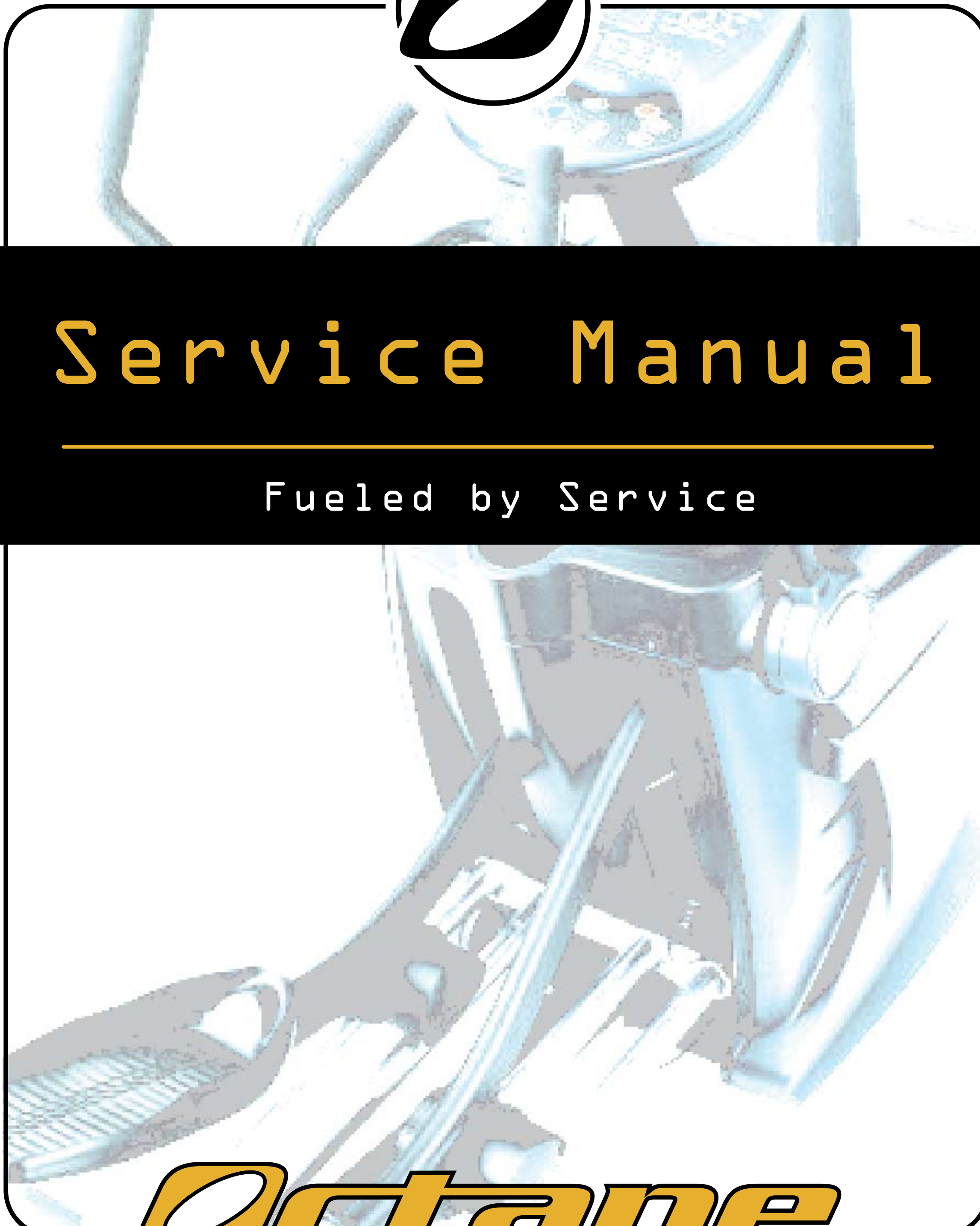
Q45/Q45e/Q45ce



Service Manual

Fueled by Service

Octane™ FITNESS

Q45/Q45e/Q45ce
Service Manual
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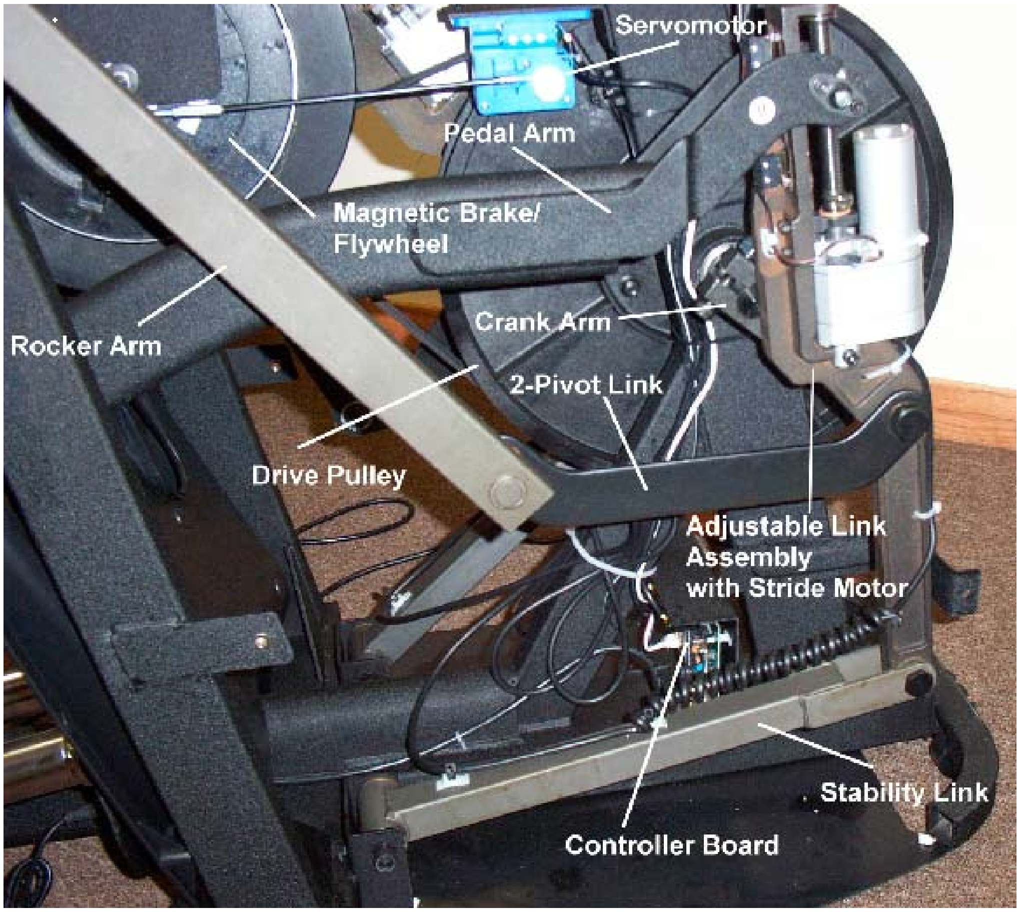


Figure 1.1

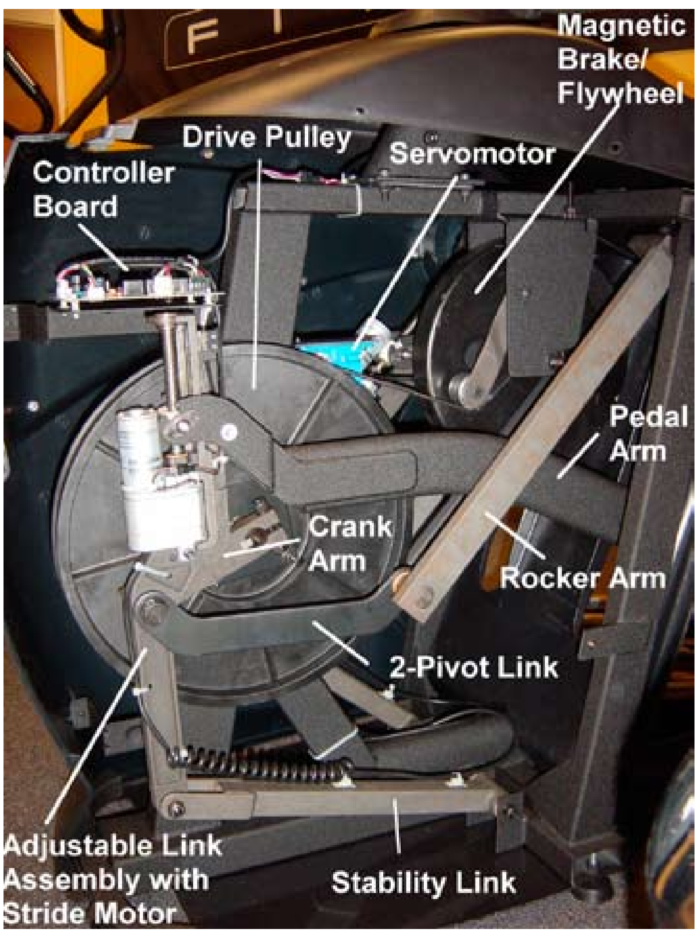


Figure 1.2

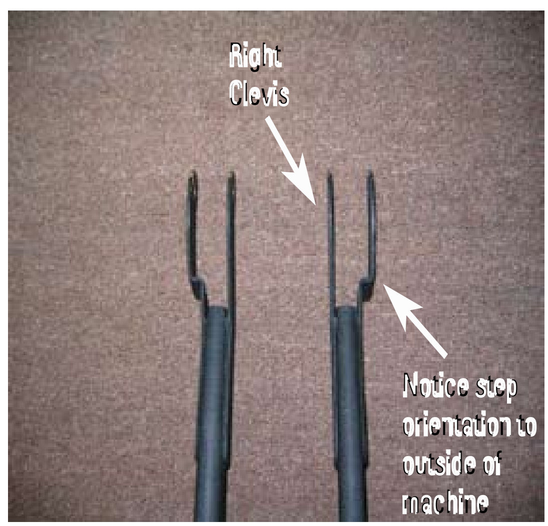


Figure 1.3

SECTION I: General Service Tips
1.1 Part Locations

Figure 1.1 highlights the locations of the main components of the Q45/Q45e/Q45ce linkage system. Figure 1.1 represents units with Serial Numbers ranging from ________________ to ________________; Figure 1.2 illustrates the modified location of the controller board in units having Serial Numbers _______________ and higher.

"Right" and "Left" assemblies and motors are indicated by "R" and "L", respectively, either etched into the metal or on a decal.The right and left pedal arms are differentiated by the stepped out clevis; the step should be oriented to the outside of the unit, as shown in Figure 1.3. The following key components are not shown in the picture:

- ❑ ***Moving handlebars***
- ❑ ***Speed sensors*** (2), mounted onto frame
- ❑ ***Two-piece wire harness***, coming down from the console

***WARNING: LINKAGES PRESENT NUMEROUS PINCH POINTS. USE CAUTION TO AVOID INJURY.**


Window 1
Window 2
Window 3
Window 4
Time
Time in Zone
Distance
Heart Rate
Speed
Heart Rate %
Calories
Stride
Target HR
Level
Matrix
GLUTE
HAMSTRING
QUAD
CALF
SMARTSTRIDE
HEARTLogic
XMode+
GluteKicker
Push-Arms
Pull-Arms
Slow
Lean Back
Lower Body Only
Fast
Squat
Reverse
X Mode+
P1 Manual
P2 Random
P3 Interval
P4 Hill
P5 10K
P6 Fat Burn
P7 Cardio
P8 HR Interval
P9 HR Hill
P10 HR Speed Interval
Starter
PowerWalk
Stride Interval
Dual Direction
Arm Blaster
My Quick Start 1
My Quick Start 2
Quick Start
SMART STRIDE
X Mode+
Glute Kicker
Pause Clear
Now-Zone
Cool Down
Enter
Time
Program
Stride
Level
Weight
Age
1
2
3
4
5
6

Figure 1.4

1.2 Diagnostic Mode Settings and Error Codes

The Q45/Q45e/Q45ce elliptical machine offers a diagnostics mode to test the console and brake functions. To enter the diagnostics mode, hold down the Time +/- and Level +/- keys simultaneously for three (3) seconds. The tests and results are displayed in the console windows (as shown in Figure 1.4, upper and lower keypads), as indicated in the chart below. The first three tests (D1 through D3) run automatically. You must use the +/- keys to navigate through the remaining diagnostic tests options, pressing Enter to select the test you want to perform. The following diagnostics are available on the Q45/Q45e/Q45ce:

Description	Matrix	Window 1	Window 2	Window 3	Window 4
Check memory		D1			
Brake motor test	RESISTANCE TEST			D2	1-30
Check all keys (You must press each key and listen for the beep to verify that it works properly before you can move on to the next test).				D3	
Check all LEDs (Machine cycles through all LEDs in all windows; when you have verified all LEDs, press any + key to move to the next test.)	All LEDs light up	All LEDs light up	All LEDs light up	All LEDs light up	All LEDs light up
Software version		Version #	Version #	Version #	Version #
Total distance of machine	TD	Distance value			
Total time of machine usage	TT	Usage hours			
Total motor on time	MOT	Motor on hours			

When you first enter the diagnostic mode, three customization features are displayed which allow some default settings to be changed. Press any + or - key to change a setting; press Enter to advance to the next feature.

Description	Matrix	Window 1
SmartStride RPM Delta: Allows you to set the RPM delta. Range is 5 to 15 RPM.	SSRD	Value in RPM (Default = 5)
Smart Stride Check Time: Allows you to set the number of seconds between RPM checks after the stride motors stop moving. Range is 5 to 15 seconds.	SL	Value in Seconds (Default = 5)
Warm-up on/off: Allows you to de-activate the 3-minute warm-up period for non-heart rate-controlled programs (P2-P5 and P11-P15).	WUP	“On” or “Off” (Default = ON)

To exit the diagnostics and customization mode and save your changes, press the Pause/Clear button twice within 2 seconds.

Error Codes

The Octane Q45/Q45e/Q45ce elliptical machine displays four errors indicating faulty components:

Display	Definition
Err1	Servomotor (brake motor) issues
Err2	Left stride motor issues
Err3	Right stride motor issues
Err4	RPM of #1 route
Err5	RPM of #2 route
Err6	Low limit switch issue, left stride motor
Err7	High limit switch issue, left stride motor
Err8	Low limit switch issue, right stride motor
Err9	High limit switch issue, right stride motor
Err10	EEPROM
Err11	Communication issues

Please contact Octane Fitness Customer Service for guidance in diagnosing and resolving these error codes. Resolution may require replacement of parts. Octane strongly suggests that you keep an inventory of key parts on hand so that you and your customer will not experience delays in resolving issues due to parts ordering and shipment. Refer to the Suggested Dealer Stock List for more information.

1.3 Suggested Dealer Stock List

Octane Fitness suggests that dealers and service technicians maintain a minimal inventory of commonly needed parts and supplies so that customer service issues may be promptly and accurately addressed. The following table identifies parts and recommended stock quantities for your inventory.

Part Number	Description	Suggested Quantity
10B722JM	CHEST STRAP WITH TRANSMITTER	2
110428CU	ELASTIC STRAP FOR CHEST MONITOR	2
10B727R2	HR SENSOR CABLE ONLY	2
1005-SPS4501-01	Q45 POWER TRANSFORMER	2
10B827KH	Q45 ACTUATOR NUT LEFT	2
10B827HB	Q45 ACTUATOR NUT RIGHT	2
10B826KW	Q45 ADJ LINK ASS'Y LEFT W/MOTOR	2
10B826KV	Q45 ADJ LINK ASS'Y RIGHT W/MOTOR	2
10B826KX	Q45 BELT TENSION ASS'Y W/BEARING	2
10B826KG	Q45 BRAKE ASS'Y	1
10B826K9	Q45 BRAKE CABLE	2
10B826K8	Q45 CONTROLLER BOARD	3
10B826K3	Q45 DC SERVO MOTOR	2
257226LB	Q45 DRIVE BELT	2
29WH2	Q45 SHAFT RETAINER	4
10B8291H	Q45 ROLLER WHEELS	8
10B8291V	Q45/E HARDWARE PACK	3
	SHROUD, BACK -- NO DECALS Q45	2
	Q45 SHROUD, LEFT WITH CHROME PIECE	2
	Q45 SHROUD, RIGHT WITH CHROME PIECE	2
	TOP SHROUD	2
Q-CONS-SIM	CONSOLE, STANDARD	2
Q-CONS-DLX	CONSOLE, DELUXE	2
	Q45 SMART DRIVE CHIP	2
10B8287J	Q45 LOWER WIRE HARNESS	1
10B826JY	Q45 UPPER WIRE HARNESS	1
10B826JX	SPEED SENSOR -Q45	2
100088-001	STATIONARY GRIPS, FOAM	2
100087-001	MOVING HANDLEBAR GRIPS, FOAM	2
10B8291U	OWNER MANUAL, Q45	6
1A501301	FLYWHEEL MAGNET	2
10B721WX-1	DECAL, SIDE SHROUD	4
	DECAL, CAUTION	4
	DECAL, CONSOLE BACK, ALL SILVER	4
	DECAL, CONSOLE BACK, ALL BLACK	4
	DECAL, PIVOT COVER	4
	CHIP PULLER	2

Figure 2.1


Figure 2.2

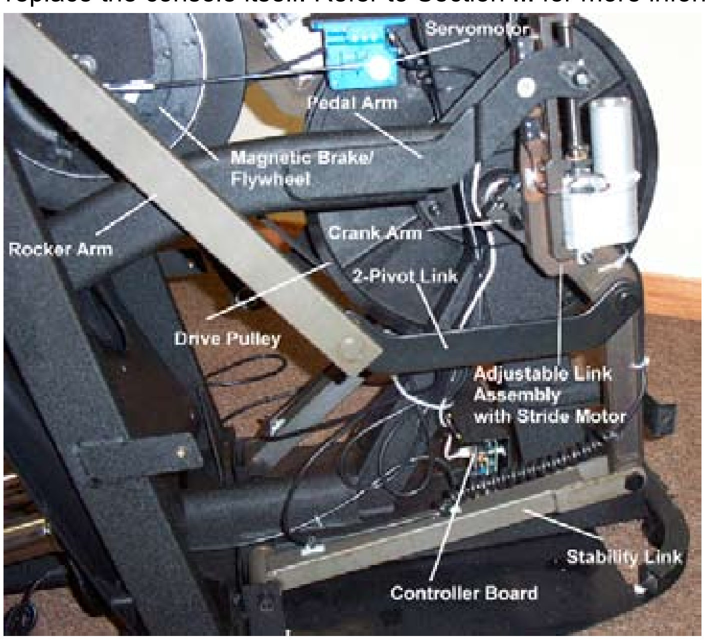

Figure 2.3

SECTION II: Troubleshooting Tips
2.1 Power/Electrical Issues

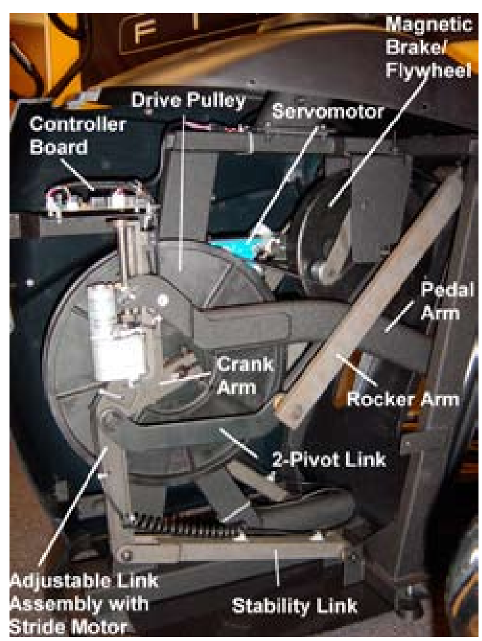
The General Service Information Manual provides directions for removing shrouds to access the inside of the unit.

Issue	Possible Cause	What to Do
No power to the console.	Loose or improper plug-in at wall or unit.	❑ Check that the power supply is properly and securely plugged in to a working AC power outlet (wall plug-in). ❑ Check that the power supply cord is properly and securely inserted into the power input jack located below the right roller track (Figure 2.1).
	Loose or improper electrical connections within unit.	❑ Unplug the machine, then remove the four (4) screws securing the console to the console upright tube. ❑ Unplug and re-plug the cable into the console to ensure it is a good connection (Figure 2.2). ❑ Check and secure the upper wire harness connections, at the base of the upright post (Figure 2.3). ❑ Check and secure the lower wire harness connections at the controller board and the servomotor (Figure 2.4). ❑ Plug in the machine to verify power to the console.

If power is not restored to the console after all the connections have been checked and secured, you may need to replace the console itself. Refer to Section III for more information.



Units with controller mounted near the floor.



Units with controller mounted above flywheel

Figure 2.4

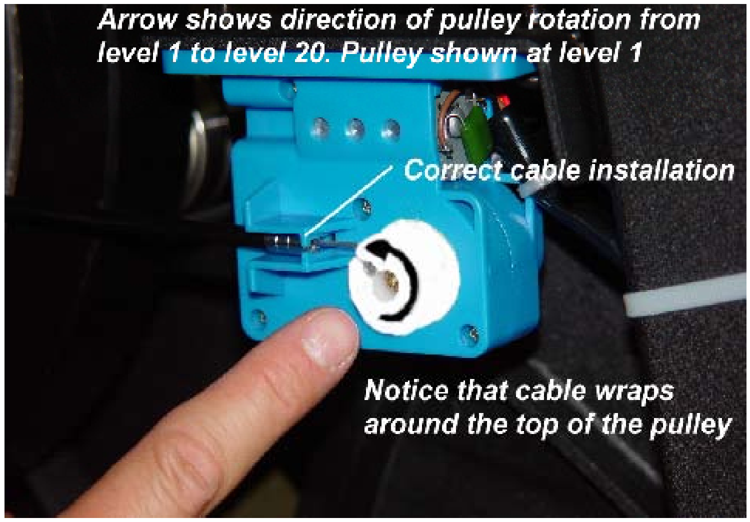


Figure 2.5

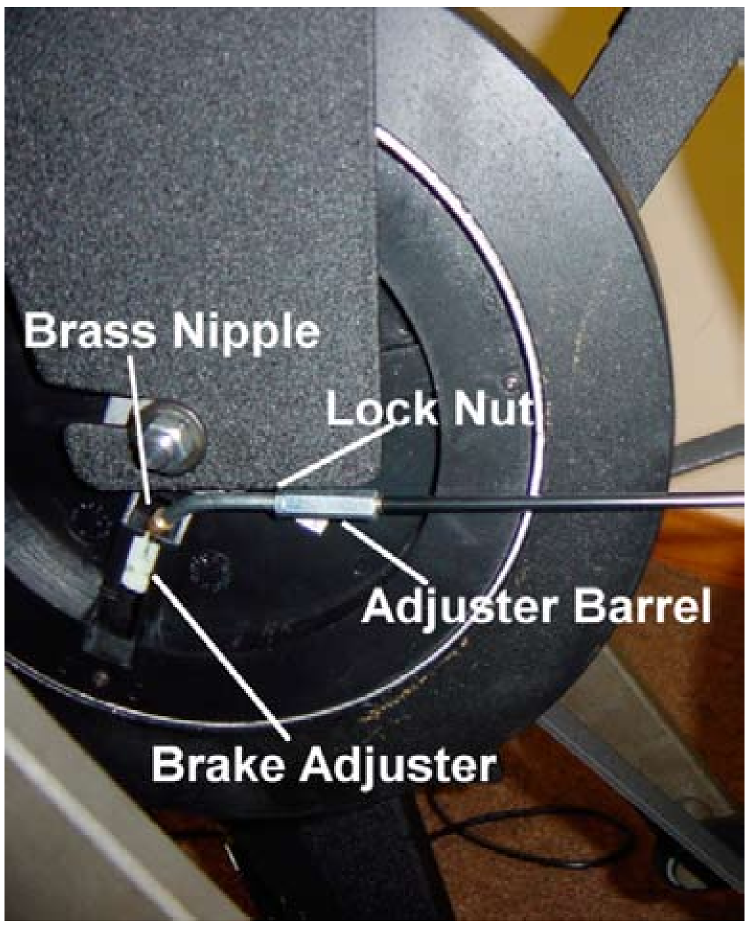


Figure 2.6

2.2 Resistance Issues

The General Service Information Manual provides directions for removing shrouds to access the inside of the unit.

Issue	Possible Cause	What to Do
Resistance is too high (rollers are difficult to move on lowest resistance setting).	Console setting is incorrect.	❑ For shipping, the unit is set on the highest resistance (level 20) to prevent linkage movement during shipment. After power is plugged in, the unit should automatically reset itself to level 1. ❑ Using the console arrow keys, verify that the unit is set to level 1.
	Brake cable is improperly installed or aligned.	❑ Inspect the servomotor and cable. The cable must be installed correctly, positioned to wrap around the top of the servomotor pulley as it rotates counterclockwise to increase resistance. On level one, the cable and pulley should be positioned as shown in Figure 2.5, with the notch on the pulley oriented to “10 o’clock”. (Note: the arrow in Figure 2.5 is for illustration only; no arrow is imprinted on the pulley itself.) ❑ Inspect the cable and brake. The brake adjuster must be located at the top of its slot when the machine is set to level 1. Use a flashlight to look through the right pedal level slot on the back shroud to verify that the brake adjuster is in the proper position (shown in Figure 2.6). ❑ Use a screwdriver to gently push the brake adjuster up to ensure that it is properly positioned at the top of its slot. ❑ If the brake is not fully disengaged or the cable has too much slack when the cable is properly installed and the brake adjuster is in its proper position for level 1, you may need to re-install or adjust the cable. Refer to Section III for instructions.

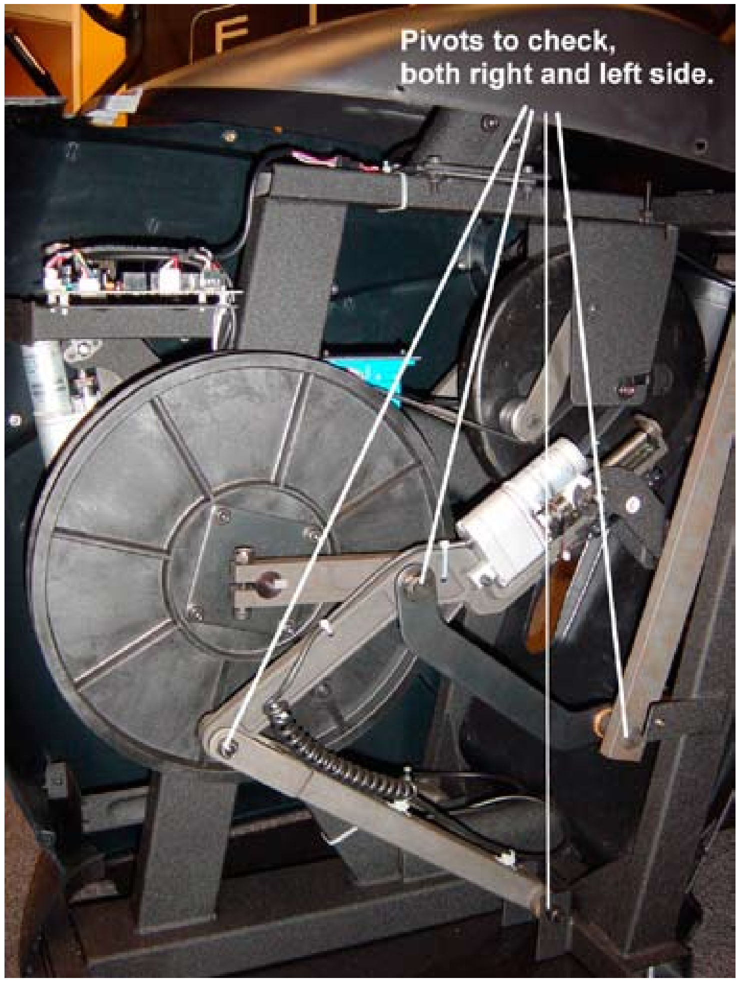


Figure 2.7

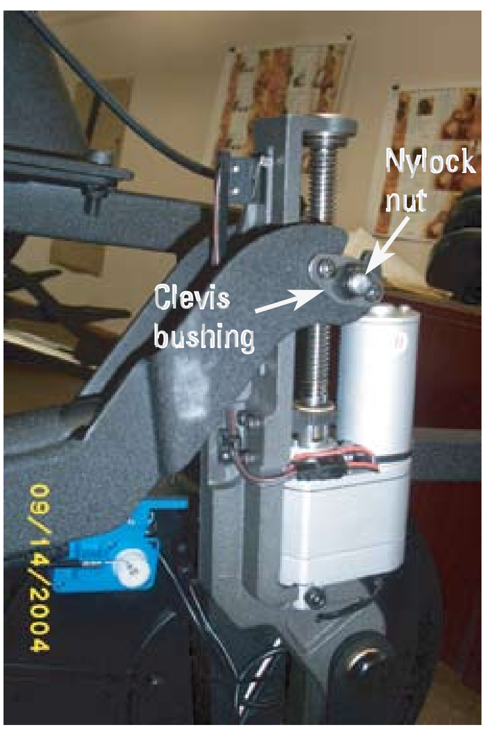


Figure 2.8

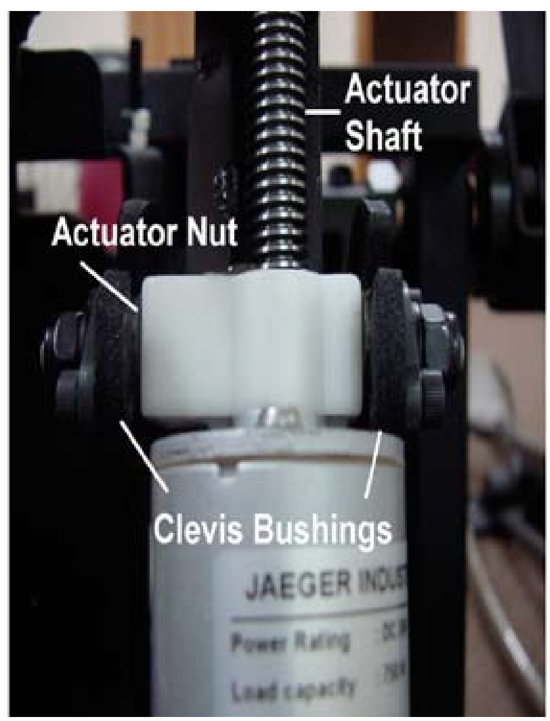
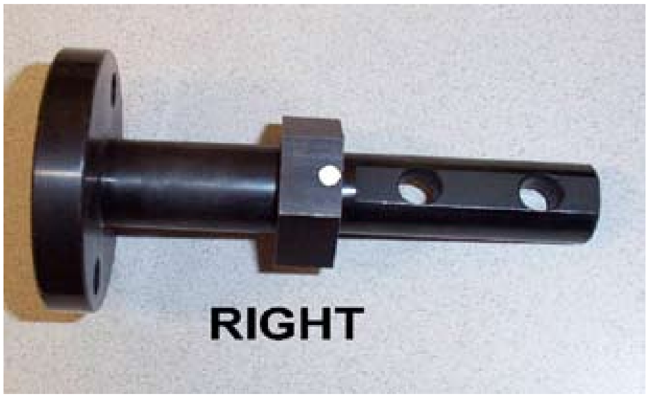


Figure 2.9

Issue	Possible Cause	What to Do
Resistance is too high (unit is difficult to pedal on lowest resistance setting).	Pivot bolts are too tight; pivot bolts should be snug but not overly tight.	❑ Pedal the unit for 2-4 minutes. Then stop and touch each pivot point on the linkages (Figure 2.7). Any are that is hot to the touch may be overtightened or may be out of alignment and should be adjusted. ❑ Loosen and re-tighten all pivot bolts (four on each side of the machine), beginning with the pivot bolt where the pedal arm connects to the top of the adjustable link assembly. Figure 2.7 shows the locations of the pivot bolts.
	Pedal arm/top of adjustable link assembly is assembled improperly; the two actuator bushings and nylock nuts may be improperly seated into the pedal arm clevis.	❑ Loosen the two nylock nuts on the pedal arm at the top of the adjustable link assembly (Figure 2.8). ❑ Re-tighten the pedal arm bolt. Make sure it is properly seated and snug but not overly tight.
	Clevis bushing at the pedal arm is too tight.	❑ The white plastic actuator nut is held in place at the pedal arm by the clevis bushing (Figures 2.8 and 2.9. ❑ Remove the nylock nut. ❑ Use while lithium grease to lubricate the actuator nut posts where the clevis bushing slides. ❑ Move the clevis bushing to ensure that it slides freely. ❑ Replace and tighten the nylock nut.



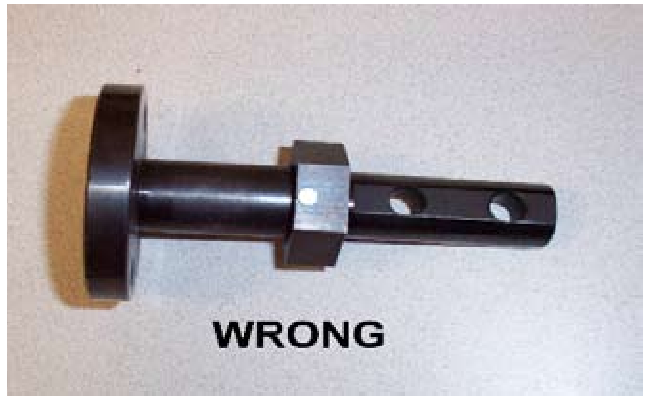


Figure 2.10

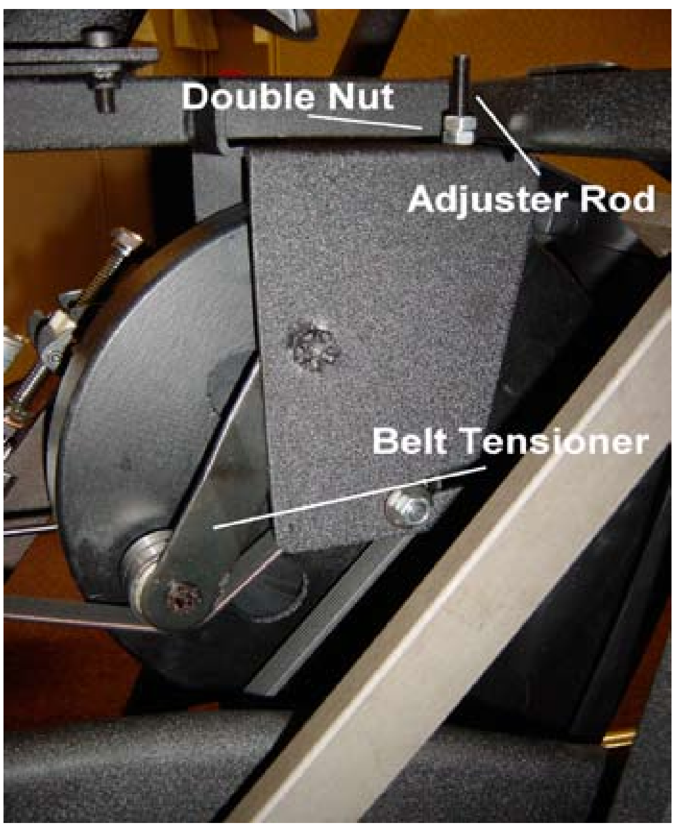


Figure 2.11

Figure 2.12

Issue	Possible Cause	What to Do
Resistance is too high (unit is difficult to pedal on lowest resistance setting).	Arm pivot shaft collar nut is too tight; pivot shafts should feel solid, neither wobbly nor too tight.	❑ Loosen the two set screws on the collar nut while holding the pivot shaft in place, then re-tighten the set screws so that the handlebars move freely but do not wobble. The collar nut should be oriented so that the set screws are positioned toward the holes on the shaft (toward the middle of the machine), as illustrated in Figure 2.10. (The white dot in Figure 2.10 is for illustration only and does not appear on the actual hex collar.)
	Drive belt tension is too high.	❑ With your fingers, twist the drive belt between the belt tensioner and the drive pulley; it should twist approximately 90º. ❑ To loosen the belt, locate the double nut setup on the adjuster rod (Figure 2.11). Loosen the first one, back off the other one full turn, then re-tighten the first. Recheck the drive belt tension as above, making sure that slippage does not occur between the belt and the pulley while pedaling the unit and when changing direction while pedaling.
	Belt tracking is off center.	❑ The drive belt should ride in the center, not shifted to the right or left (Figure 2.12). If it is off center, you may feel some added resistance and will hear a rubbing or swishing noise. ❑ Inspect the belt tensioner (Figure 2.11). If it is bent, causing the belt to be off center, replace it following the directions in Section III.


Figure 2.13

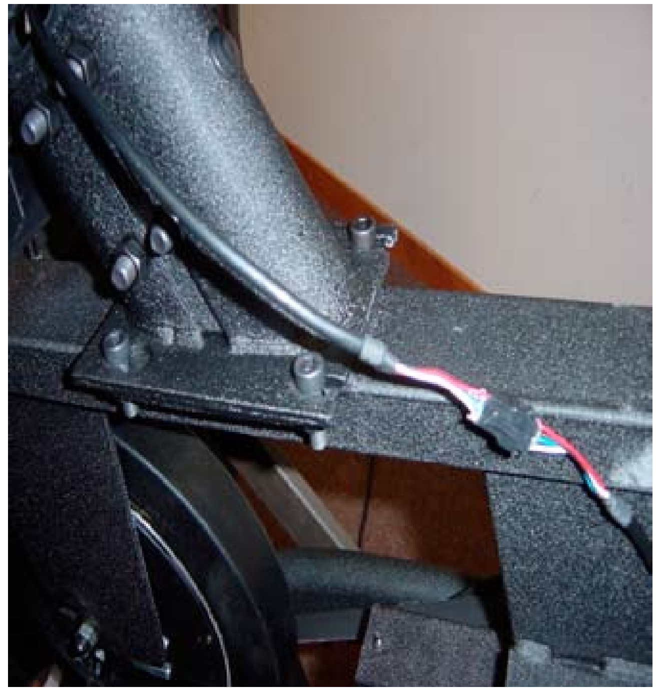


Figure 2.14

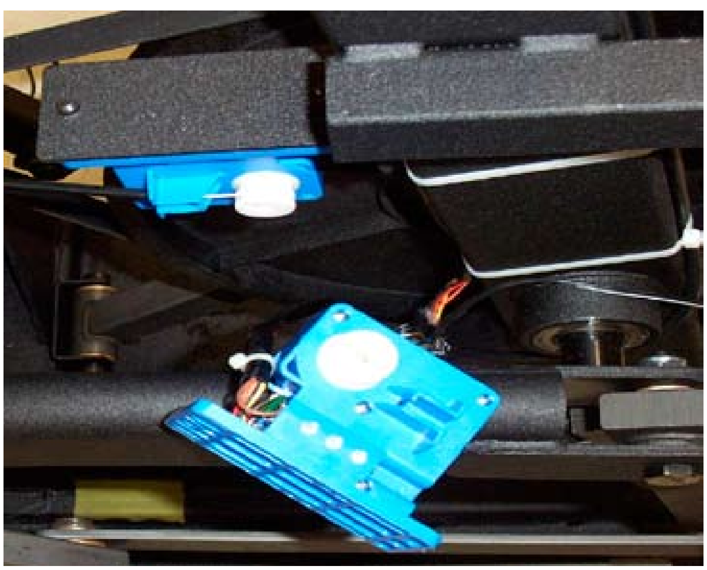


Figure 2.15

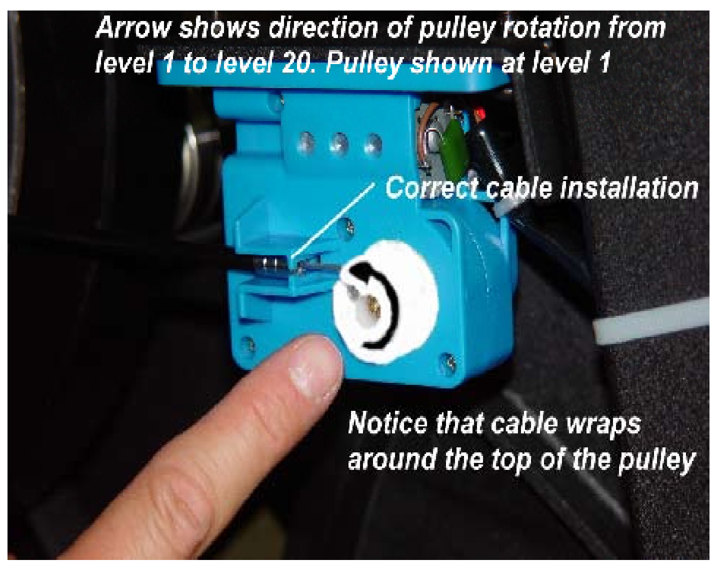


Figure 2.16

Issue	Possible Cause	What to Do
No resistance change.	Console is not properly connected.	❑ Unplug the machine, then remove the four (4) screws securing the console to the console upright tube. ❑ Unplug and re-plug the cable into the console to ensure it is a good connection (Figure 2.13). ❑ Check and secure the upper wiring harness connections, at the base of the upright post (Figure 2.14).
	Faulty console key.	❑ Use the Level +/- keys to increase and then decrease the resistance. If you are able to change resistance in one direction but not the other, you may have a faulty key on the console. Replace the keypad overlay according to the directions in Section III.
	Faulty console.	❑ If the resistance still does not change when you change levels on the console, unplug the cable and plug it into a new console. If this resolves the issue, replace the old console with the new one according to the directions in Section III.
	Faulty wiring (cable assembly).	❑ Use the Level +/- keys to increase and decrease the resistance. If the servomotor does not respond, and "Err1" is ***not*** displayed on the console (indicating a servomotor issue), replace the cable assembly according to the directions in Section III. ❑ Plug the servomotor, speed sensor, and power jack cable into the new wiring harness and verify that all functions are working.
	Faulty servomotor.	❑ If "Err1" is still displayed, unplug, but do not remove, the old servomotor. Place a new servomotor on its side on top of the pedal arm and plug it in, as shown in Figure 2.15. Power on the machine, then push the Level + button to move the resistance through levels 1 to 20, and then push the Level - button to move the resistance back down through all levels. Verify that the pulley is in the proper position at level 1, with the notch on the pulley oriented to "10 o'clock". (Figure 2.16). If it is not, contact Octane Fitness Customer Service for further assistance in making the proper adjustment. ❑ If this resolves the issue, complete the installation of the new servomotor according to the directions in Section III.

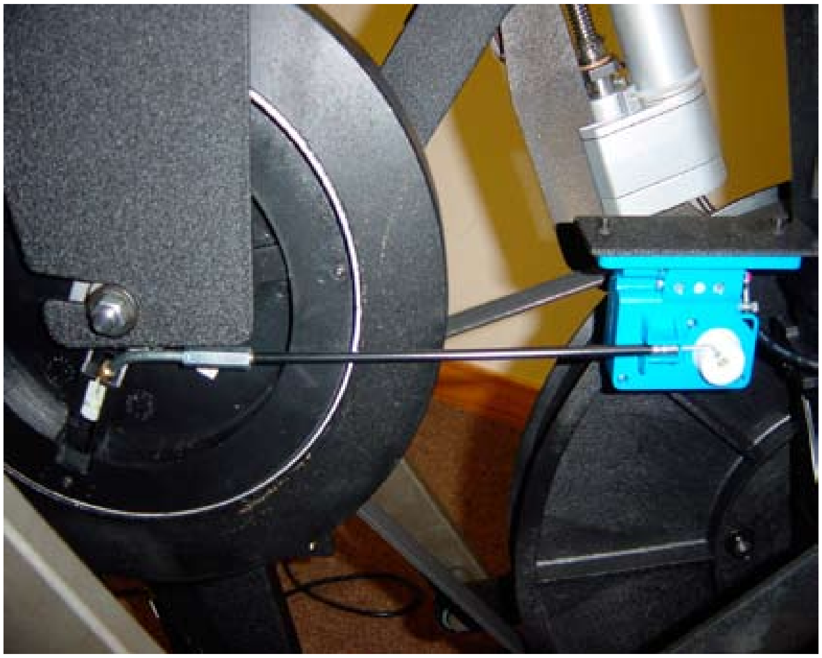


Figure 2.17

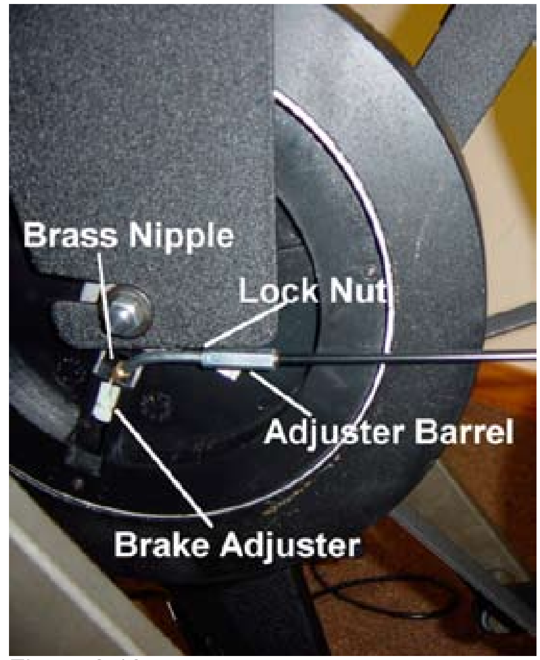


Figure 2.18

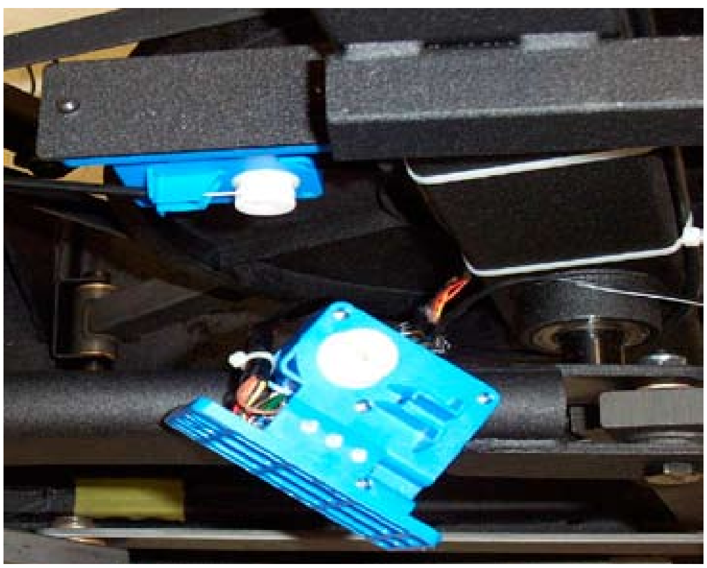


Figure 2.19

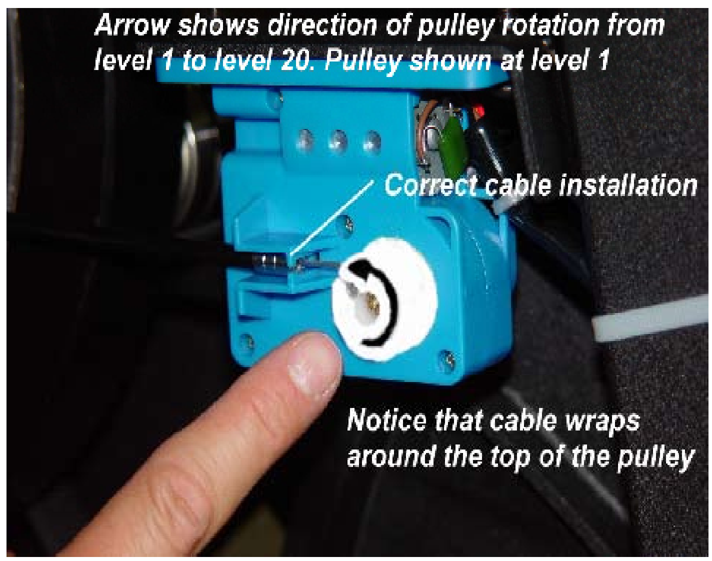


Figure 2.20

Issue	Possible Cause	What to Do
"Err1" is displayed on the console, indicating servomotor issues.	Brake cable is incorrectly positioned or too tight.	❑ Verify that the brake cable is installed correctly, as shown in Figure 2.17 The brake adjuster must be at the top of its slot at resistance level 1. ❑ Unplug the unit at the base. Loosen the adjuster barrel slightly to reduce cable tension (Figure 2.18). Plug in the unit and check that "Err1" is no longer displayed.
	Servomotor not working.	❑ Unplug the unit. Check the cable assembly. It may be zip-tied too tightly to the frame, damaging the wire and interrupting power to the servomotor. If the cable assembly has been damaged by the zip-tie, cut the zip-tie and replace the cable assembly according to the directions in Section III. Re-secure the cable assembly to the frame, plug in the unit, and check that "Err1" is no longer displayed. ❑ If "Err1" is still displayed, unplug, but do not remove, the old servomotor. Place a new servomotor on its side on top of the pedal arm and plug it in, as shown in Figure 2.19. Power on the machine, then push the Level + button to move the resistance through levels 1 to 20, and then push the Level - button to move the resistance back down through all levels. Verify that the pulley is in the proper position at level 1, with the notch on the pulley oriented to "10 o'clock". (Figure 2.20). If it is not, contact Octane Fitness Customer Service for further assistance in making the proper adjustment. ❑ If this resolves the issue, complete the installation of the new servomotor according to the directions in Section III.
	Faulty console.	❑ Unplug the machine, then remove the four (4) screws securing the console to the console upright tube. ❑ Unplug the cable and plug it into a new console, listening for the click to ensure a good connection. Plug in the unit and check. If this resolves the issue, complete the installation of the new console according to the directions in Section III.
	Brake is stuck and the servomotor is unable to move it.	❑ Adjust the brake cable according to the directions in Section III. ❑ Using a screwdriver, slide the brake adjuster up toward the center of the brake to ensure it is not stuck in the slot. ❑ If the brake remains stuck, replace the brake assembly according to the directions in Section III.

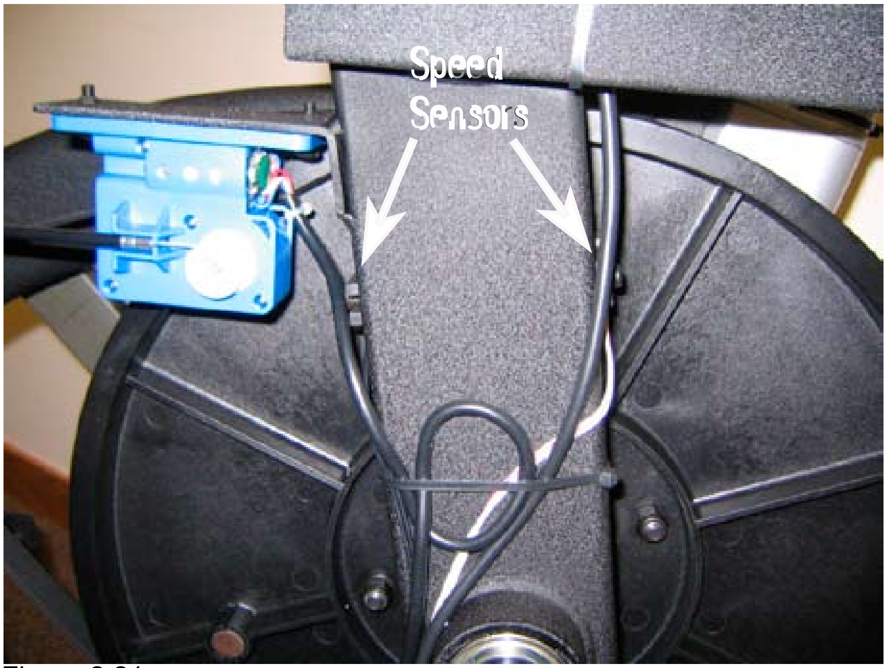


Figure 2.21

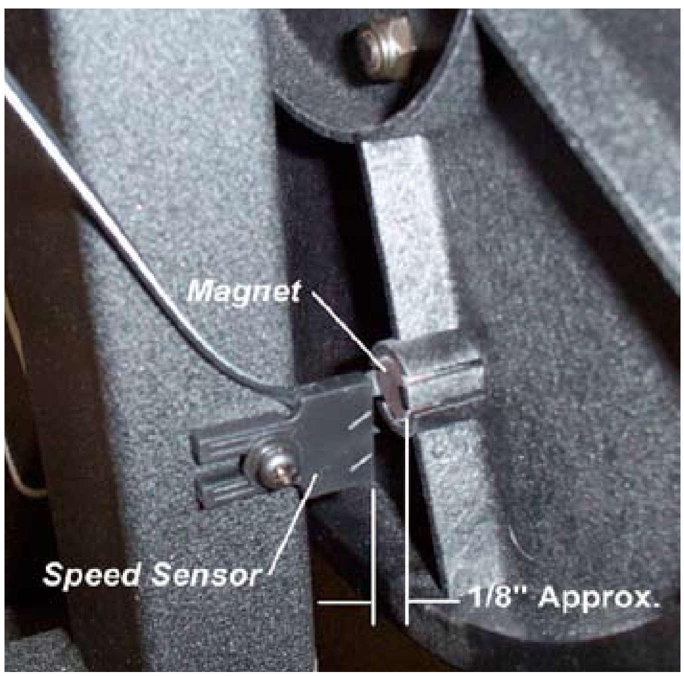


Figure 2.22

2.3 Console Issues

The General Service Information Manual provides directions for removing shrouds to access the inside of the unit.

Issue	Possible Cause	What to Do
Machine enters “pause” mode while in use.	Speed sensors are improperly connected or aligned.	❑ The Q45/Q45e/Q45ce has two speed sensors to detect forward and reverse motion. The speed sensors must be properly aligned with the magnet (Figure 2.21). ❑ Disconnect and reconnect each speed sensor at the cable harness to ensure a good connection. ❑ Check the position and alignment of the speed sensors and magnet, as shown in Figure 2.22. ❑ To adjust the position of a speed sensor, loosen the set screw and gently slide the speed sensor wire harness so that it is approximately 1/8-inch from the magnet, and level, then re-tighten the screw.
	Magnet is not magnetic or is missing.	❑ Verify that the magnet is magnetic by touching it with a steel screwdriver. If it is not, contact Octane Fitness Customer Service for assistance. ❑ Verify that the magnet is installed in the drive pulley. If it is missing, contact Octane Fitness Customer Service for assistance.
	Faulty console, speed sensors, or upper wire harness.	❑ If the speed sensors and magnet are properly installed, positioned, and aligned, you will need to test for faulty components. Refer to Section III for instructions on replacing a console, speed sensor, or upper wire harness.
Console-entered program parameters (weight, level, etc.) and/or “My Quick Starts” (on Q45e/Q45ce) are not being retained in memory.	Faulty software.	❑ Unplug the machine, then remove the four (4) screws securing the console to the console upright tube. ❑ Unplug the cable and plug it into a new console, listening for the click to ensure a good connection. Plug in the unit and check. If this resolves the issue, replace the software micro-controller in the console with the new one according to the directions in Section III.

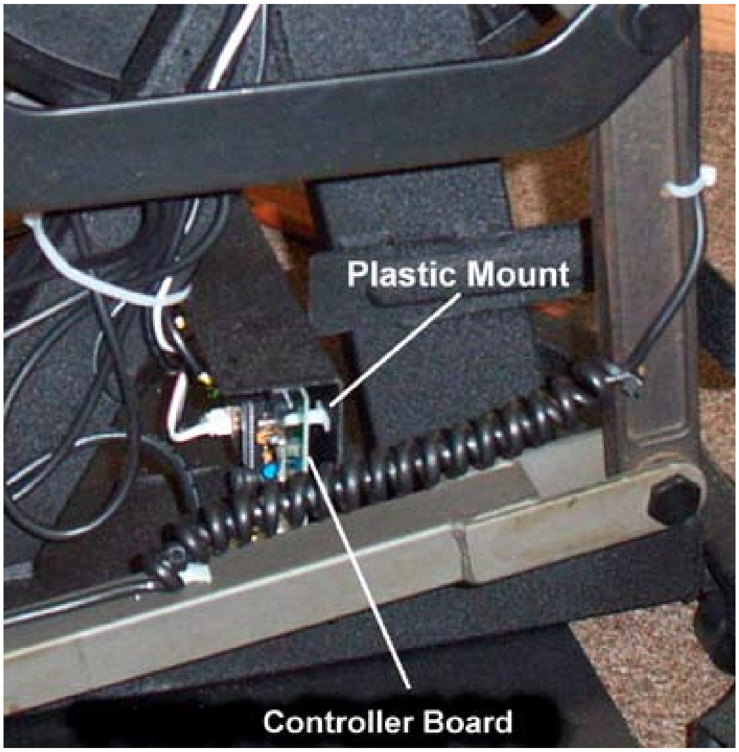


Figure 2.23

Figure 2.24

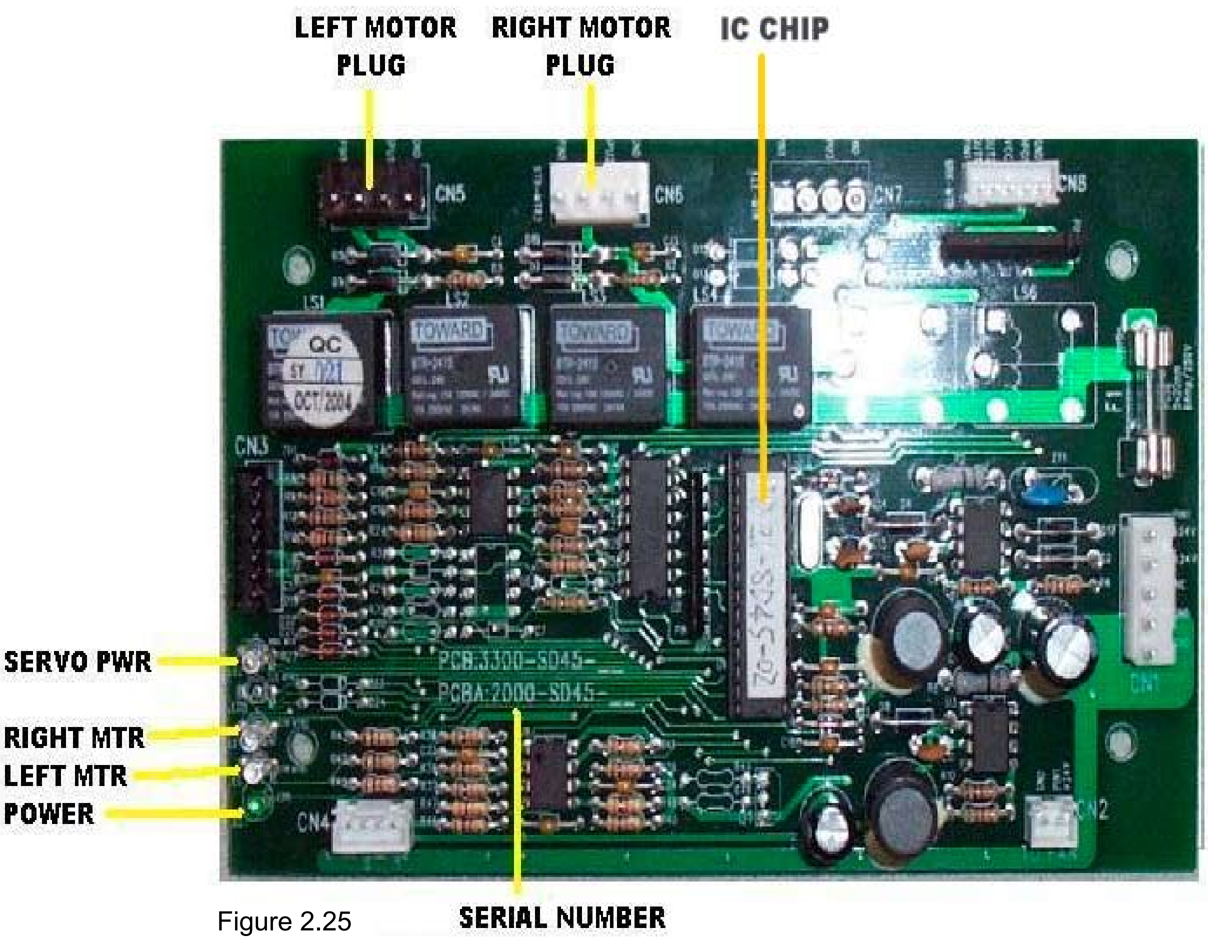


Figure 2.25

Figure 2.27

Issue	Possible Cause	What to Do
“Err2” (left) or “Err3” (right) is displayed on the console.	Stride motor plug issues.	❑ Locate the controller board, either directly under the main drive pulley (Figure 2.23) or on the right shroud mounting tube attached to the main upright tube (Figure 2.24). ❑ Unplug the Left (black) and Right (white) stride motor plugs from the controller board and reverse their positions, plugging the black plug into the white socket and the white plug into the black socket (Figure 2.25). ❑ Plug in the unit. After the motors stop moving (8 to 15 seconds), unplug the unit again. ❑ Ground yourself before touching the circuit board. Unplug the stride motor plugs from the controller board and plug each one back into its default socket: Left (black) plug into the black socket and Right (white) plug into the white socket (Figure 2.26). ❑ If the stride motor (left or right) causing the error is unresponsive, it should be replaced following the directions in Section III.

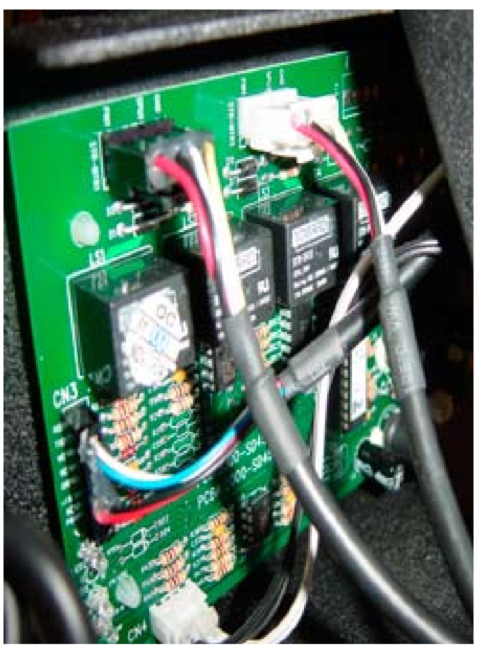


Figure 2.26

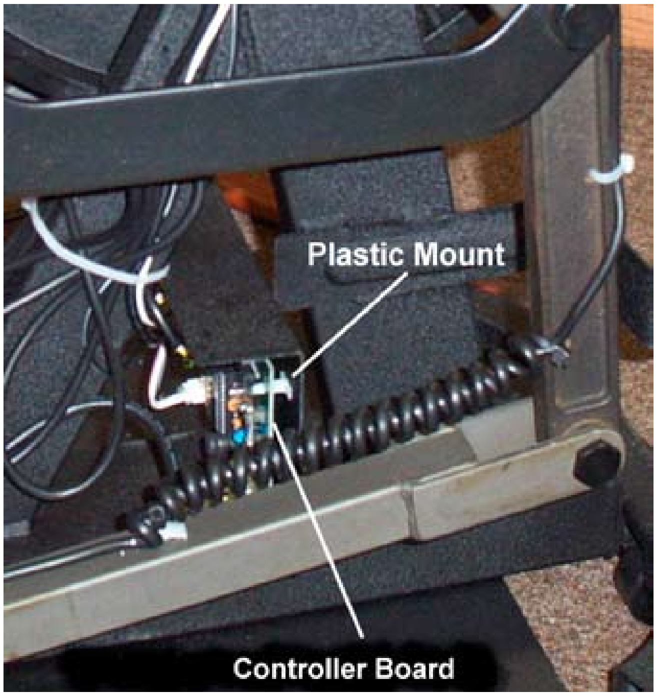


Figure 2.27

Figure 2.28

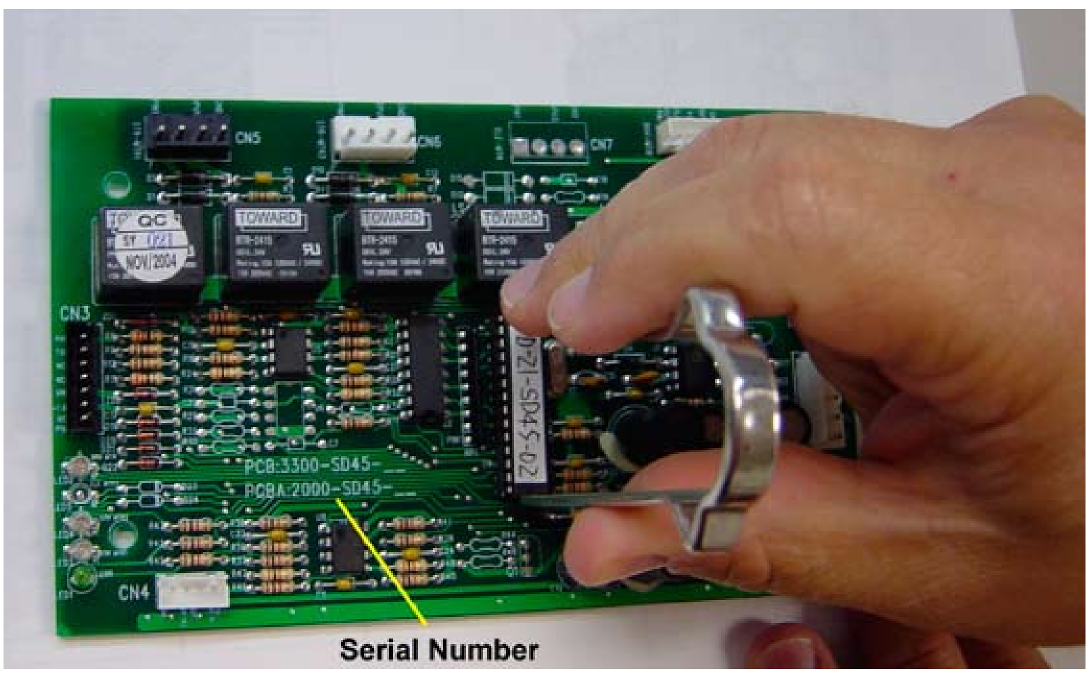


Figure 2.29

Issue	Possible Cause	What to Do
“Err2” (left) or “Err3” (right) is displayed on the console.	Faulty communications chip on controller board.	❑ Unplug the unit. Remove the Q45/Q45e/Q45ce controller board from the frame. The controller board is located directly under the main drive pulley (Figure 2.278) or on the right shroud mounting tube attached to the main upright tube (Figure 2.28). ❑ Ground yourself before touching the circuit board. Use a chip puller to gently remove the old IC chip (PD-21-SD45-XX), shown in Figure 2.29. ❑ Be sure the new chip is facing the same direction as the old one. Note the orientation of the stamped “half moon” marking on the black plastic portion of the chip. Align the pins of the new IC chip (PD-21-SD45-03) with the socket and gently press it into place, taking care not to bend the pins. ❑ Plug in the unit. Verify that the “Err2” or “Err3” is no longer appearing on the console. If the issue is resolved, reattach the controller board to its position on the frame. Note: If “Err11” is displayed, or if all the LEDs are lit, the new chip is seated in its socket upside down, and you will need to remove it and reinsert it in the socket correctly. ❑ If the stride motor (left or right) causing the error moves up one turn upon reset instead of returning down to the default position, the controller board must be replaced following the directions in Section III.
	Faulty controller board.	❑ Determine the version number of the controller board by looking at the last two digits of the serial number: Version 2 ends in “SD45-X2” and Version 3 ends in “SD45-_ _”. (Figure 2.29). ❑ If the controller board is ***not*** Version 3, and the steps on the previous page have failed to resolve the error condition, you will need to replace the controller board according to the directions in Section III.
	Faulty stride motor.	❑ If a motor is completely unresponsive when you reverse the plug-ins as described on the previous page, you will need to replace the adjustable link assembly according to the directions in Section III.
	Faulty power supply.	❑ If the console flickers or is dimming just prior to the “Err2” or “Err3”, replace the power supply and test.

Figure 2.30

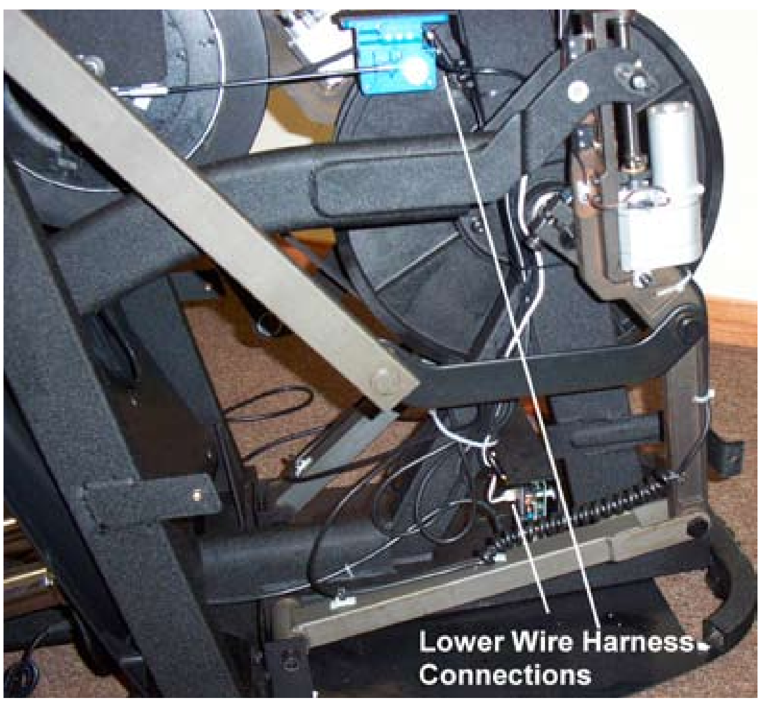


Figure 2.31

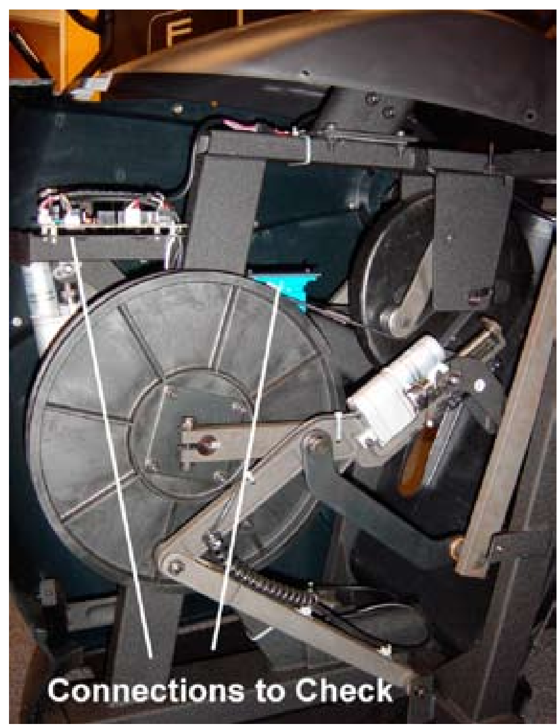


Figure 2.32

Issue	Possible Cause	What to Do
“Err6”, “Err7”, “Err8”, or “Err9” is displayed on the console, indicating limit switch issues.	Faulty limit switch assembly on stride motor.	❑ Unplug the unit. ❑ If the unit is new (that is, just out of the box), unplug and re-plug the limit switch assembly at the stride motor (Figure 2.30) to ensure a good connection. ❑ If the unit is not new and has previously been working without displaying these errors, check the plug-in for the limit switch assembly (Figure 2.30). If it is connected, disconnect it and plug in a new limit switch and test. If the error is resolved, complete the installation of the new limit switch according to the directions in Section III.
“Err11” is displayed on the console, indicating a communications issue.	Faulty wiring harness.	❑ Unplug the machine. Unplug and re-plug all connections to the controller board and servomotor (Figure 2.31, older units, or Figure 2.32, newer units.). ❑ If the issue is not resolved, you will need to replace the wiring harness according to the directions in Section III.
Console buttons are not responding or are sticking.	Faulty console key.	❑ Replace the keypad overlay according to the directions in Section III.

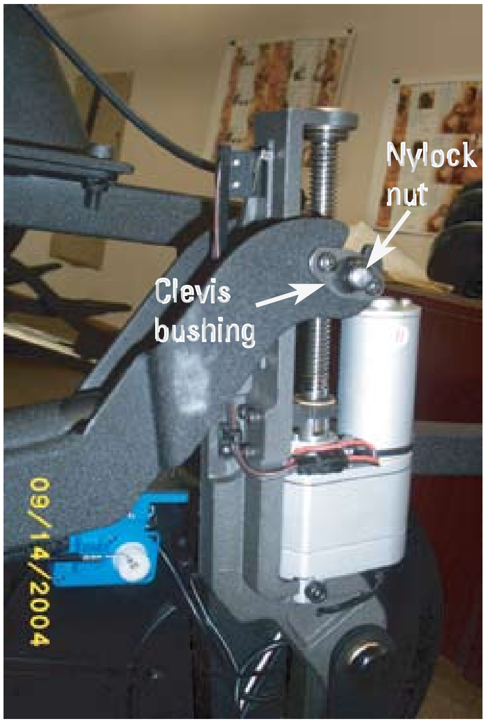


Figure 2.33

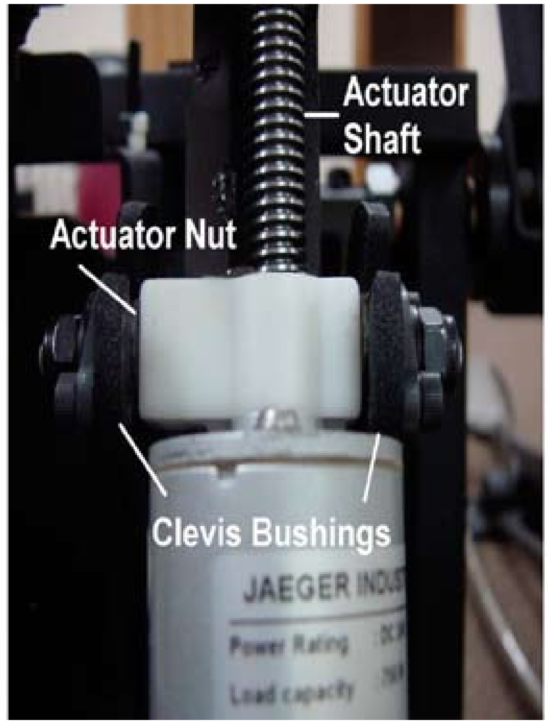


Figure 2.34

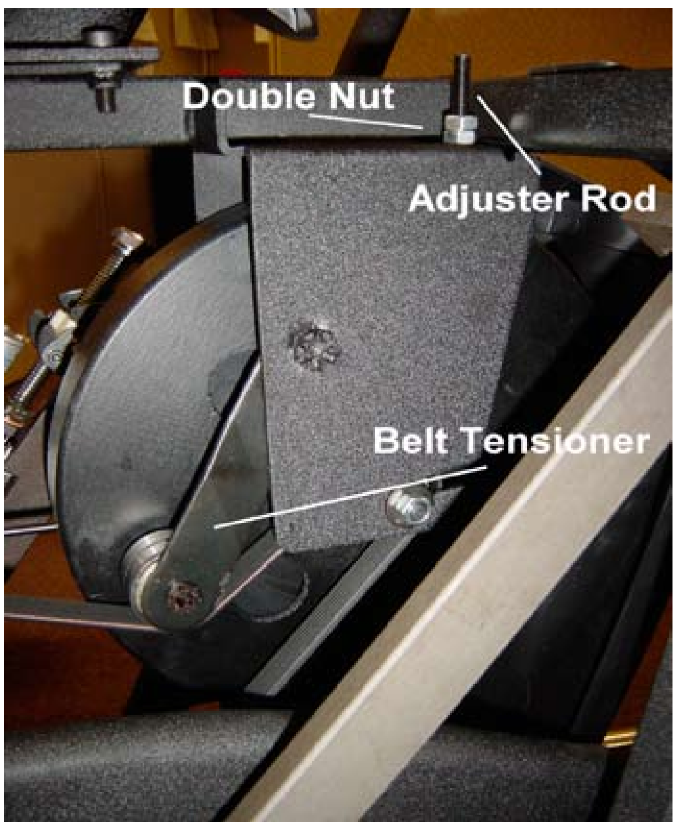


Figure 2.35

***WARNING: LINKAGES PRESENT NUMEROUS PINCH POINTS. USE CAUTION TO AVOID INJURY.**

2.4 Noise Issues

The General Service Information Manual provides directions for removing shrouds to access the inside of the unit.

Issue	Possible Cause	What to Do
Machine produces “squeaking” noise from pedal/rail area when in use.	Rubbing roller wheels.	❑ Wipe down the chrome rails with a dry rag. ❑ Apply a thin coat of white lithium grease along all four rails. **Do not use WD-40 or silicone spray.** With a clean rag or paper towel, work the grease down the chrome rails, covering the rails with a small amount of lubricant. ❑ Remove excess grease with a dry rag; only a very thin film should remain. ❑ Pedal the unit for a few minutes, then once again wipe off the chrome rails to remove any excess grease. ❑ If squeaking persists, replace the roller wheels according to the directions in Section III.
	Misaligned rails or pedal arm.	❑ Verify all wheels make contact with rails along the length of the rail at wheel level. If there is a gap between the wheel and rail you may need to replace the pedal arm or rails according to the directions in Section III.
Machine produces “squeaking” noise from within shrouds when in use.	Actuator nut is too big or broken.	❑ Remove the nylock nut and inspect the actuator nut (Figures 2.33 and 2.34); if it is broken, replace it according to the directions in Section III. ❑ Use while lithium grease to lubricate the actuator nut posts where the clevis bushing slides. ❑ Move the clevis bushing to ensure that it slides freely. ❑ Replace and tighten the nylock nut.
Machine produces “scraping” sound when in use.	Hanging wires on links.	❑ Identify and secure any dangling or rubbing wires. Use zip-ties to gently tie the cables to the frame. Be careful not to tie the wires too tightly as ties that are too tight can damage the wires and interrupt the cable signals.
	Belt tracking is off center.	❑ The drive belt should ride in the center, not shifted to the right or left. If it is off center, you may feel some added resistance and will hear a rubbing or swishing noise. ❑ Inspect the belt tensioner, shown in Figure 2.35. If it is bent, causing the belt to be off center, replace it following the directions in Section III.

Issue	Possible Cause	What to Do
Machine produces “scraping” sound when in use.	Pedal arm rubbing against rocker arm.	❑ If the scraping noise is metallic, inspect the space between the pedal arm and the rocker arm on each side of the machine while moving the pedals. This can be viewed through the slots in the back shroud. You may see where paint has been rubbed off of the arms. This inspection may need to be performed with a user on the pedal, as load on the pedal may cause contact between the links.
	Loose screws on stability links.	❑ Check and tighten the four socket head screws (17mm) attaching the stability links to the frame (Figure 2.36). ❑ Try the machine at slow and fast pace, forward and backward to see if the noise is still present. ❑ If the noise is still present, check the 2-pivot links and the adjustable link assembly for looseness and side-to-side motion. A slight side-to-side motion is normal at the rocker arm and 2-pivot link connection. No side-to-side motion should be seen in the adjustable link assembly. Section III provides directions for replacing links if necessary.
	Broken bearing or magnetic/ flywheel assembly.	❑ Inspect the brake pulley. If it is broken, replace the brake assembly following the directions in Section III.

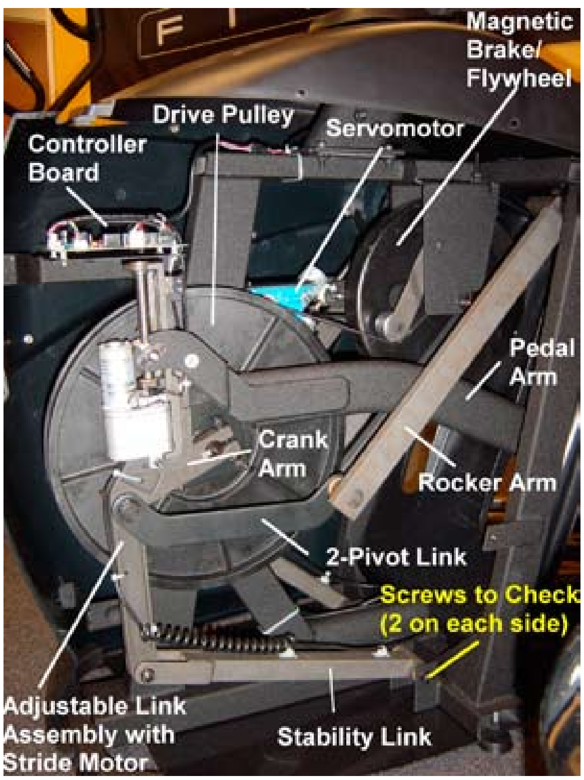


Figure 2.36

Figure 2.37

Issue	Possible Cause	What to Do
Machine produces a grinding sound from the wheel area when in use.	Cracked or broken wheel.	❑ Inspect the roller wheels. If cracked or broken, replace according to the directions in Section III.
Machine produces a popping or grinding sound from under the shrouds when in use.	Broken bearing or magnetic brake/flywheel assembly.	❑ Inspect the magnetic brake/flywheel by the pulley. If the bearing is cracked or broken, it will be popped out on the side opposite the pulley (Figure 2.37) If so, replace the brake assembly following the directions in Section III.
Machine produces "clunking" noise when in use.	Loose links, pivots, or rocker arms.	❑ Check the rails, wheels, and wheel covers to ensure that they are not rubbing against each other or against the back shroud. ❑ Open the top cover and using the moving handlebars to slowly move the machine through the full range of motion. This will help you determine if there is anything hitting and/or clunking, such as the wire harness rubbing against another part. ❑ Check to make sure all pivot joints on both sides of the machine are tight (Figure 2.36). ❑ Check and tighten the four socket head screws attaching the stability links to the frame and the four bolts attaching the crank shaft plate to the large drive pulley (Figure 2.36). ❑ Try the machine at slow and fast pace, forward and backward to see if the noise is still present. ❑Check the 2-pivot links and the adjustable link assembly for looseness and side-to-side motion. A slight side-to-side motion is normal at the rocker arm and 2-pivot link connection. No side-to-side motion should be seen in the adjustable link assembly. Section III provides directions for replacing links if necessary. ❑ If the noise persists, detach the crank arm from the middle adjustable link bolt on both right and left sides. Move the drive pulley; if the noise persists you may need to replace the pivot shaft and/or crank shaft assembly. Refer to Section III for directions.

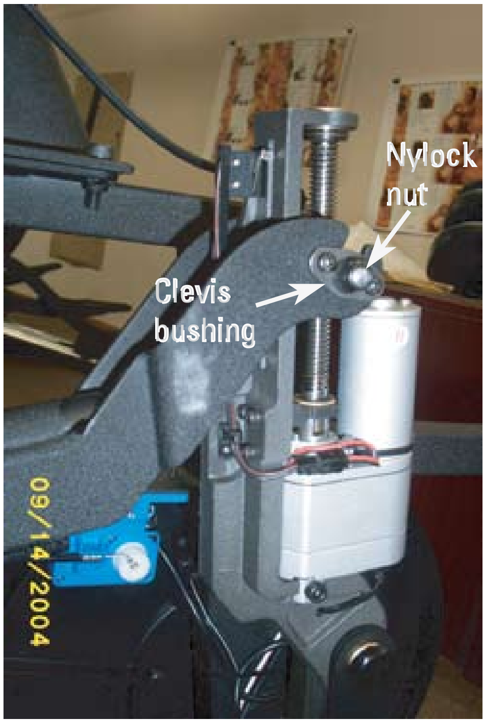


Figure 2.38

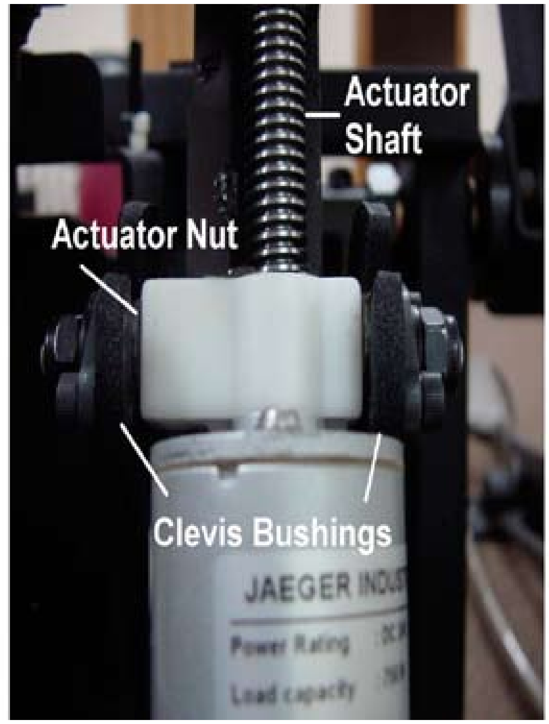


Figure 2.39

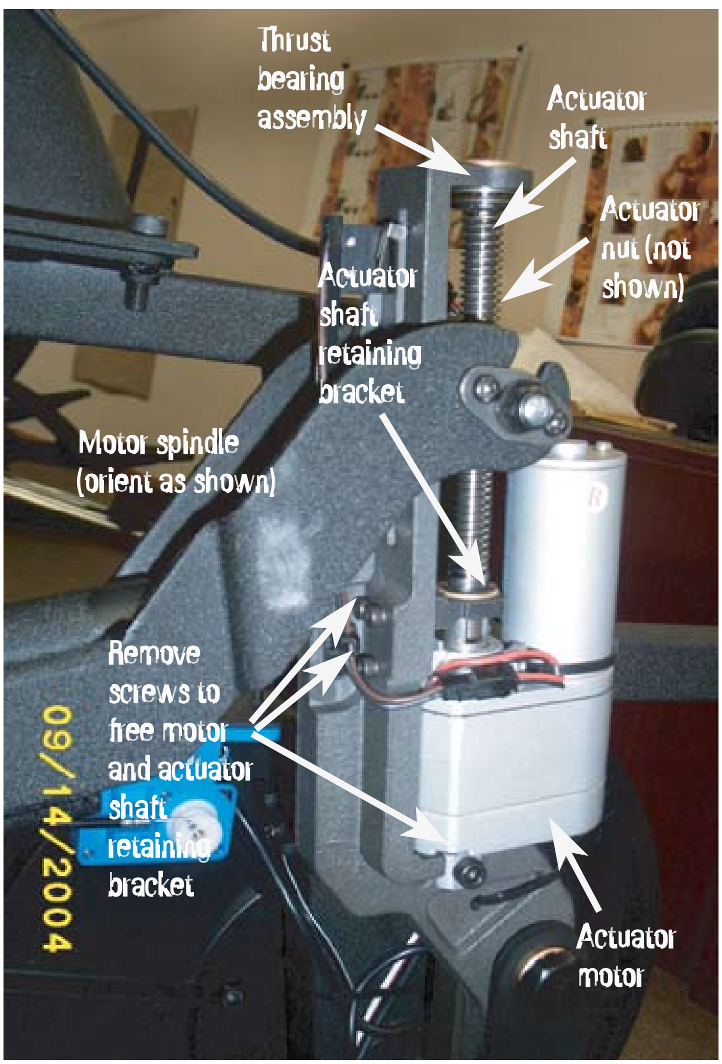


Figure 2.40

Q45 2.4

Issue	Possible Cause	What to Do
Motor sounds like it is laboring, running very hard or very slow.	Inadequate or faulty power supply.	❑ Replace power supply with a new 6.25 amp power supply and test.
	Tension or stress on the actuator shaft or actuator nut.	❑ The white plastic actuator nut is held in place at the pedal arm by the clevis bushing (Figures 2.38 and 2.39). ❑ Unplug the unit and remove the nylock nut securing the clevis bushing. ❑ Use while lithium grease to lubricate the actuator nut posts where the clevis bushing slides.. ❑ Move the clevis bushing to ensure that it slides freely. ❑ Replace and tighten the nylock nut.
	Actuator shaft threads are not properly lubricated.	❑ Apply white lithium grease to the threaded actuator shaft (Figure 2.39), including the top, middle, and just below the retaining bracket.
	Broken actuator shaft retaining bracket.	❑ Inspect the black retaining bracket to see if it is cracked or broken (Figure 2.40). If it is, replace it according to the directions in Section III.
	Faulty stride motor.	❑ If a motor is unresponsive or continues to labor, you will need to replace the adjustable link assembly according to the directions in Section III.

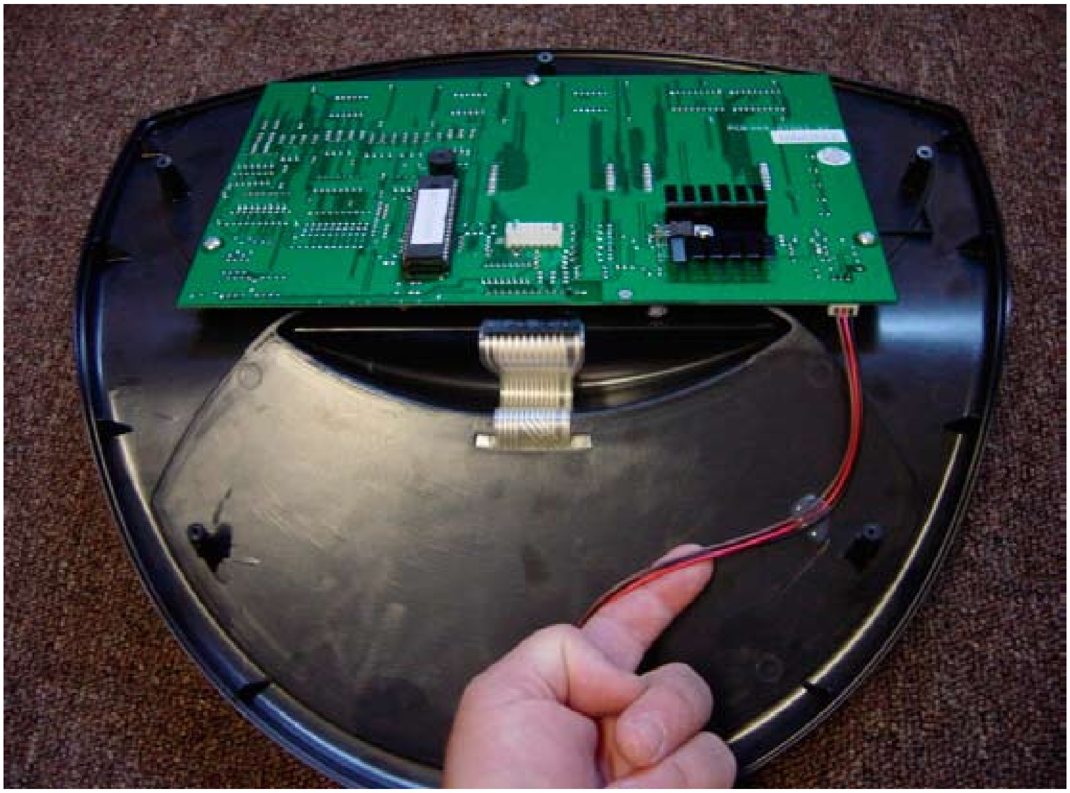


Figure 2.41

2.5 Heart Rate Monitoring Issues (Q45e/Q45ce)

Issue	Possible Cause	What to Do
Erratic or illogical heart rate reading from the chest strap (too high or too low).	Improper use of optional chest strap.	❑ The chest strap must be worn snugly against bare skin at the bottom of the pectoral muscles with the Octane Fitness logo right side up and facing away from the body. For best contact, the transmitter should be moistened. ❑ The chest strap may need to be moved to the right or left, up or down on the chest to secure a reading. ❑ Try the chest strap on a different user. Some individuals are unable to use a chest strap due to different body composition/ chemistry. ❑ If the user tries these adjustments and no heart rate reading appears, replace the chest strap battery (CR 2032 3V). ❑ If the user tries these adjustments and no heart rate reading appears, you will need to provide a new chest strap.
	Interference with other machines or devices.	❑ Fluorescent lights and electronic devices such as televisions, personal stereos, cordless or wireless telephones, stop-watches, wireless computers/Internet, PDAs, or other exercise machines may interfere with the heart rate transmission. Turn off other devices to isolate and eliminate the interference.
Erratic or illogical heart rate reading from the handgrips (too high or too low) (Q45ce only).	Faulty handgrips.	❑ The digital contact heart rate sensors on the stationary handlebars of the Q45ce must be grasped so that the contact sensor portion of the grip rests in the palm of the hand. The grips must be grasped firmly and the hands kept steady and in place. ❑ Remove the four (4) screws securing the console to the console upright tube. ❑ The heart rate sensor cable is a single wire which runs from the right side of the console to the center (Figure 2.41). Remove it from the glue holding it to the console, unplug it from the console, and replace it with a new one according to the directions in Section III. ❑ Check the console ground connection by loosening and re-tightening it. You may need to scrape off a bit of paint to ensure good ground connection. ❑ If the issue is still present, replace the handgrips according to the directions in Section III.

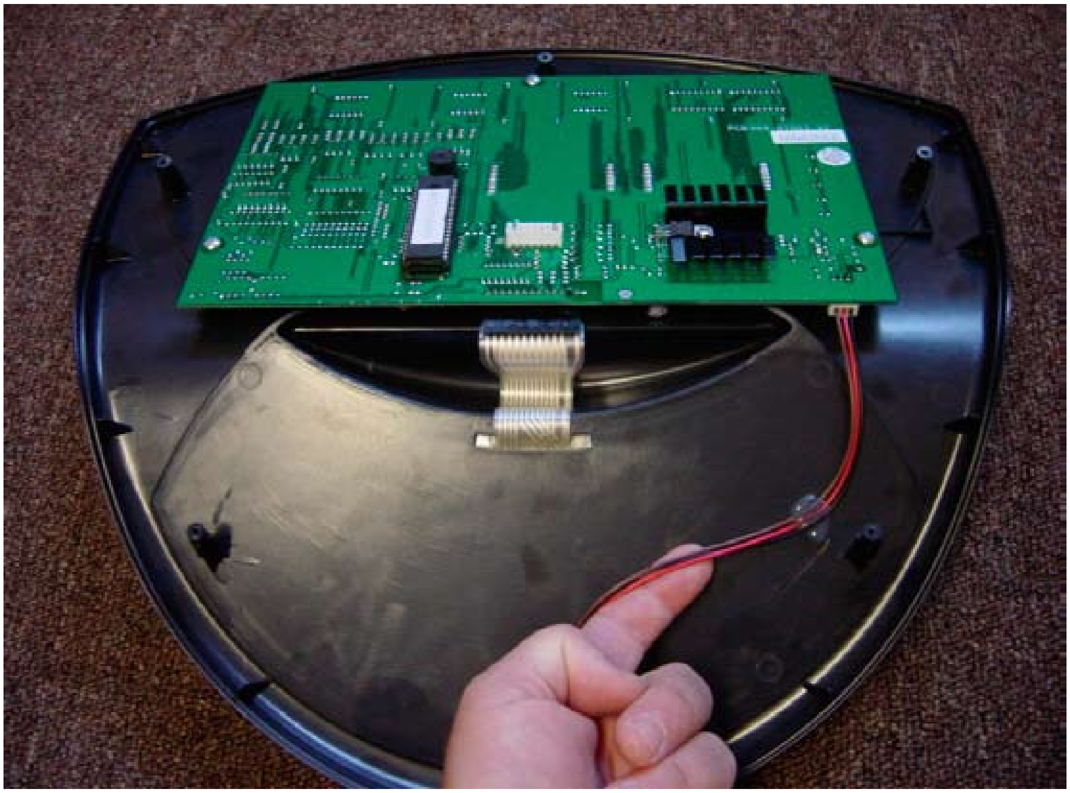


Figure 2.42

Issue	Possible Cause	What to Do
Erratic or illogical heart rate reading , or “NO HR” message from both the chest strap and the handgrips(Q45ce only) .	Faulty heart rate sensor cable in the console, or faulty console.	❑ Remove the four (4) screws securing the console to the console upright tube. ❑ The heart rate sensor cable is a single wire which runs from the right side of the console to the center (Figure 2.42). Remove it from the glue holding it to the console, unplug it from the console, and replace it with a new one according to the directions in Section III. ❑ If heart rate issues still exist, unplug the cable and plug it into a new console, listening for the click to ensure a good connection. Plug in the unit and check. If this resolves the issue, replace the old console with the new one according to the directions in Section III.

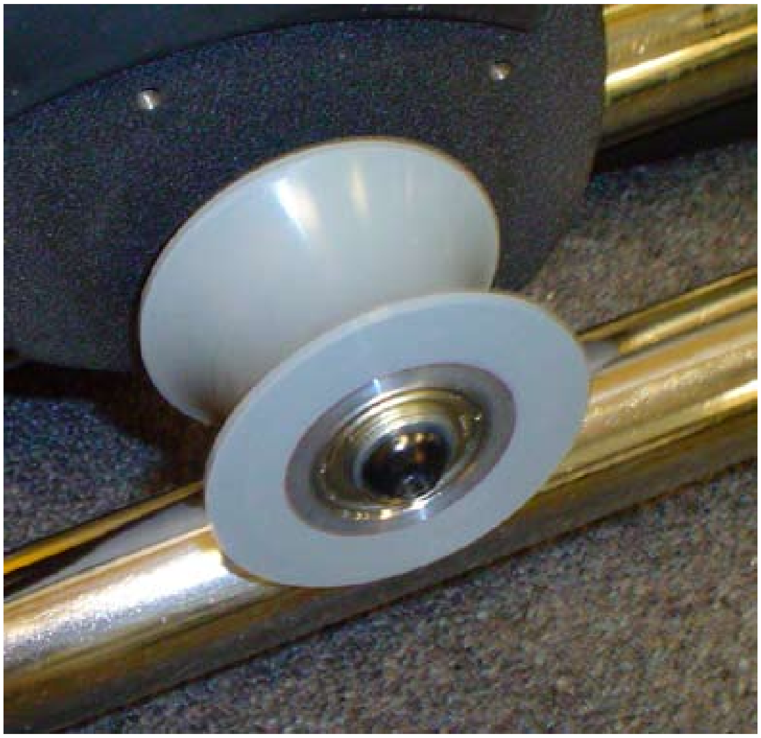


Figure 3.1

SECTION III: Part Replacement/Adjustment Procedures

3.1 Roller Wheel Replacement

1. Verify that you have the correct wheels available. The wheels for the Q45/Q45e/Q45ce are grey (Figure 3.1). Follow these instructions for both the left and right wheels.

2. Remove two (2) Phillips screws and remove the plastic wheel cover.

3. Use a 6mm hex key to remove the button-head cap screw and the washer that holds the wheel on the axle. This screw may be very tight; use a pipe or a long breaker bar and a hex driver socket if you need additional leverage.

4. Remove the wheel assembly. If the wheel is stuck, you may need to pry it off using a large-blade flat screwdriver or a small pry bar.

5. Install the new wheel on the axle. If necessary, tap the wheel *lightly* with a rubber or hard plastic mallet to ensure that it is seated properly. Be careful not to damage the bearings.

6. Install the washer and button-head cap screw and tighten with the 6mm hex key.

7. Replace the plastic wheel cover and secure it with the two Phillips screws.

8. Wipe down the chrome rails with a dry rag. You may apply a thin coat of white lithium grease to all four rails. ***Do not use WD-40® or a silicone spray.*** With a clean rag or paper towel, work the grease down the rails, covering the rails with a small amount of lubricant. Remove excess grease with a dry rag; only a very thin film should remain. Refer to the Grease Application Service Bulletin in the General Service Information Manual.

9. Pedal the unit for several minutes to test, then once again wipe the rails with a clean dry rag to remove excess grease.

Notes

3.2 Pedal Arms Replacement

1. Unplug the unit, then loosen and move the top shroud so that you can see where the pedal arm is attached to the top of the adjustable link assembly. Follow the directions below for both pedal arms (left and right).

2 Use a 4mm hex wrench to remove the two (2) hex-head screws from the actuator nut bushings on each side of pedal arm.

3. Using a 13mm wrench, loosen the two (2) actuator nylock nuts that hold the pedal arm in place, remove the two bushings, and push the pedal arm down the rails so it is out of the way. (Figure 3.2).

4. Remove the old pedal arm and slide the new one into position.

5. Pedal arms are side-specific. Make sure that the stepped portion of the clevis (Figure 3.3) is oriented toward the outside of the unit.

6. Install nylock nuts and Phillips screws and tighten.

7. Move the pedal arms forward and backward a few times; they should feel tight with no side-to-side motion.

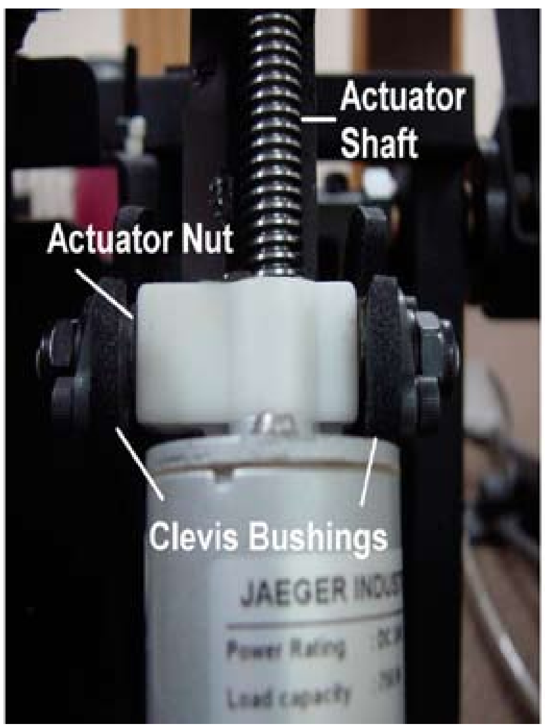


Figure 3.2

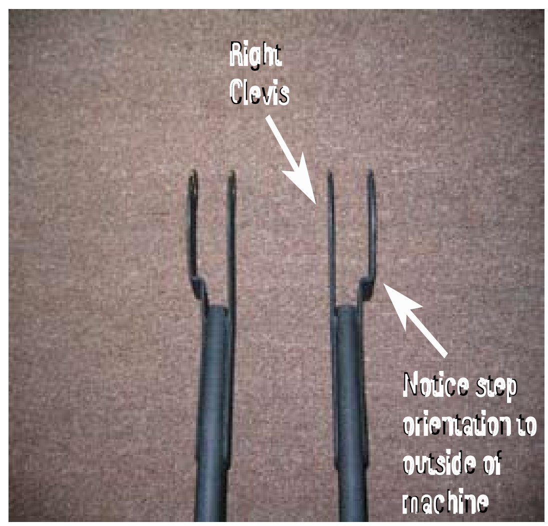


Figure 3.3

NOTES

3.3 Rails Replacement

1. Unplug the unit to avoid cord damage and remove the top, left, and right shrouds, following the directions in the General Service Information Manual.

2. Remove the pedal arms.

3. Loosen and lift the back shroud until it clears the lower frame, and lay the back shroud on the pedals.

4 Use an 8mm hex wrench to remove the four (4) screws at the top of the rail assembly, two on each set of rails (Figure 3.4). These may be very tight; you may need to use an extender to loosen them.

5. Use a 5mm hex wrench to remove the six (6) bolts located near the rear support, three on each pair of rails (Figure 3.5).

6. Remove the old rails and position the new rails.

7. Reuse or replace the rubber gaskets that fit between the rails and rear support.

8. Insert and tighten the rear bolts using the 5mm hex wrench.

9. Insert and tighten the screws at the front of the rail assembly using the 8mm hex wrench.

10. Wipe down the chrome rails with a dry rag. You may apply a thin coat of white lithium grease to all four rails. ***Do not use WD-40® or a silicone spray.*** With a clean rag or paper towel, work the grease down the rails, covering the rails with a small amount of lubricant. Remove excess grease with a dry rag; only a very thin film should remain.

11. Replace the pedal arms.

12. Pedal the unit for several minutes to test, then once again wipe the rails with a clean dry rag to remove excess grease.

13. Reposition the back shroud; check to make sure the inlet plug did not unplug from the cable assembly or get pinched. Secure the back shroud with its four screws. Replace the right, left, and top shrouds and secure.

Figure 3.4

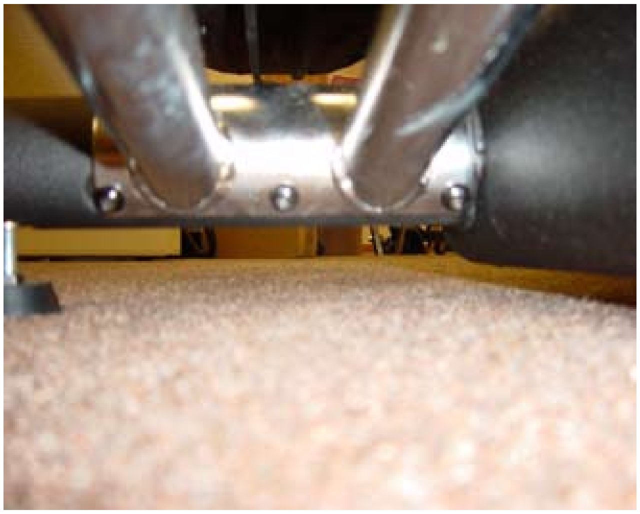


Figure 3.5

Figure 3.6

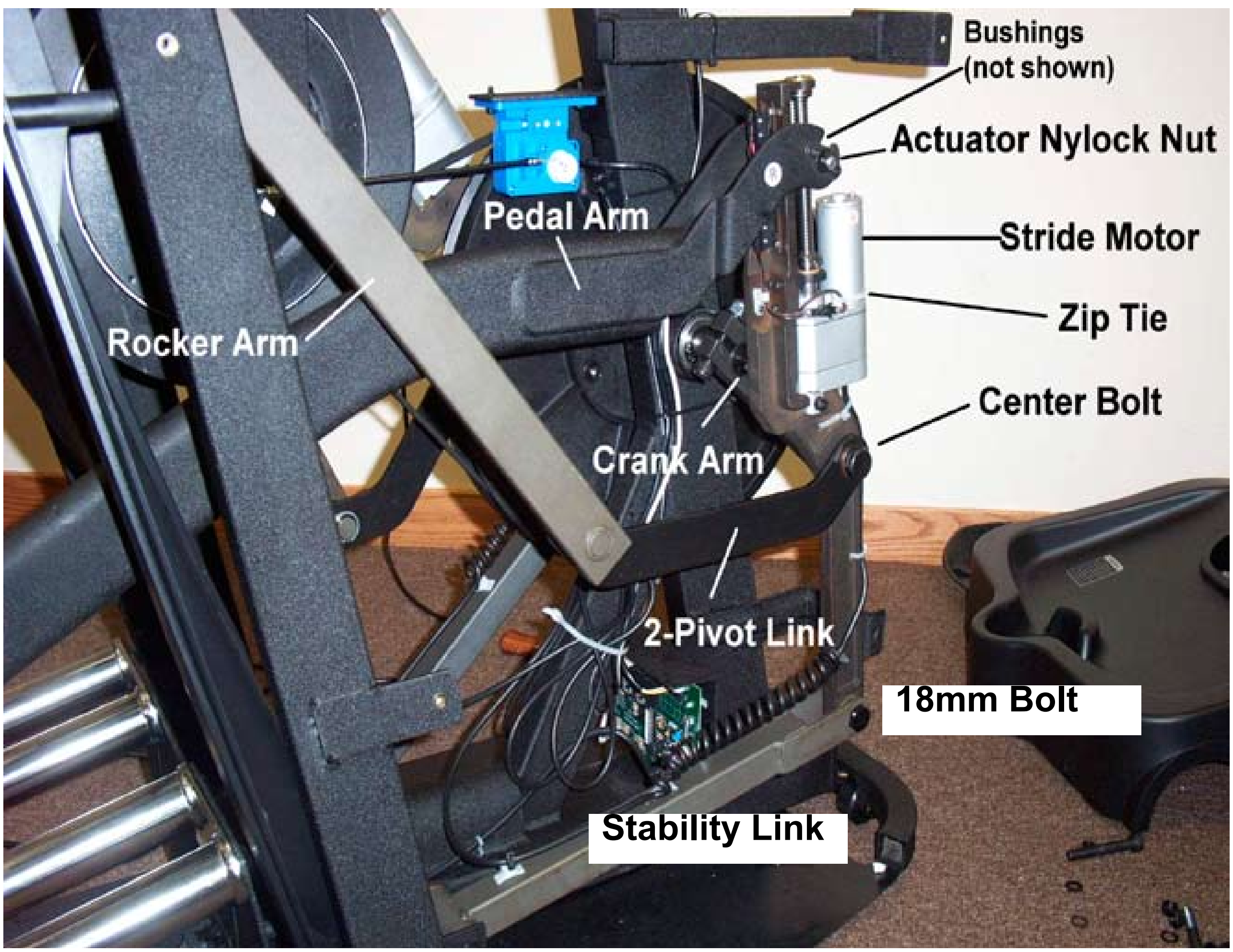


Figure 3.7

3.4 Adjustable Link Assembly Replacement

1. Unplug the unit, loosen the top shroud and remove the left shroud. If you are replacing the right stride motor, also remove the right shroud.
2. Unplug the motor from the controller board. The Left motor is the black plug, the Right motor is the white plug (Figure 3.6).
3. Use a 4mm hex wrench to remove the two (2) hex-head screws from the actuator nut bushings on each side of pedal arm.
4. Using a 13mm wrench, loosen the two (2) actuator nylock nuts that hold the pedal arm in place, remove the two bushings, and push the pedal arm down the rails so it is out of the way. (Figure 3.7).
5. Using a 19mm wrench, loosen and remove the nylock nut securing the large center bolt connecting the 2-pivot link and the crank arm. To avoid injury, hold the rocker arm with one hand, then remove the center bolt, and lay the stride motor down on the ground.
6. Using an 18mm wrench, loosen the bolt connecting the stability link to the stride motor assembly and remove the stride motor from the stability link.
7. Cut the zip ties and remove the old stride motor.
8. Position the new stride motor and secure with zip ties.
9. Reattach the stride motor to the stability link using an 18mm wrench.
10. Lift the stride motor on the stability link up into position, reinsert the center bolt into the 2-pivot link and crank arm, and use a 19mm wrench to secure it with the nylock nut.
11. Push the pedal arm up the rails into position, replace the two bushings, and use a 13mm wrench to retighten the two (2) actuator nylock nuts.
12. Replace and tighten the two (2) Phillips screws that secure the actuator nut bushings on each side of the pedal arm.
13. Plug the stride motor into its proper plug on the controller board (Left is black, Right is white), turn on the unit, and test for proper functioning.
14. Zip-tie the wires down so that they don't get tangled.

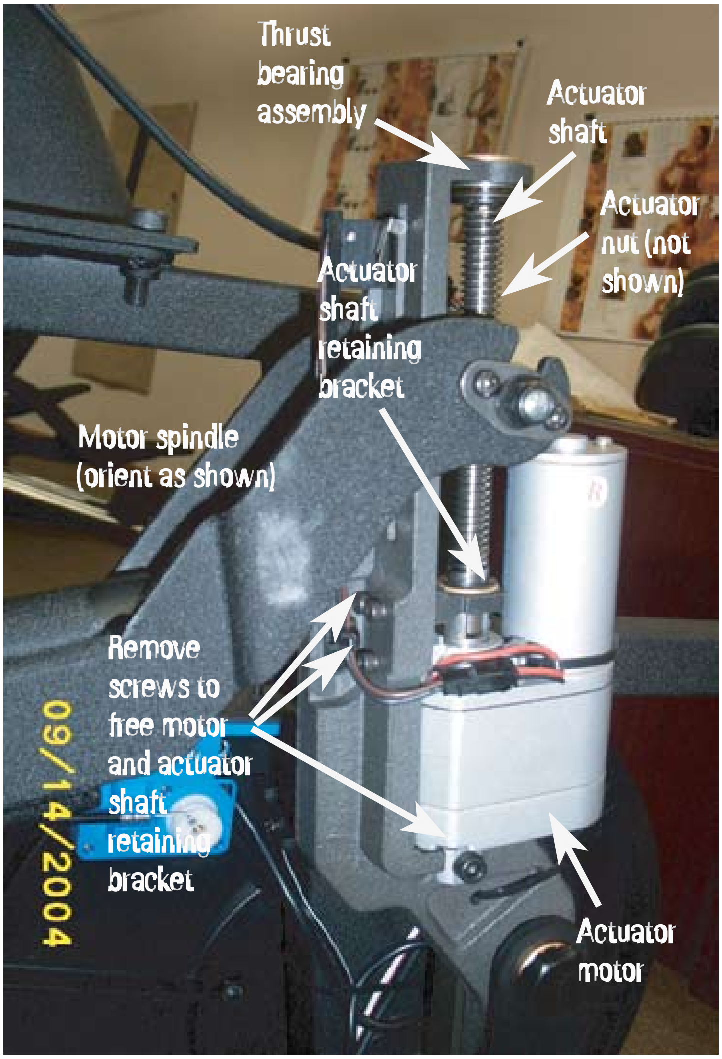


Figure 3.8

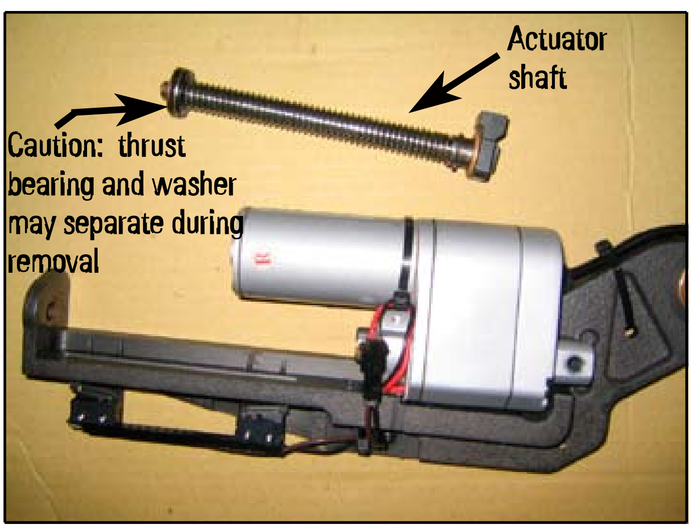


Figure 3.9

3.5 Actuator Nut Replacement

Note: Left and Right actuator nuts are different; make sure you have the correct part before beginning installation.

1. Unplug the unit and remove the shrouds to access the inside. Follow the directions below for each side of the machine (left and right adjustable link assemblies).
2. Remove the two (2) nylock nuts and two (2) Phillips screws that attach the pedal arm to the adjustable link assembly.
3. Use a 4mm hex wrench to remove the two (2) hex-head screws from the actuator nut bushings on each side of pedal arm (Figure 3.8).
4. Remove the two (2) hex-head screws holding the motor to the pivot link.
5. Pull the actuator motor away from the actuator shaft.
6. Slide the shaft down and away from the 3-pivot link, and remove the actuator shaft bracket. Use caution as the thrust bearing and washer may separate as you pull the shaft out of the upper bushing (Figure 3.9).
7. Thread the old actuator nut off the bottom the threaded actuator shaft.
8. Thread the new actuator nut onto the shaft.
9. Slide the shaft up and into the 3-pivot link and push the actuator shaft toward the actuator motor.
10. Replace and tighten the 2 (2) hex-head screws holding the motor to the pivot link.
11. Replace and tighten the two (2) hex-head screws holding the retainer bracket to the pivot link.
12. Inspect the crank arm alignment to verify that it is flush with the crank shaft.
13. Replace and tighten the two (2) nylock nuts and two (2) Phillips screws that attach the pedal arm to the adjustable link assembly.
14. Plug in the unit and test.

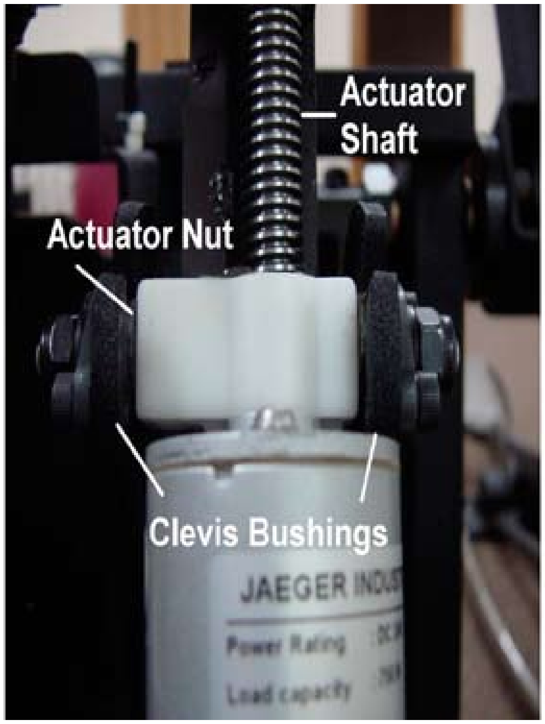


Figure 3.10

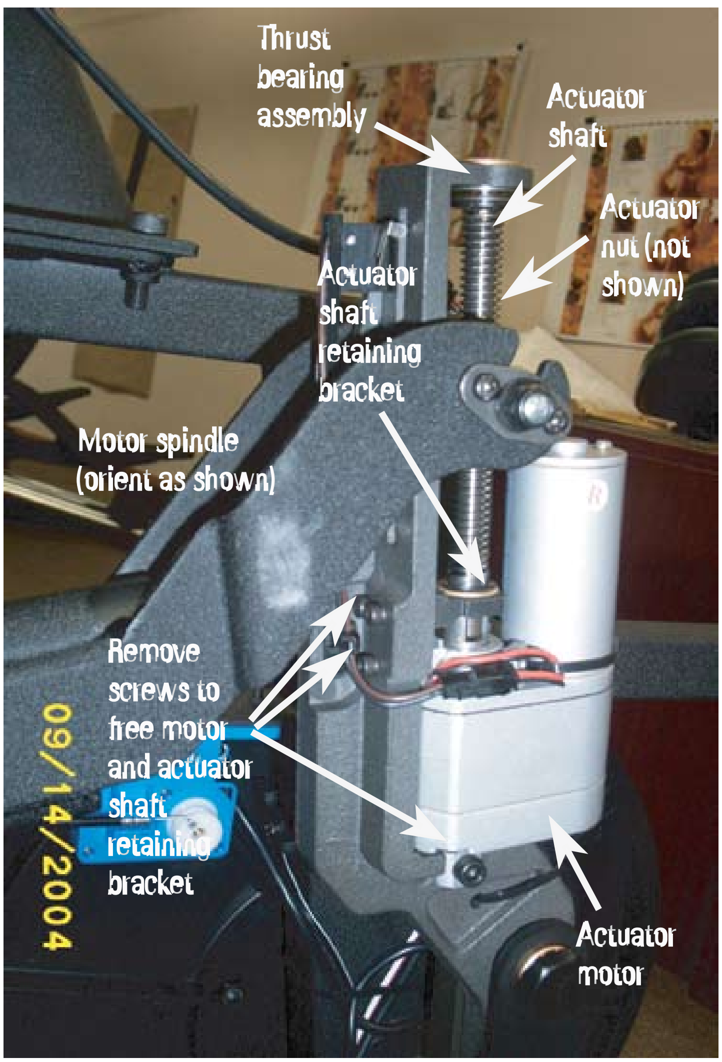


Figure 3.11

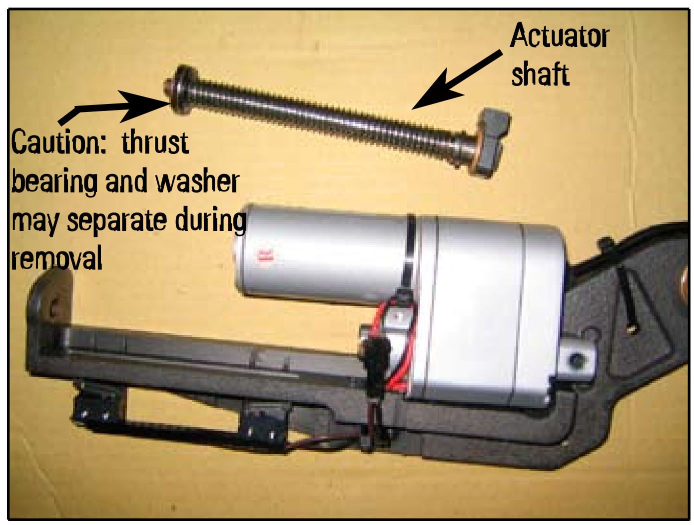


Figure 3.12

3.6 Actuator Shaft Retaining Bracket Replacement

1. Use the console keypad to extend the stride length to 23, the top of the actuator shaft.
2. Unplug the unit and remove the shrouds to access the inside.
3. Remove the two (2) hex-head screws holding the retainer bracket to the pivot link (Figure 3.11).
4. Remove the two (2) hex-head screws holding the motor to the pivot link.
5. Pull the actuator motor away from the actuator shaft.
6. Slide the shaft down and away from the 3-pivot link, and remove the actuator shaft retaining bracket. Use caution as the thrust bearing and washer may separate as you pull the shaft out of the upper bushing (Figure 3.12).
7. Install the new bracket onto the shaft.
8. Slide the shaft up and into the 3-pivot link and push the actuator shaft toward the actuator motor.
9. Replace and tighten the two (2) hex-head screws holding the motor to the pivot link.

10. Replace and tighten the two (2) hex-head screws holding the retainer bracket to the pivot link.

10. Plug in the unit and test.

NOTES

3.7 Belt Tensioner Replacement

1. Unplug the unit and remove the shrouds to access the inside. Figure 3.13 shows the belt tensioner assembly.
2. Use a 13mm wrench to remove the double nut and the adjuster rod.
3. Remove the nylock nut that holds the belt tensioner to the frame.
4. Remove the belt tensioner and replace it with a new one.
5. Tighten the nylock nut that holds the belt tensioner to the frame.
6. Tighten the double nut on the adjuster rod.
7. Twist the drive belt with your fingers. It should move approximately 90º. Adjust as necessary so that slippage does not occur between the belt and the pulley while pedaling the unit and when changing direction while pedaling.

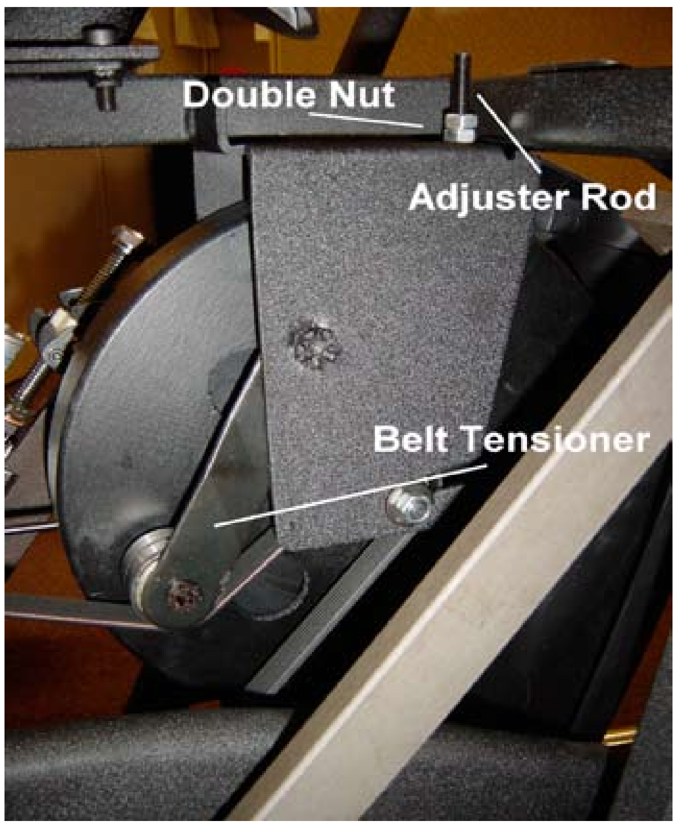


Figure 3.13

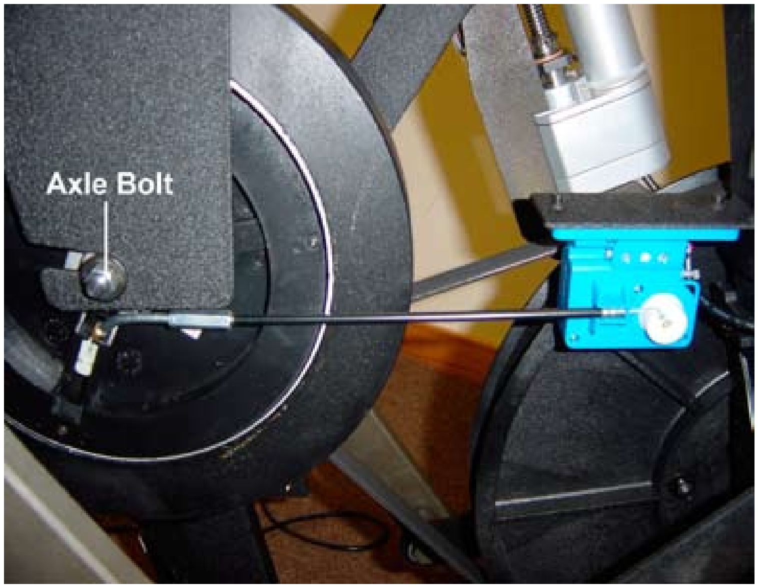


Figure 3.14


Figure 3.15

3.8 Brake Assembly/Pulley Replacement

1. Unplug the unit and remove the shrouds to access the inside.
2. Loosen the belt tensioner bolt enough to allow you to remove the belt.
3. Loosen the axle bolts that hold the brake flywheel in place (Figure 3.14).
4. Remove the brake cable from the plastic sliding brake adjuster on the brake (Figure 3.15).
5. Lift the brake and push it back toward the foot pedals and remove it from the unit.
6. Slide the new brake into its slot and push it toward the front of the machine.
7. Tighten the axle bolts to hold the brake flywheel in place.
8. Replace the brake cable into the sliding piece on the brake.
9. Put the belt drive on the new brake and re-tighten the belt tensioner bolt.
10. Twist the drive belt with your fingers. It should move approximately 90º. Adjust as necessary so that slippage does not occur between the belt and the pulley while pedaling the unit and when changing direction while pedaling.
11. Plug in the unit and test.

Figure 3.16

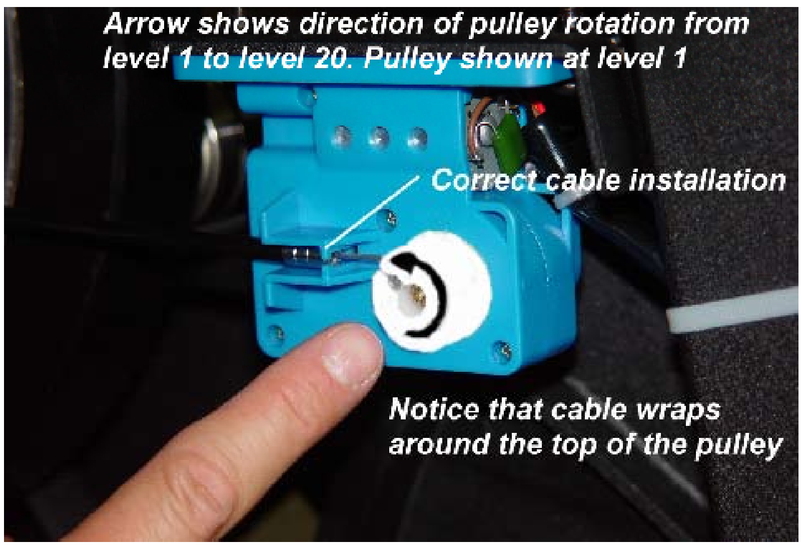


Figure 3.17

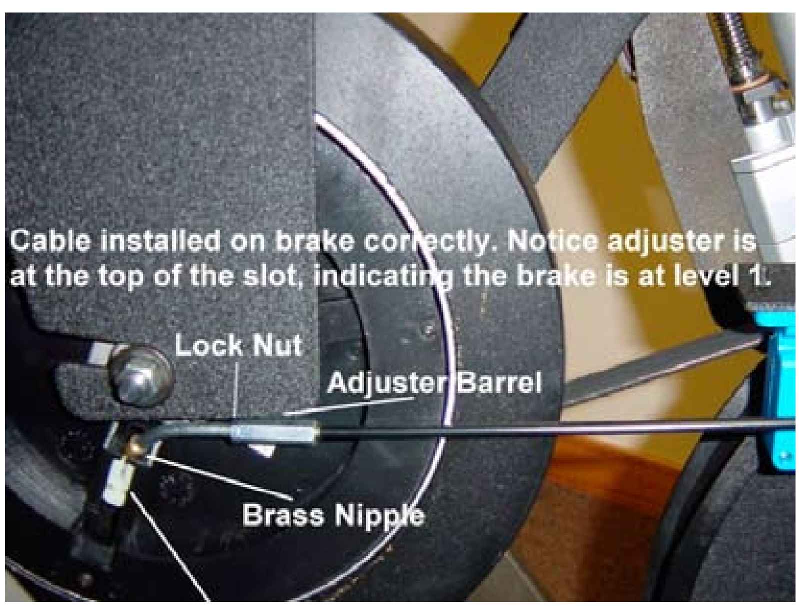


Figure 3.18

3.9 Servomotor Replacement

1. Unplug the unit and remove the shrouds to access the inside. Unplug the servomotor from the cable assembly.

2. Unscrew the servomotor and bracket from the unit base using a Phillips screwdriver (Figure 3.16).

3. ***Notice the way that the brake cable wraps around the motor tensioning pulley, as shown in Figure 3.17.***

4. Insert the brake cable end into the motor tensioning pulley of the new servomotor, making sure that it wraps correctly around the top of the pulley from the left (Figure 3.17).

5. Plug the servomotor into the cable assembly and power on the unit.

6. Press the Level + button to move the resistance through levels 1 to 20, and then push Level - to move the resistance back down through all levels. Verify that the pulley moves through the levels and that it is in the proper position at level 1, with the notch on the pulley oriented to “10 o’clock”. (Figure 3.17). (If it is not, contact Octane Fitness Customer service for further assistance in making the proper adjustment.)

7. Verify that the brake cable slider is positioned at the top of its slot (toward the center of the flywheel) when the unit is at resistance level 1 (Figure 3.18. See Brake Cable Adjustment in this section for more information.

8. Re-attach the servomotor and bracket to the unit base using a Phillips screwdriver, and zip-tie the cable to the frame.

NOTES

3.10 Brake Cable Adjustment

1. Using the Level - button, make sure the resistance is set to level 1 (the lowest level).
2. Unplug the unit and remove the shrouds to access the inside.
3. Check that the brass nipple at the end of the brake cable rests in the slot of the tension slide housing.
4. The brake adjuster must be at the top of its slot (toward the center of the flywheel) at resistance level 1, as shown in Figure 3.19. If it is not at the top of the slot, free up the cable-adjusting sleeve by backing off (loosening) the lock nut.
5. Rotate the adjuster barrel to make sure the brass nipple and the brake adjuster are touching.
6. Turn the adjuster barrel so that the brake adjuster is all the way at the top of the tension slide housing.
7. Retighten the lock nut to hold the adjuster barrel in place.
8. Plug in the unit and use the Level +/- buttons to test resistance changes, making sure the brake adjuster returns to the top of the slot when the machine is at level 1.

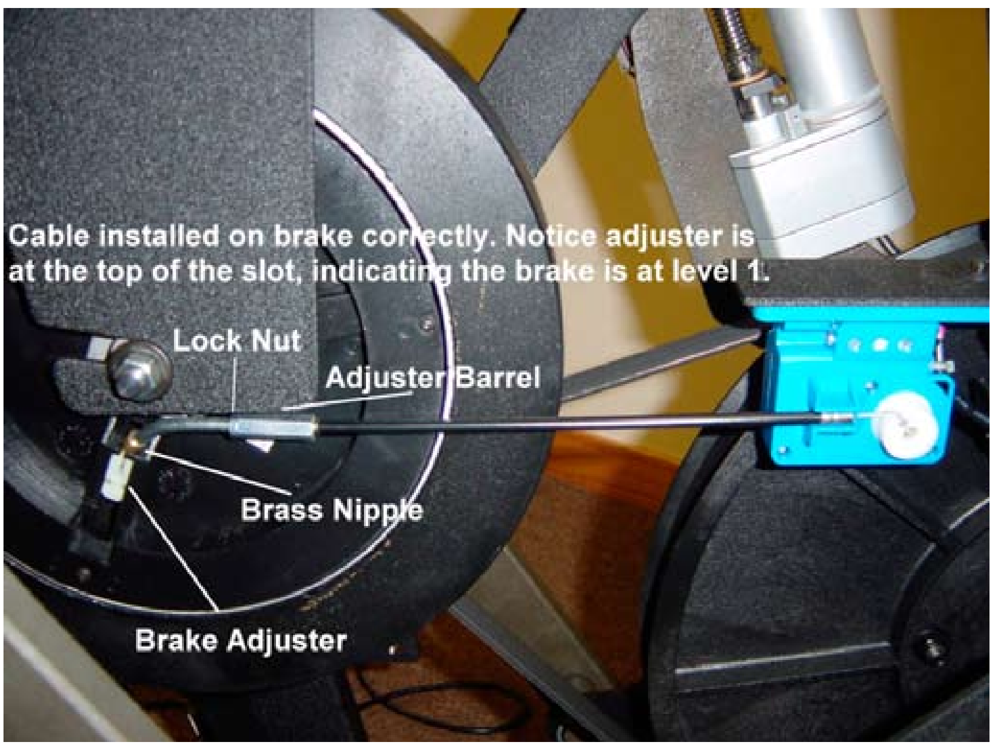
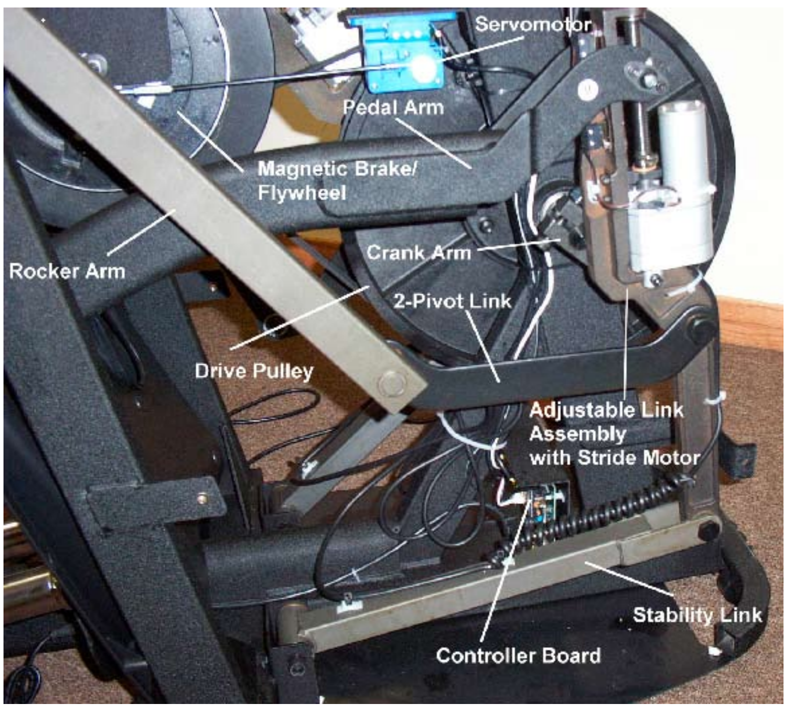


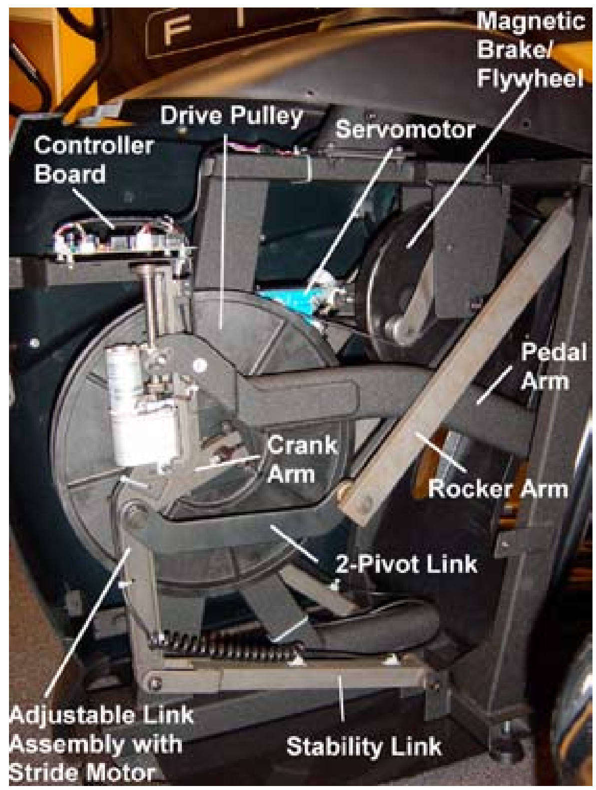
Figure 3.19


Figure 3.20


Figure 3.21



Older units



Newer units

Figure 3.22

3.11 Upper and Lower Wire Harnesses Replacement

1. Unplug the unit and remove all shrouds.
2. Remove the four (4) Phillips screws securing the console to the mast assembly.
3. Unplug the connector from the back of the console.
4. Pull the upper wire harness down through the mast assembly and unplug it from the top of the frame (Figure 3.20).
5. Plug the new upper wire harness into the top of the frame and into the console, listening for the click to ensure a good connection.
6. Power on the machine and verify that the console is working.
7. Unplug the connector from the back of the console.
8. Drop a string or a wire down through the mast assembly, tie it to the cable assembly, and thread the harness up through the mast (Figure 3.21).
9. Plug the new upper wire harness into the console, listening for the click to ensure a good connection.
10. Secure the console to the upright mast with the four Phillips screws.
11. If required, plug a new lower wire harness at the top of the frame (where it connects with the upper harness), allowing the old lower wire harness to dangle (unplugged).
12. Follow the old lower wire harness down the frame (Figure 3.22), unplugging the old wire harness and plugging in the new one at three connection points: controller board, servomotor, and speed sensor (not shown).
13. Once the new wire harness is connected, cut the zip ties and remove the old wire harness.
14. Plug in the unit and test.
15. Use zip ties to secure the wiring new harness to the frame.
16. Replace all shrouds and secure with shroud screws.

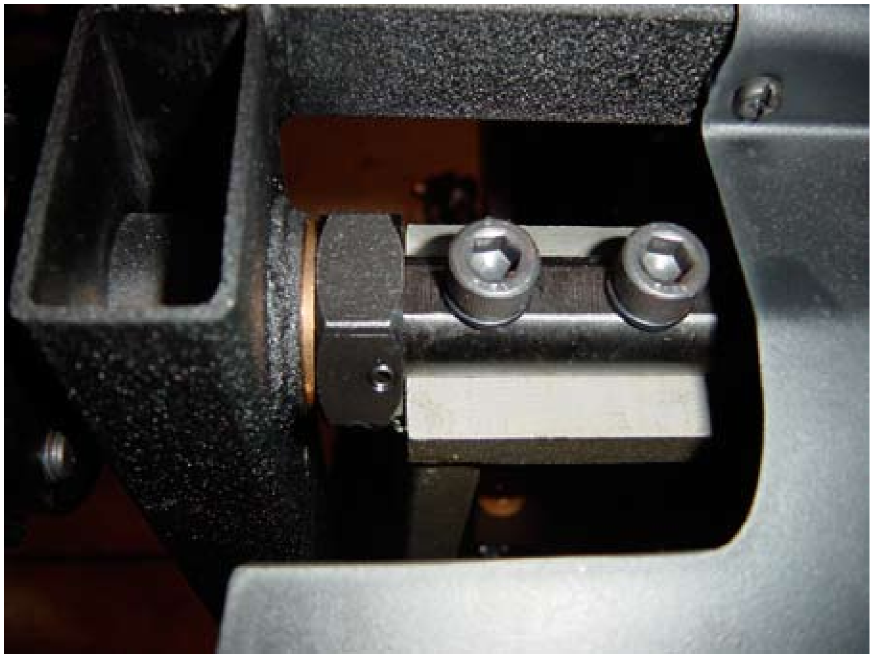


Figure 3.23

Figure 3.24

3.12 Pivot Shaft Replacement

1. Unplug the unit and remove the shrouds to access the inside. Follow the directions below for each side of the machine (left and right pivot shafts).
2. Remove the two (2) bolts and washers that attach the rocker arm to the pivot shaft (Figure 3.23).
3. Loosen the two (2) set screws in the hex collar on the pivot shaft and remove the threaded hex collar and washer.
4. Slide the shaft out. The collar fits tightly; you may need to be tap the shaft gently to remove it.
5. Remove the washer from the old shaft and install it on the new shaft. Slide the new shaft into the frame. If you are replacing an old style (non-threaded, non-hex collar) shaft, ***do not*** install the second washer.
6. Install the hex collar by hand as shown in Figure 3.24 with the set screws closer to the holes in the shaft. (The white dot in Figure 3.24 is for illustration only and does not appear on the actual hex collar.)
7. Position the hex collar up against the bronze bushing. Make sure you can spin the shaft by hand. (A little resistance is fine.)
8. Re-install the moving handlebars and move them side to side to determine the appropriate tightness for the pivot shaft. The handlebars should move freely but without lateral movement or wobble.
9. Apply Blue Loctite© and tighten the two (2) set screws in hex collar to lock it into place.
10. Use the two (2) bolts and washers to attach the rocker arm to the pivot shaft.
11. Replace the shrouds and shroud screws.

Figure 3.25

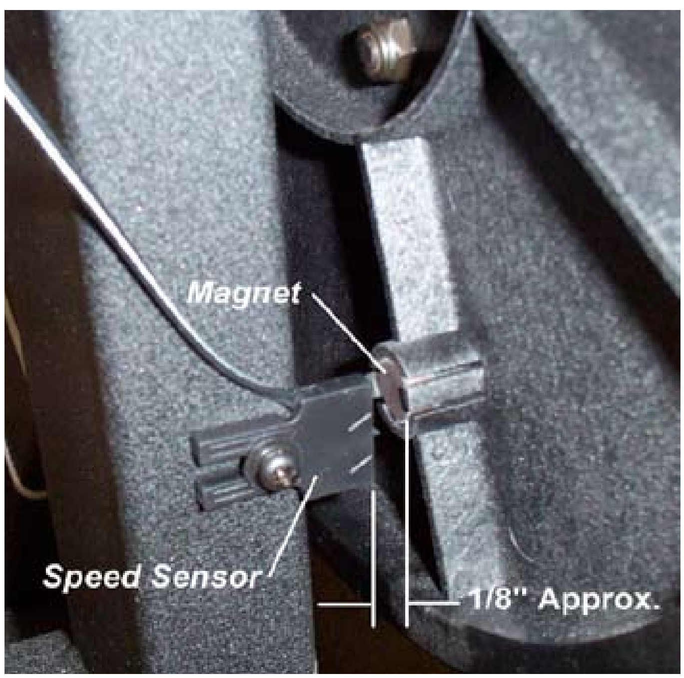


Figure 3.26

3.14 Speed Sensor Replacement

1. Unplug the unit and remove the shrouds to access the inside.
2. Unplug the original sensor from the main wire harness.
3. Unscrew the original sensor from the frame.
4. Attach the new sensor to the frame with the screw; level and align the sensor with the pulley magnet. Leave a gap of approximately 1/8-inch between the sensor and the magnet, taking care that no physical contact occurs (Figures 3.25 and 3.26). Tighten screw to secure position.
5. Ensure that cables are not dangling loose into the linkage system.
6. Plug the new sensor into the wiring harness and power on the unit to test.

NOTES

3.14 Heart Rate Sensor/Cable Replacement (Q45e/Q45ce)

1. Unplug the unit.

2 Remove the four (4) Phillips screws securing the console to the upright tube.

3. Unplug the cable assembly connector from the back of the console.

4. Remove the six (6) Phillips screws holding the two pieces of the console casing together and separate the console casing.

5. Unplug the heart rate sensor cable from the console circuit board and remove it from the glue that holds it to the console. (Figure 3.27).

6. Plug a new heart rate sensor/cable into the console circuit board.

7. Place the two pieces of the console casing together, holding the circuit board in place. Plug the console cable into the console, listening for the click to ensure a good connection.

8. Carefully flip over the console casing and power on the machine. Put on a heart rate strap and verify that a heart rate reading is displayed on the console.

9. Separate the console pieces again and glue the new heart rate sensor cable to the console, making sure the wires are properly positioned so they won't be pinched when the console pieces are pressed back together.

10. Place the console pieces together once more, making sure that the LEDs are aligned properly in the console windows, and secure the console casing with the six (6) Phillips screws,

11. Re-attach the console to the upright tube with the four (4) Phillips screws.

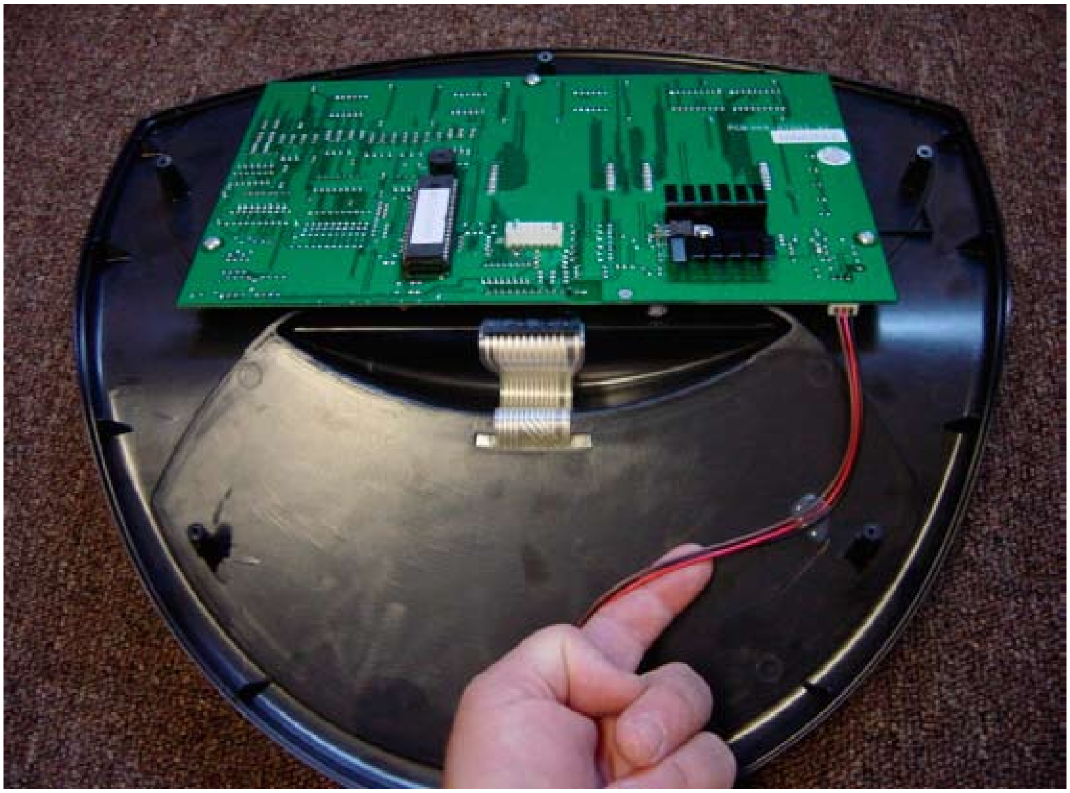


Figure 3.27

Figure 3.28

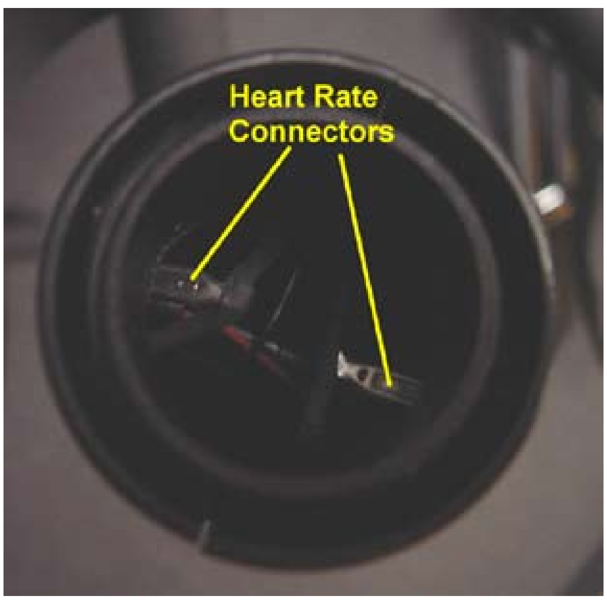


Figure 3.29

3.15 Heart Rate Contact Handgrip Replacement (Q45ce)

1. Use a screwdriver to remove the end caps from the top of the stationary handgrips on each side of the machine (Figure 3.28). Repeat the following steps for both the left and right handgrips.

2. Beginning at the top, carefully separate the two sides of the handgrip. You may need to use a flat screwdriver to lever the pieces apart.

3. Use tape to label the two heart rate connectors so that you know which one connects to each side of the handgrip (Figure 3.29).

4. Disconnect the two heart rate connectors and remove the old handgrips.

5. Position the new handgrip pieces and connect the two heart rate connectors to the appropriate connectors in the new handgrip.

6. Carefully snap the two sides of the handgrip together, avoiding pinching the wires

7. Replace the end cap.

NOTES

3.16 Console Replacement

1. Unplug the unit.

2 Remove the four (4) Phillips screws securing the console to the upright tube.

3. Unplug the connector from the back of the console and plug it into the new console, listening for the click to ensure a good connection (Figure 3.30).

4. Power on the unit to verify the new console is working properly.

5. Re-attach the new console to the upright tube with the four (4) Phillips screws.

Figure 3.30

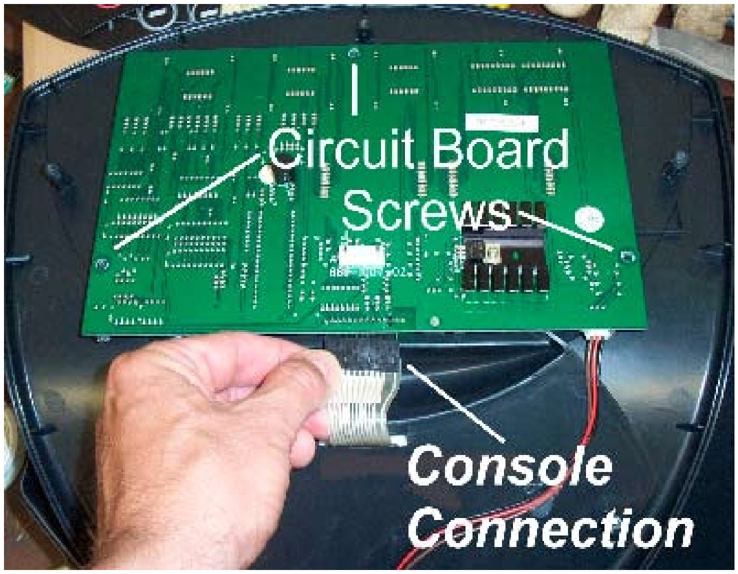


Figure 3.31


Figure 3.32


Figure 3.33

3.17 Console Overlay Replacement

1. Unplug the unit.
2. Remove the four (4) Phillips screws securing the console to the upright tube.
3. Unplug the cable assembly connector from the back of the console.
4. Remove the six (6) Phillips screws holding the two pieces of the console casing together and separate the console casing.
5. Unplug the main overlay ribbon cable from the console circuit board (Figure 3.31).
6. Carefully peel the old overlay from the console keypad and pull the cable out of its slot in the console (Figures 3.32 and 3.33).
7. Make sure the area is free of dirt or dust, then feed the new overlay cable through its slot, but ***do not attach it*** to the console circuit board.
8. Carefully align the overlay on the keyboard so that you can feel the buttons beneath it and press it into place.
9. Attach the overlay cable to the console circuit board.
10. Place the two pieces of the console casing together, holding the circuit board in place and making sure that the LEDs are aligned properly in the console windows.
11. Plug the console cable into the console, listening for the click to ensure a good connection.
12. Power on the unit and test to ensure proper functioning.
13. Secure the console casing with the six (6) Phillips screws,
14. Re-attach the console to the upright tube with the four (4) Phillips screws.

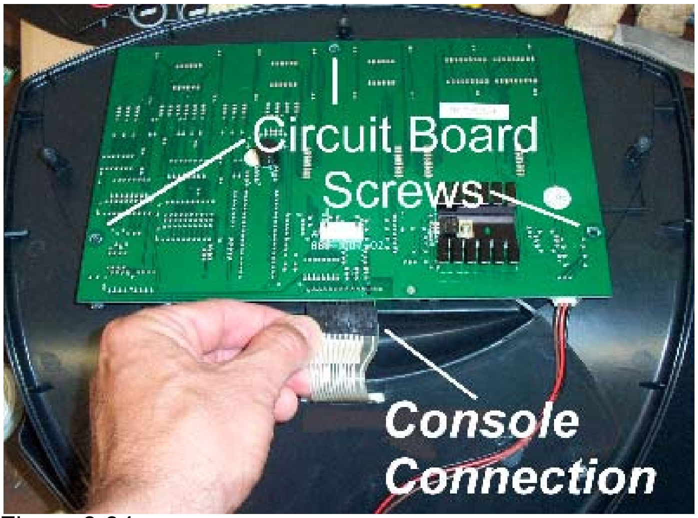


Figure 3.34

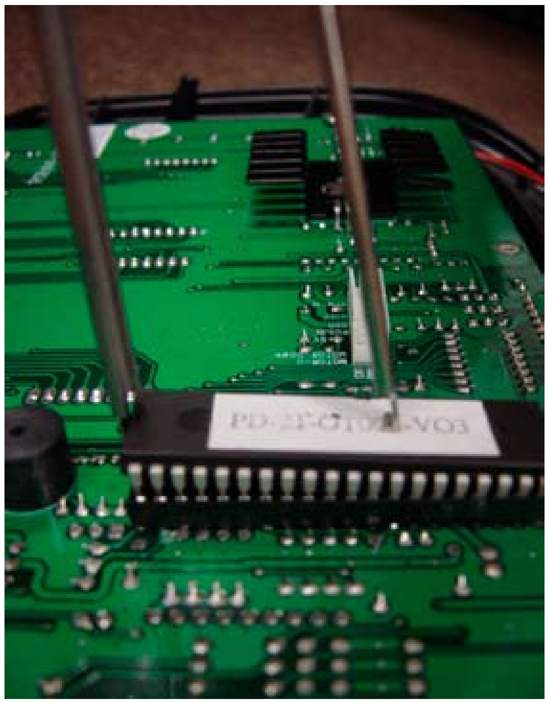


Figure 3.35

Figure 3.36

3.18 Console Software Micro-Controller Replacement

1. Unplug the unit.
2. Remove the four (4) Phillips screws securing the console to the upright tube.
3. Unplug the connector from the back of the console.
4. Remove the six (6) Phillips screws holding the two pieces of the console casing together and separate the console casing.
5. Ground yourself before touching the circuit board.
6. Unplug the console circuit board from the console overlay (Figure 3.34).
7. Remove the three (3) screws securing the console board to the console casing and flip the board over so that the LEDs are on top (facing you).
8. Using the chip puller supplied with the new software micro-controller, gently pull the old software micro-controller out of its slot on the console board (Figure 3.35).
9. Align the semi-circle mark on the new software micro-controller (Figure 3.36) with the semi-circle mark by the circuit board slot, and gently press the micro-controller prongs into the slot holes. Use caution, as the micro-controller fits snugly and the prongs bend easily.
10. Flip the console board back over, making sure that the LEDs are aligned properly in the console windows, and re-attach it to the console casing with the three (3) screws.
11. Re-connect the console board to the console overlay.
12. Fit the two console casings together and secure them with the six (6) screws.
13. Plug the console cable into the console, listening for the click to ensure a good connection.
14. Power on the unit to verify that console is working properly. If you need further assistance, contact Octane Fitness Customer Service.
15. Re-attach the console to the upright tube with the four (4) Phillips screws.

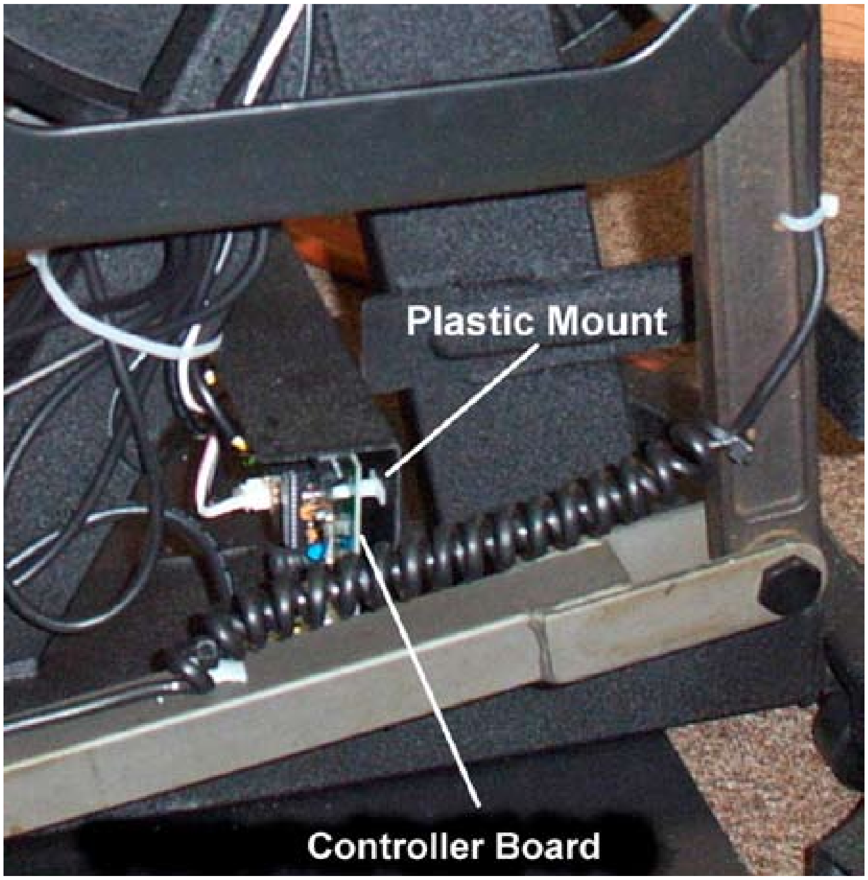


Figure 3.37

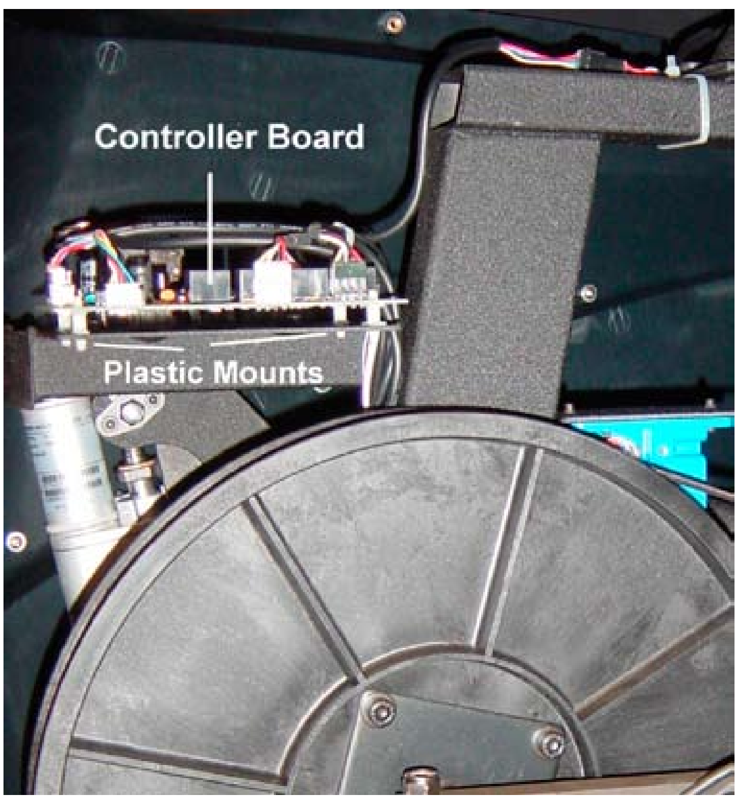


Figure 3.38

3.19 Controller Board Replacement

Follow these instructions for units with the controller board mounted below the main drive pulley.

1. Unplug the unit, loosen the top shroud and remove the left shroud.
2. Use masking tape to mark each wire so you will remember where it goes, then unplug all the wires from the controller board.
3. Using needle nose pliers, squeeze the four (4) plastic mounts and pop the board off of the frame Figure 3.37).
4. Install the new board on the plastic mount. Listen for the “snap” to verify that it is properly seated.
5. Plug all the wires into the correct spots on the new board and remove the tape markings.
6. Test for proper functioning.
7. Replace the left shroud and reposition the top shroud; secure with shroud screws.

Follow these instructions for units with the controller board mounted on top of the right shroud mounting tube.

1. Unplug the unit, loosen and rotate the top shroud.
2. Use masking tape to mark each wire so you will remember where it goes, then unplug all the wires from the controller board.
3. Using needle nose pliers, squeeze the four (4) plastic mounts and pop the board off of the frame (Figure 3.38).
4. Install the new board on the plastic mount. Listen for the “snap” to verify that it is properly seated.
5. Plug all the wires into the correct spots on the new board and remove the tape markings.
6. Test for proper functioning.
7. Reposition the top shroud; secure with shroud screws.

Figure 3.39

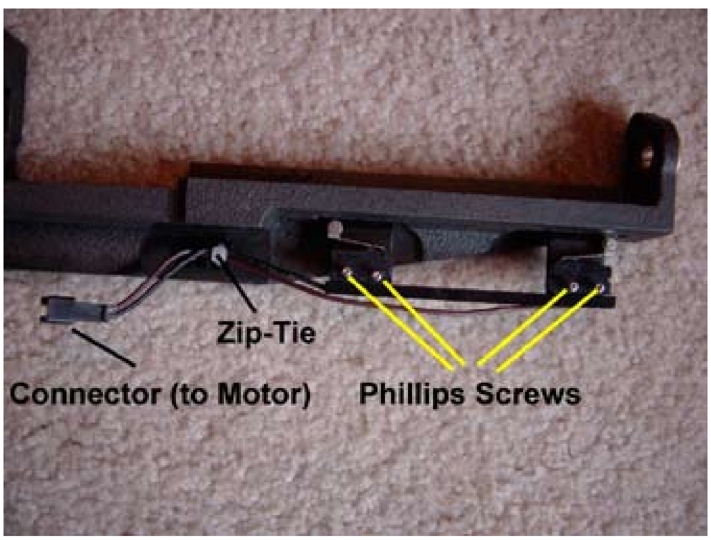


Figure 3.40

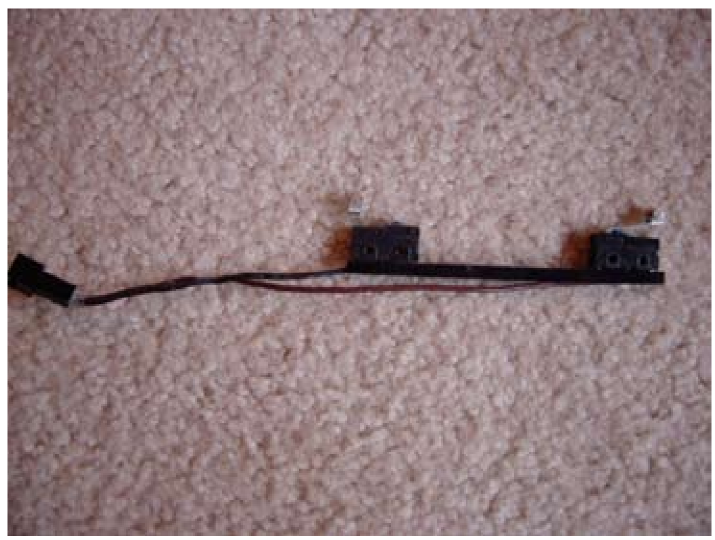


Figure 3.41

3.20 Limit Switch Assembly Replacement

1. Unplug the unit, loosen the top shroud and remove the left shroud. If you are replacing the right limit switch assembly, also remove the right shroud.

2 Unplug the motor from the controller board. The Left motor is the black plug, the Right motor is the white plug (Refer back to Figure 3.6).

3. Unplug the limit switch assembly from the motor (Figure 3.39).

4. Using a Phillips screwdriver, remove the four (4) screws securing the limit switch unit to the motor assembly (Figure 3.40), cut the small zip-tie, and remove the limit switch unit.

5. Position the new limit switch unit (Figure 3.41), attach it to the motor assembly with the Phillips screws, and secure the cable with a zip-tie..

6. Reconnect the limit switches to the motor

7. Reconnect the motor to the controller board.

8. Replace the right shroud (if it was removed), then the left shroud, and reposition the top shroud; secure with shroud screws.

SECTION IV: Supporting Documentation

Q45/Q45e/Q45ce Assembly Instructions

Q45/Q45e/Q45ce Operations Manual