

SECTION III

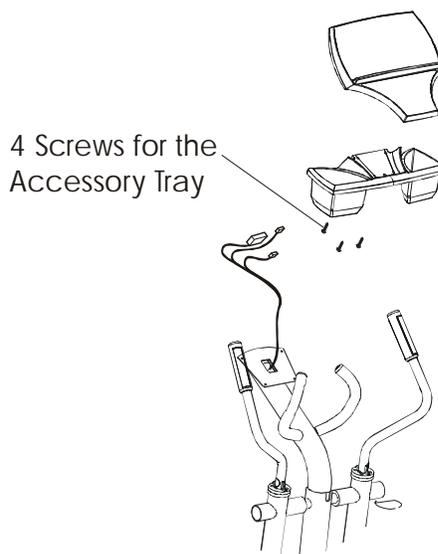
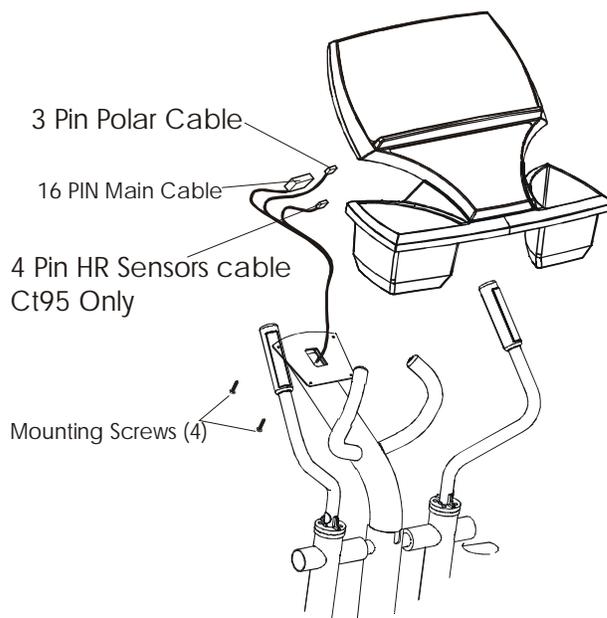
“How To...” SERVICE AND REPAIR GUIDE

Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To... Replace the Display Console and Accessory Tray

Tools required: Phillips screwdriver

1. Remove the (4) MOUNTING SCREWS from under the CONSOLE, Connecting the console to the post.
2. Lift the console up enough to disconnect the 16-pin and the 3-pin and 4-Pin connectors (on the CT9500).
3. Lift the console and remove.
4. If equipped, remove the accessory tray from the console. This is standard on CT95/91 and X9i and optional on CT85.
5. Install new console in reverse order.

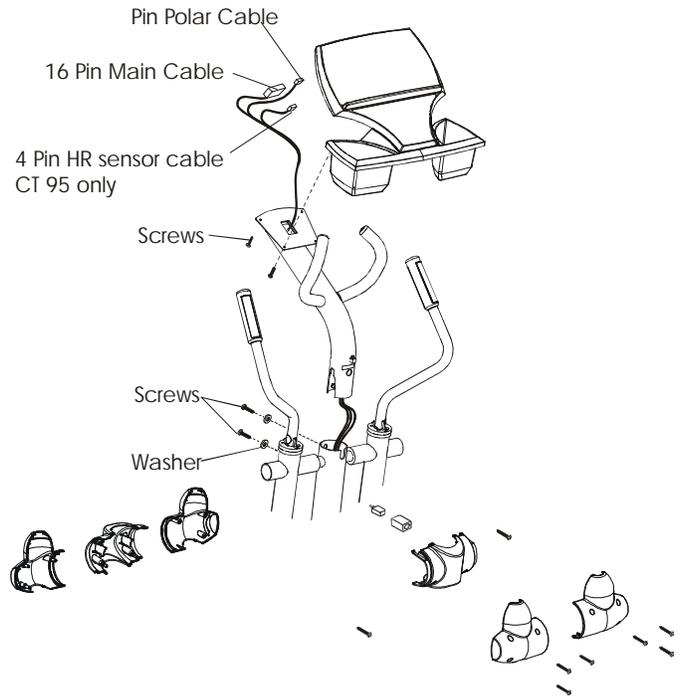


Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To... Replace the Display Console Support Assembly

Tools required: Phillips screwdriver and Allen wrench set

1. Remove the console and accessory tray. See "How To."
2. European CT91/85 models, remove the end cap, pull out the cable and remove the ferrite.
3. Remove the MONOCOLUMN COVER (ALL MODELS) and ROCKER ARM COVERS (9500).
4. Remove the POLAR RECEIVER.
5. Remove the two (2) HEX HEAD CAPSCREWS and FLAT WASHERS securing the CONSOLE SUPPORT ASSEMBLY.
6. Lift the CONSOLE POST out of the MONOCOLUMN while guiding the wire harness out.
7. Install new console support in reverse order.

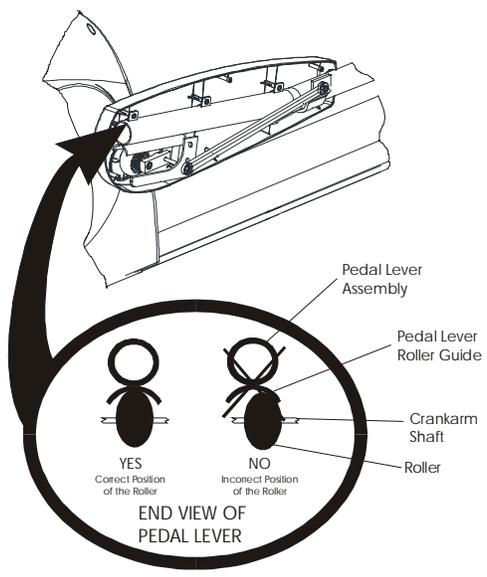
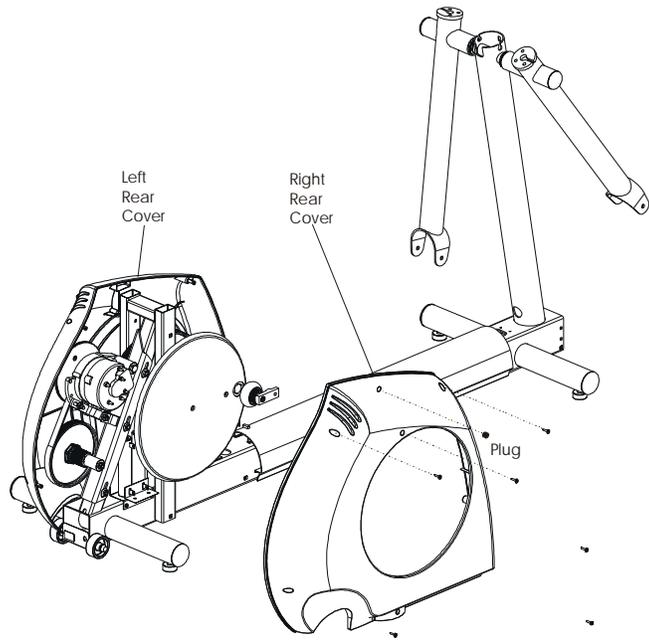
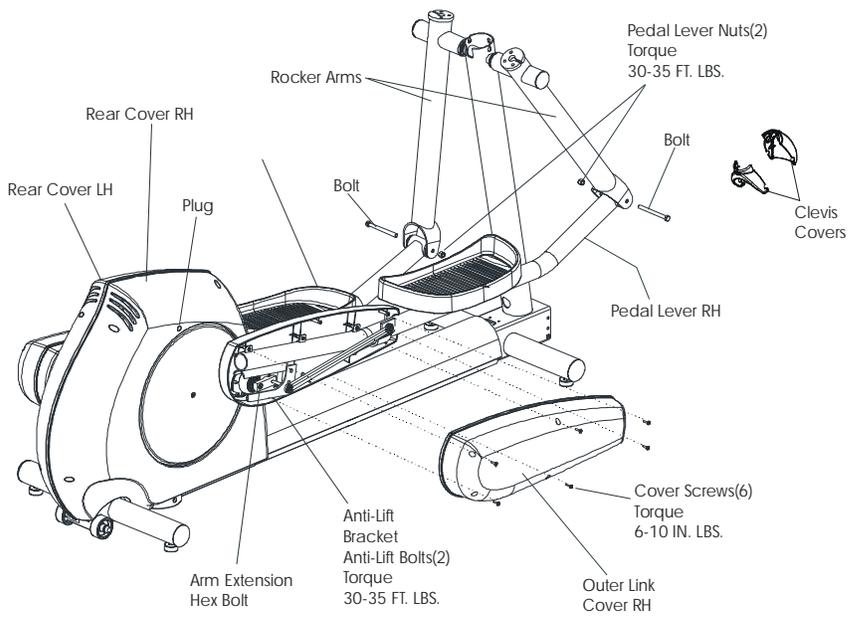


Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To... Replace The Rear Covers

Tools required: Phillips magnetic screwdriver #2, Allen wrench set, 3/8" Socket set, and Standard wrench set

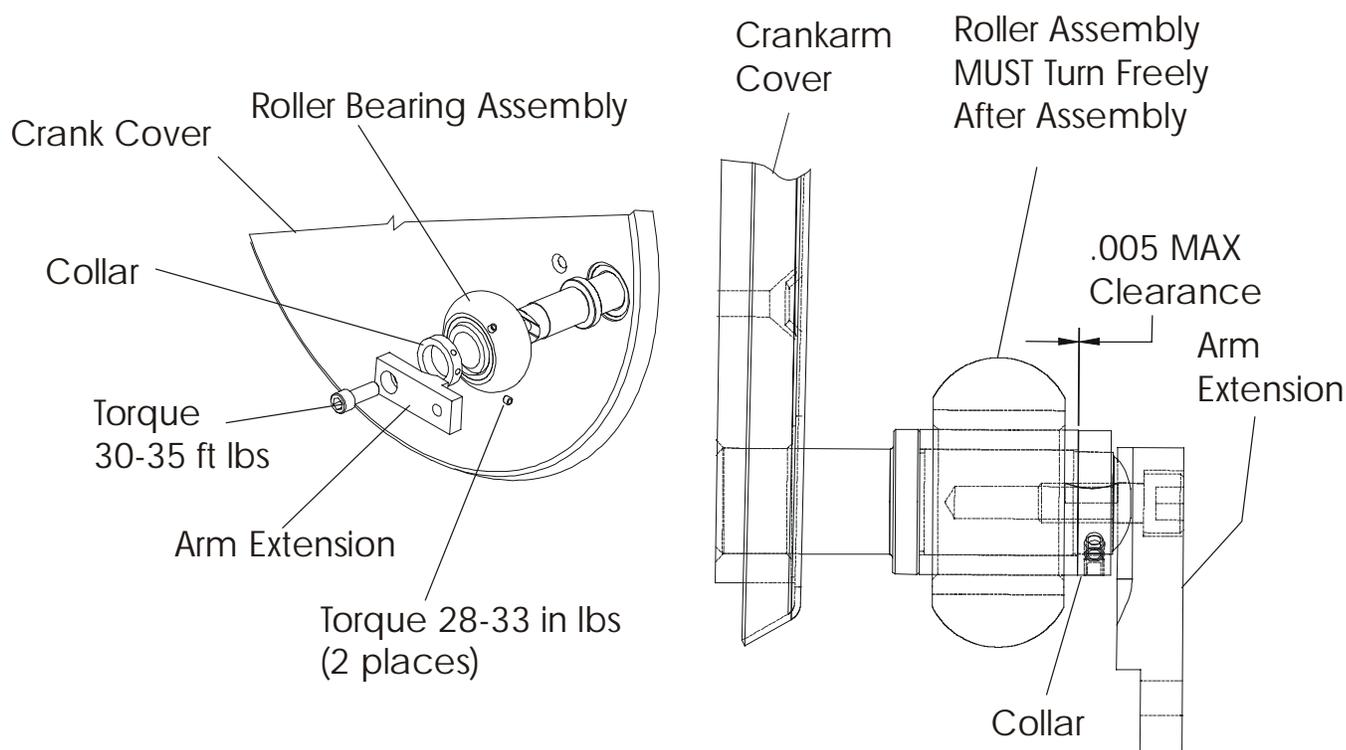
1. Remove the OUTER LINK COVER by removing six(6) mounting screws from each OUTER LINK COVER.
2. Remove the ANTI-LIFT BRACKET by removing two(2) mounting bolts from each bracket.
3. Remove the clevis cover from each pedal lever.
4. Remove the PEDAL LEVER by removing the mounting bolt and nut at each ROCKER ARM joint and the hex bolt from each ARM EXTENSION.
5. Remove the PLUG from the LEFT and RIGHT COVERS.
6. Remove the REAR COVER by removing three(3) screws from the LEFT REAR COVER then seven(7) screws from the RIGHT REAR COVER.
7. Install rear covers in reverse order. Make sure that each pedal-lever roller guide is centered over the roller. If not, loosen the pedal lever assembly mounting bolt and recenter the pedal lever so that it is centered on the roller, then retighten the mounting bolt.



Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers How To... Replace The Crankarm Roller Assembly

Tools required: Allen wrench set, and Phillips screwdriver

1. Remove the outer link covers.
2. Remove the ALLEN-HEAD CAPSCREW from the end of the ARM EXTENSION.
3. Remove the setscrew and collar, then remove the roller bearing assembly.
4. Install the ROLLER BEARING in the reverse order. Make sure that a maximum of .005" clearance is maintained between the ROLLER BEARING and the COLLAR. Ensure that the roller can rotate freely.

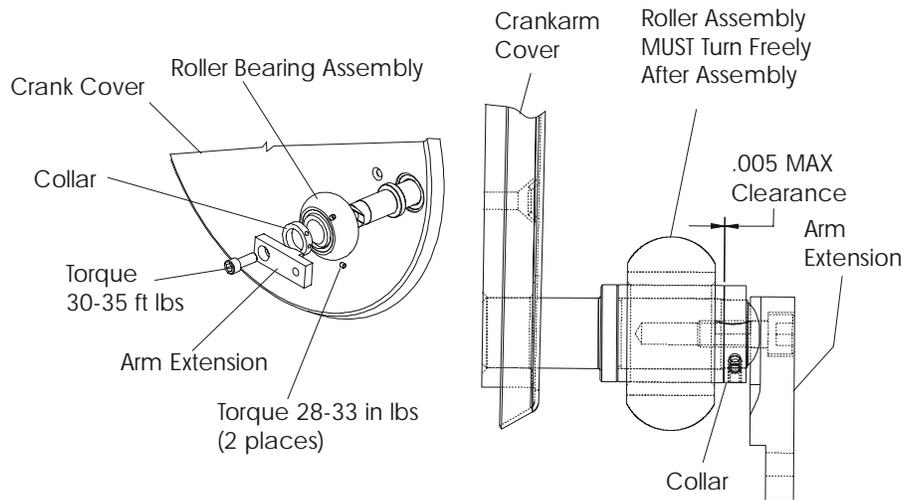


Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To... Replace The Crankarm Assembly

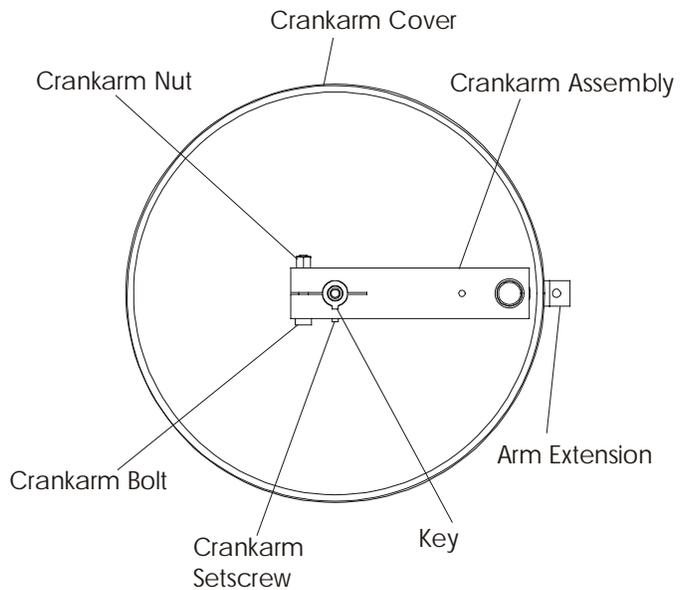
Tools required: Allen wrench set, and Phillips screwdriver

1. Remove the REAR COVERS. See How To... Remove Rear Covers.
2. Remove the ALLEN-HEAD CAPSCREW from the end of the ARM EXTENSION.
3. Remove the SETSCREW and COLLAR, then remove the roller bearing assembly.
4. Remove the two(2) countersunk screws securing the crankarm cover to the crankarm, and remove the CRANKARM COVER.



5. Remove the NUT and BOLT from the CRANKARM.
6. Remove the SETSCREW and KEY from the CRANKARM.
7. Remove the CRANKARM off the shaft.
8. Install the CRANKARM flush with end of crankshaft. Use new setscrews with patch or blue Loctite 242. Tighten setscrews first, then tighten clamping screw.
9. Install the crankarm cover and roller bearing in the reverse order. Make sure that a maximum of .005" clearance is maintained between the roller bearing and the collar. Ensure that the roller can rotate freely.

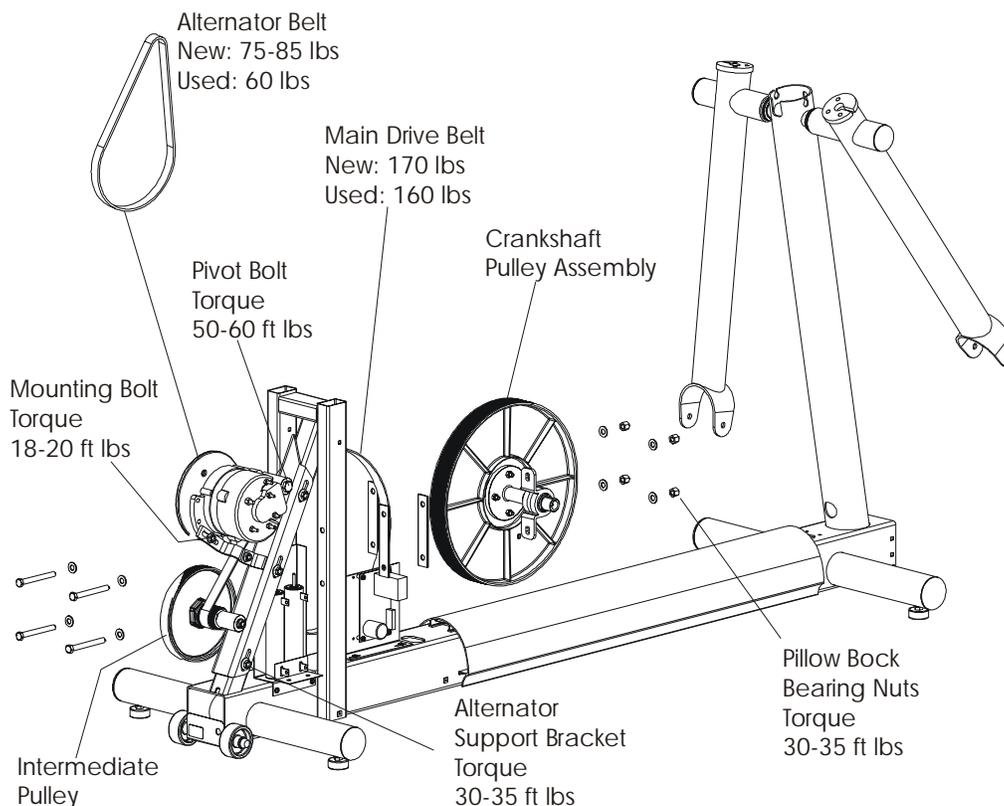
NEW STYLE



BACKSIDE VIEW

Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers How To... Replace The Drive Belt and Alternator Belt

Tools required: 3/8" Socket set and Standard wrench set, and Phillips screwdriver



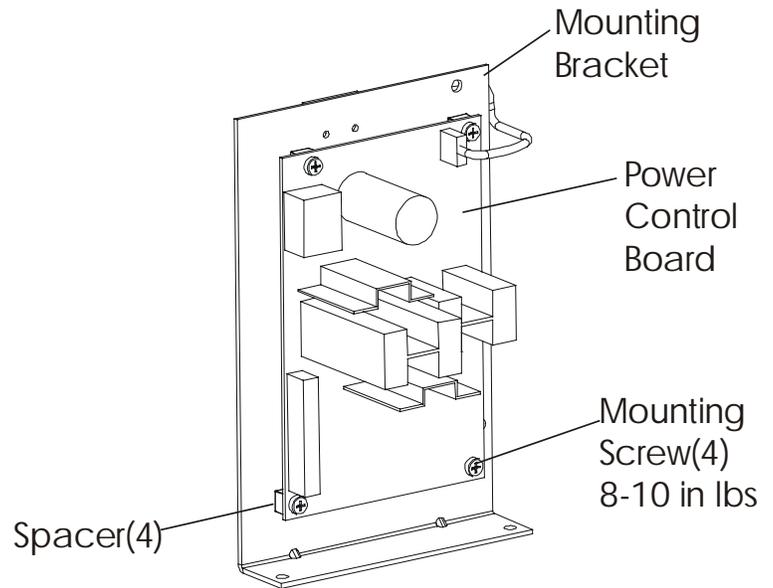
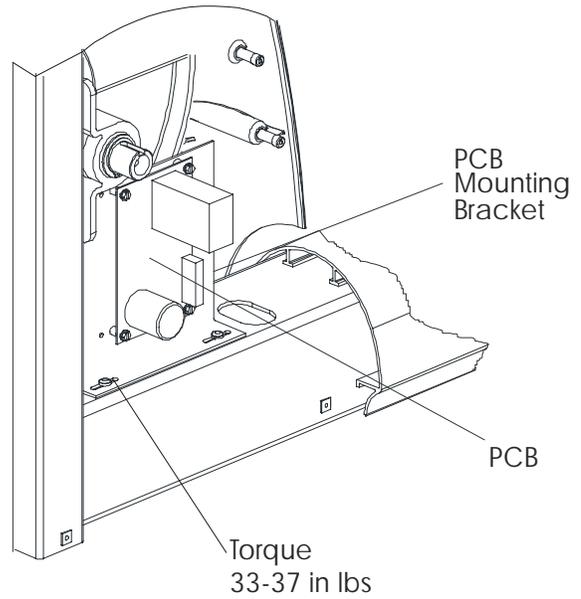
1. Remove the both REAR COVERS. See How To...Remove Rear Covers.
2. Loosen the ALTERNATOR PIVOT BOLT and release tension on the alternator belt, then remove the ALTERNATOR BELT off the INTERMEDIATE PULLEY.
3. Loosen the five(5) mounting bolts on the ALTERNATOR BRACKET and move the bracket upward and remove the DRIVE BELT off the crankshaft pulley assembly.
4. Remove the CRANKSHAFT PULLEY ASSEMBLY by removing four(4) mounting bolts at the PILLOW BLOCK BEARINGS.
5. Remove and discard the DRIVE BELT.
6. Install new 10-rib Kevlar drive belt and alternator belt in reverse order.

Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To...Remove Power Control Board Assembly

Tools Required: Slotted head screwdriver and Phillips screwdriver

1. Remove the right REAR COVER. See How To...Remove Rear Covers.
2. Remove the two securing the mounting bracket to the frame, and lift out the bracket with board.
3. Disconnect the 12, 13, and 3-Pin Connectors on the PCB.
4. Remove the PCB from its mounting bracket.
5. Install new PCB in reverse order.

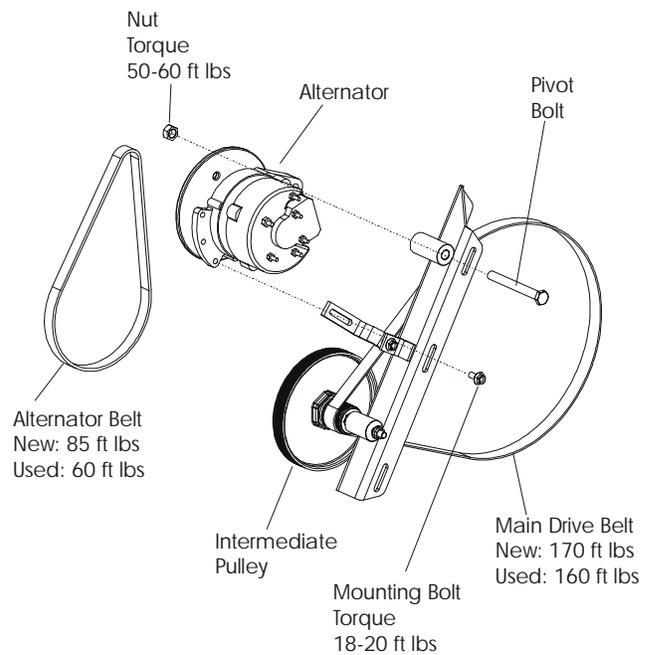
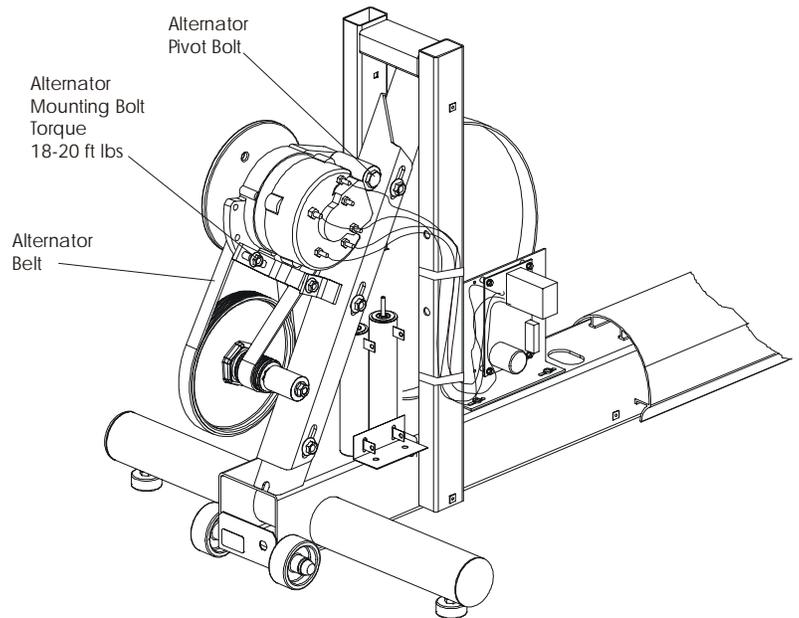


Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To...Replace Alternator

Tools Required: 3/8" Socket set and Standard wrench set, and Phillips screwdriver

1. Remove the REAR COVERS. See How To...Remove Rear Covers.
2. Disconnect the ALTERNATOR WIRING HARNESS from the alternator.
3. Remove the ALTERNATOR PIVOT BOLT and MOUNTING BOLT, then lift out the alternator.
4. Install new alternator in reverse order.

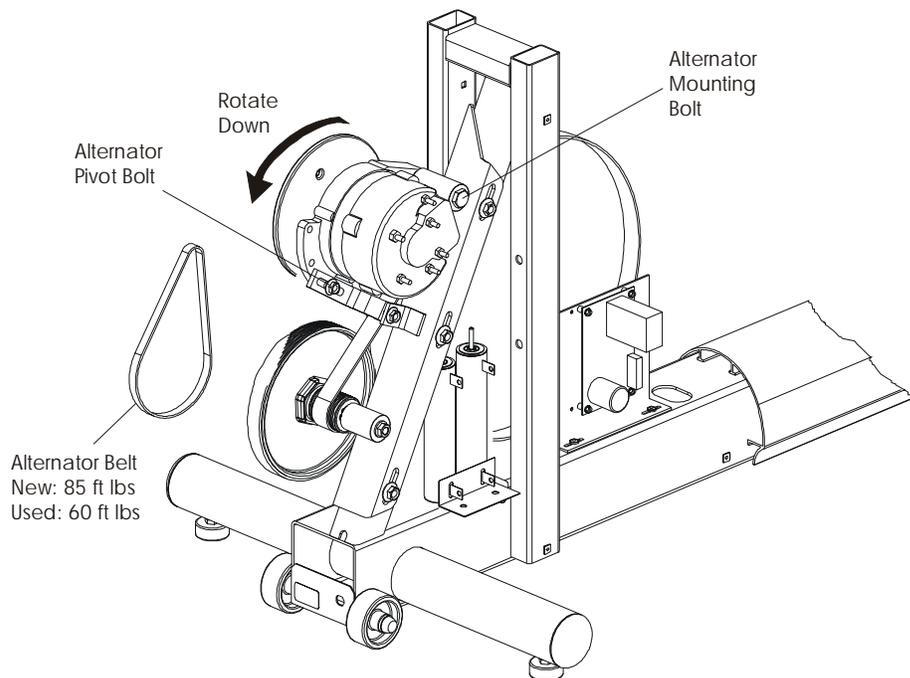


Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To...Replace Alternator Belt

Tools Required: 3/8" Socket set and Standard wrench set, and Phillips screwdriver

1. Remove the REAR COVERS.
See How To...Remove Rear Covers.
2. Loosen the ALTERNATOR PIVOT BOLT and its MOUNTING BOLT.
3. Rotate the alternator down to release belt tension, then remove the ALTERNATOR BELT.
4. Install new alternator belt in reverse order.



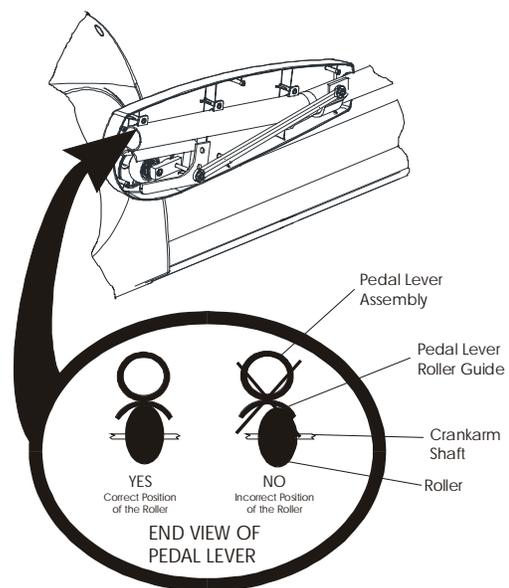
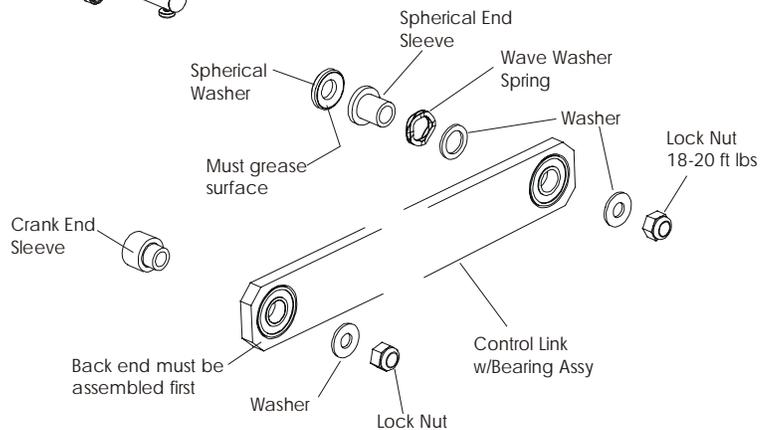
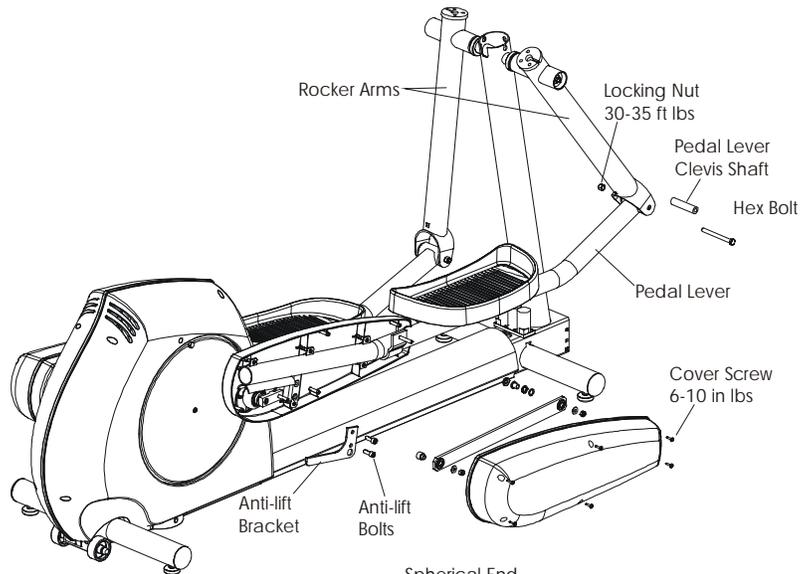
Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To... Replace Pedal Lever Assembly - 8500, 9100, and 9500HR

Tools required: Phillip screwdriver, Allen wrench set, 3/8" Socket set, and Standard wrench set

1. Remove six(6) screws from the OUTER LINK COVER and remove cover.
2. Remove the TIE ROD.
3. Remove the CLEVIS COVER from each pedal lever.
4. Remove the ANTI-LIFT BRACKET and lower the PEDAL LEVER ASSEMBLY.
5. Remove the nut and bolt securing the pedal lever to the ROCKER ARM, and remove the pedal lever.
6. Remove the inner link cover screws(4) and remove the inner link cover.
7. Install new pedal lever in reverse order except as follow:

- A) When tightening the clevis to the pedal lever bolt, the pedal lever track must be resting on the roller on the crankarm. See illustration below.
- B) The identificaion mark on the tie rod must be forward.
- C) An identification mark on the tie rod must face towards the front of the machine. Using a small amount of grease between the inner race of the bearing and sleeve, attach the tie rod at the rear of the machine first, then at the front.
- D) Use a small amount of grease between the spherical washer and the spherical end sleeve.

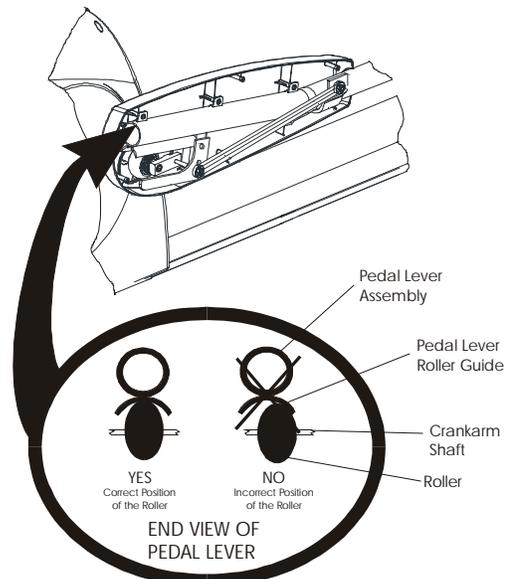
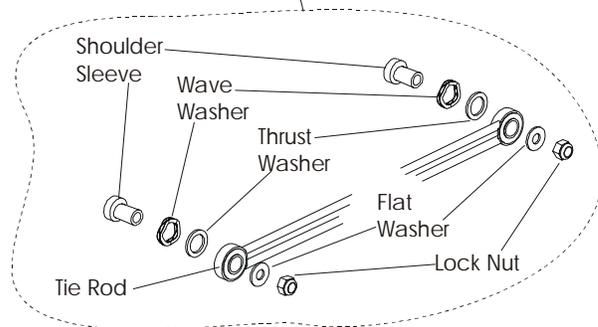
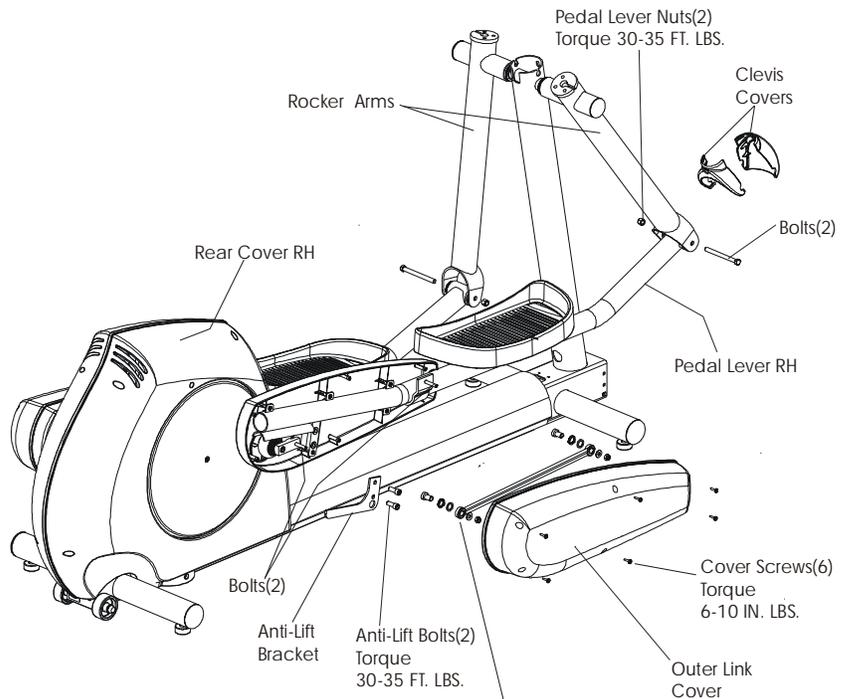


Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To... Replace Pedal Lever Assembly – X9i only

Tools required: Phillip screwdriver, Allen wrench set, 3/8" Socket set, and Standard wrench set

1. Remove six screws from the OUTER LINK COVER and remove cover.
2. Remove the TIE ROD.
3. Remove the CLEVIS COVER from each pedal lever.
4. Remove the ANTI-LIFT BRACKET and lower the PEDAL LEVER ASSEMBLY.
5. Remove the nut and bolt securing the pedal lever to the ROCKER ARM, and remove the pedal lever.
6. Remove the inner link cover screws(4) and remove the inner link cover.
7. Install new pedal lever in reverse order except as follow:
 - A) When tightening the clevis to the pedal lever bolt, the pedal lever track must be resting on the roller on the crankarm. See illustration below.
 - B) The identificaion mark on the tie rod must be forward.
 - C) An identification mark on the tie rod must face towards the front of the machine. Using a small amount of grease between the inner race of the bearing and sleeve, attach the tie rod at the rear of the machine first, then at the front.
 - D) Use a small amount of grease between the spherical washer and the spherical end sleeve.

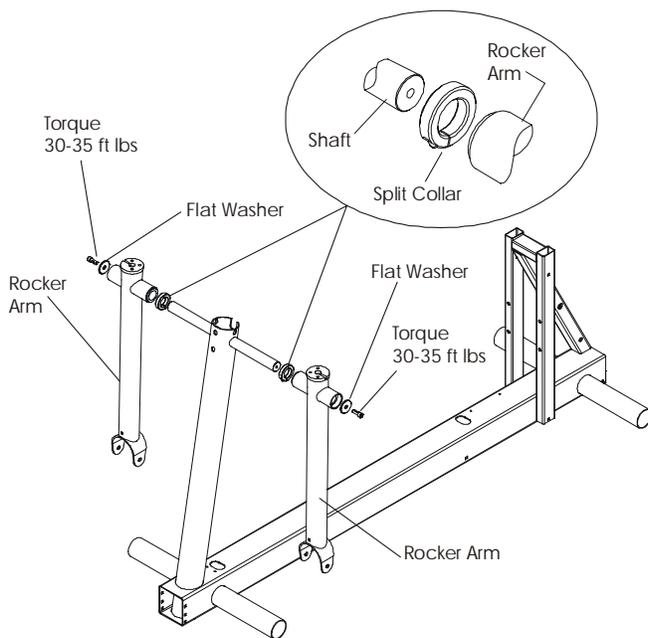
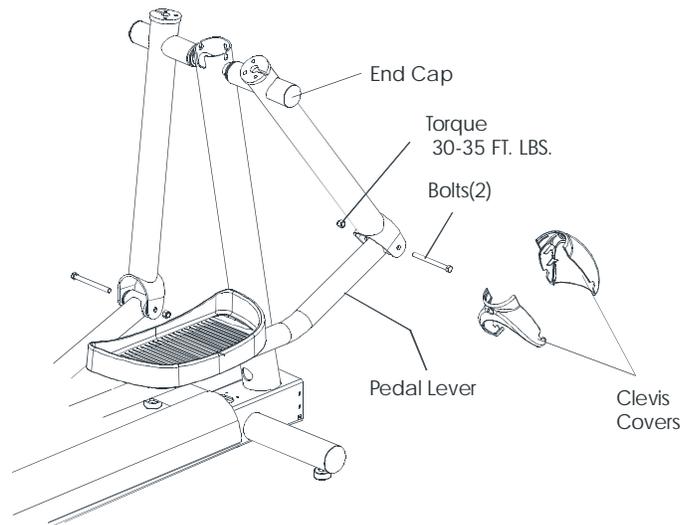


Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To... Replace Rocker Arms

Tools required: 3/8 Socket set and Standard wrench set

1. Remove the UPPER ARMS. See How To...Replace User Arms.
2. Remove the MONOCOLUMN COVERS and CLEVIS COVERS.
3. Remove the clevis cover from each pedal lever.
4. Remove the nut and bolt securing the PEDAL LEVER to the ROCKER ARM, and lower the pedal lever.
5. Remove the END CAP from the rocker arm (CT91, 85, and X9i).
6. Remove bolt and washer and slide-off the rocker arm.
7. Install new rocker arm in reverse order.
8. With the split collar positioned to within .005" gap of rocker arm, ensure that the rocker arm rotates freely.



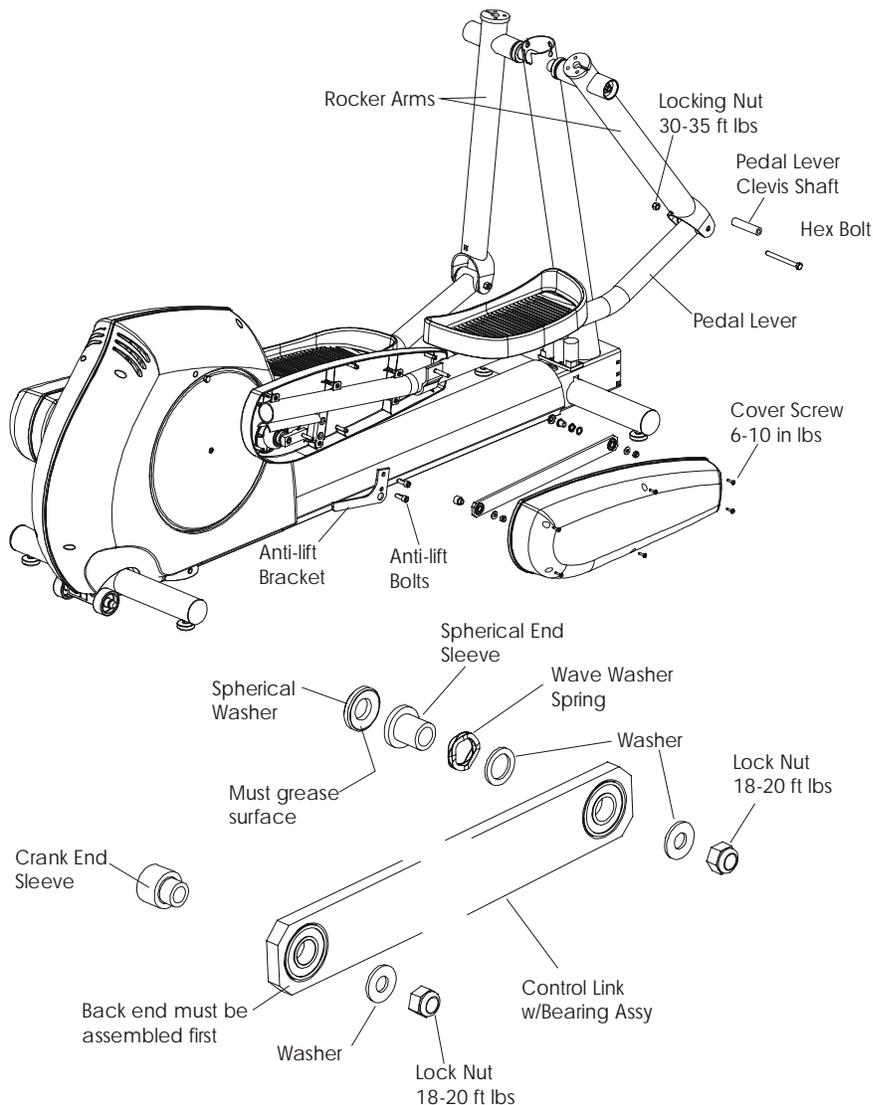
Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To... Replace Tie Rod for 8500, 9100, and 9500HR Cross-Trainers

Tools required: Phillips magnetic screwdriver #2 and 3/8 Socket set

1. Remove the OUTER LINK COVER by removing the six(6) mounting screws.
2. Remove the TIE ROD NUT from the ARM EXTENSION and PEDAL ARM.
3. Discard the tie rod and hardware.
4. Install new TIE ROD in reverse order.

NOTE: An identification mark on the tie rod must face towards the front of the machine. Using a small amount of grease between the inner race of the bearing and sleeve, attach the tie rod at the rear of the machine first, then at the front.



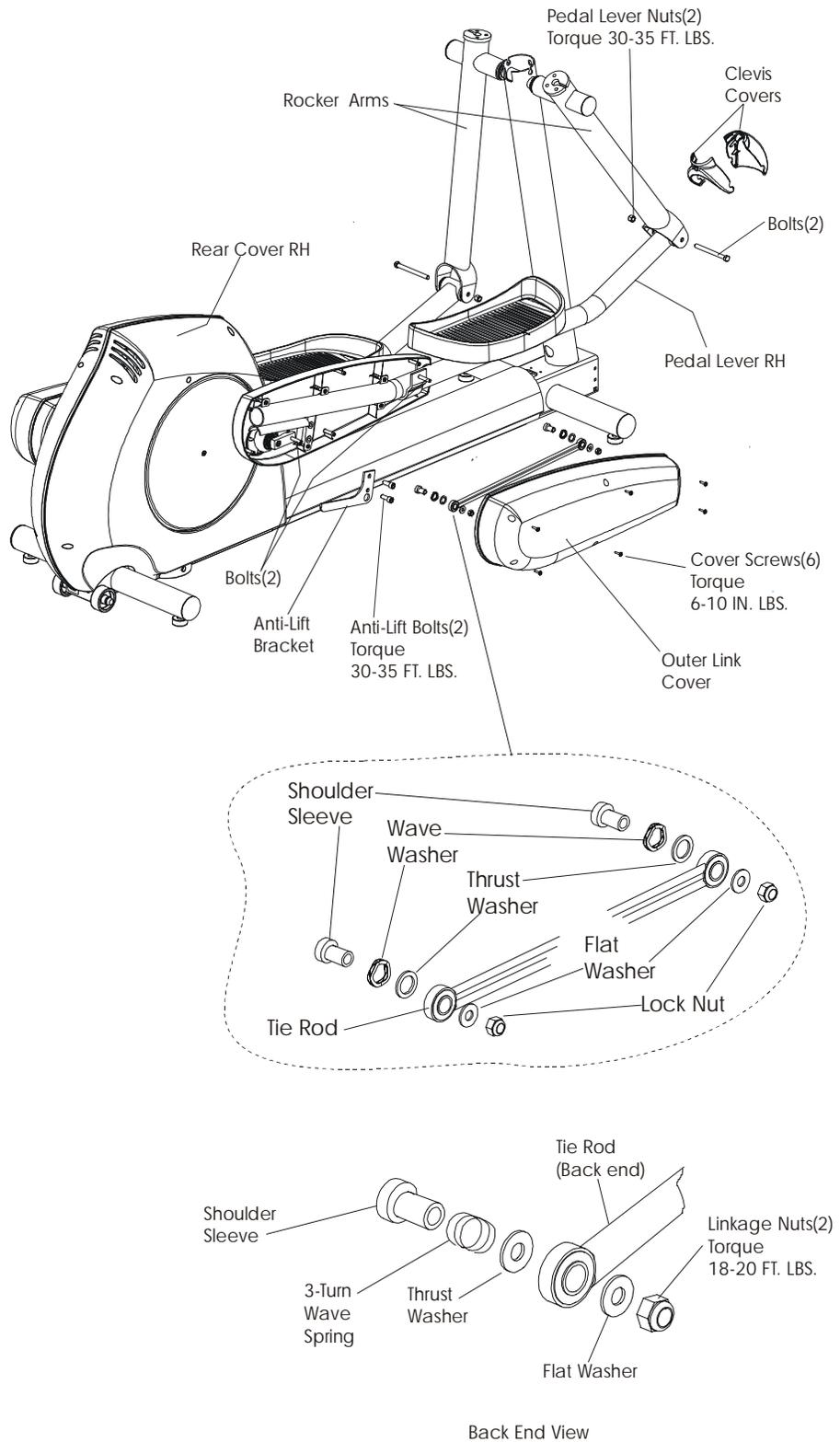
Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To... Replace Tie Rod for X9i

Tools required: Phillips magnetic screwdriver #2 and 3/8 Socket set

1. Remove the OUTER LINK COVER by removing the six(6) mounting screws.
2. Remove the TIE ROD NUT from the ARM EXTENSION and PEDAL ARM.
3. Discard the tie rod and hardware.
4. Install new TIE ROD in reverse order.

NOTE: An identification mark on the tie rod must face towards the front of the machine. Using a small amount of grease between the inner race of the bearing and sleeve, attach the tie rod at the rear of the machine first, then at the front.

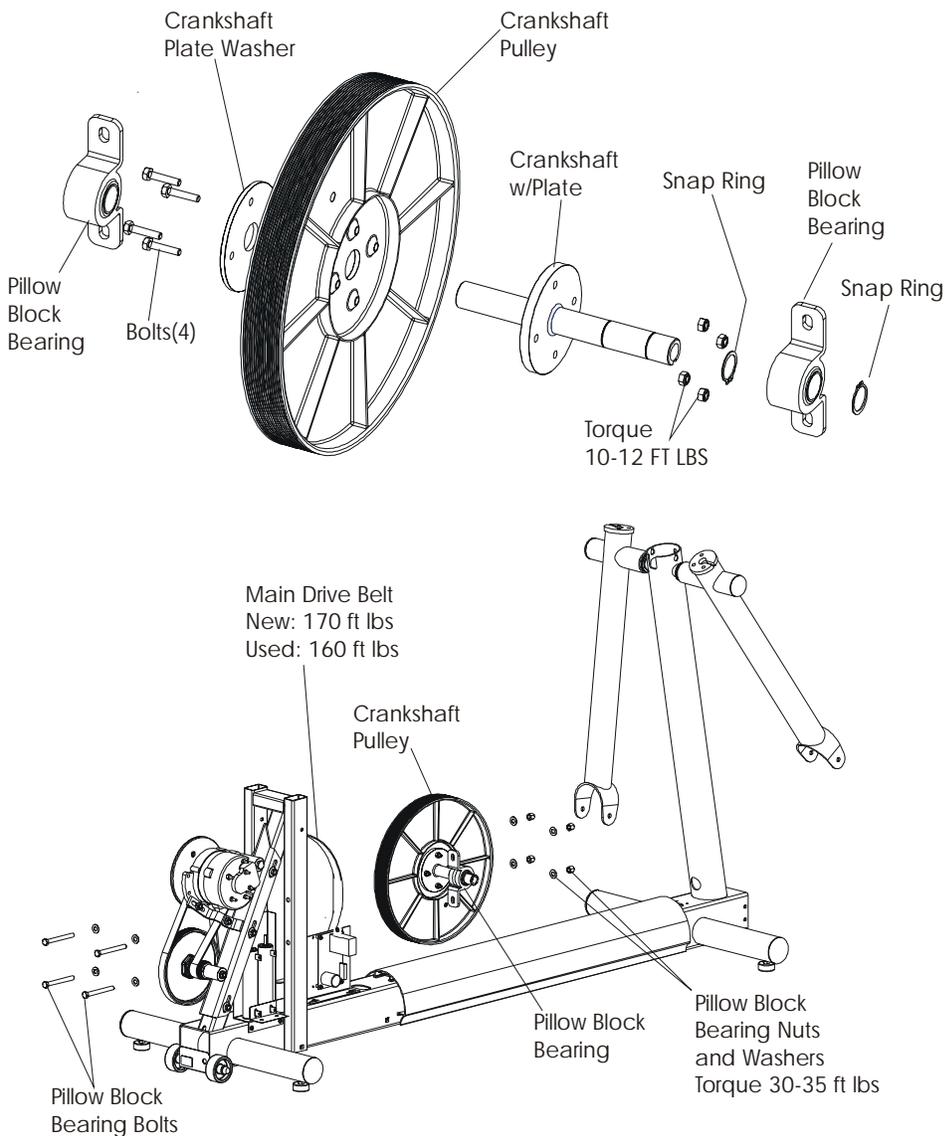


Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To... Replace Crankshaft Pulley Assembly - 8500, 9100, and 9500HR

Tools required: Allen wrench set, 3/8" Socket set, and Standard wrench set

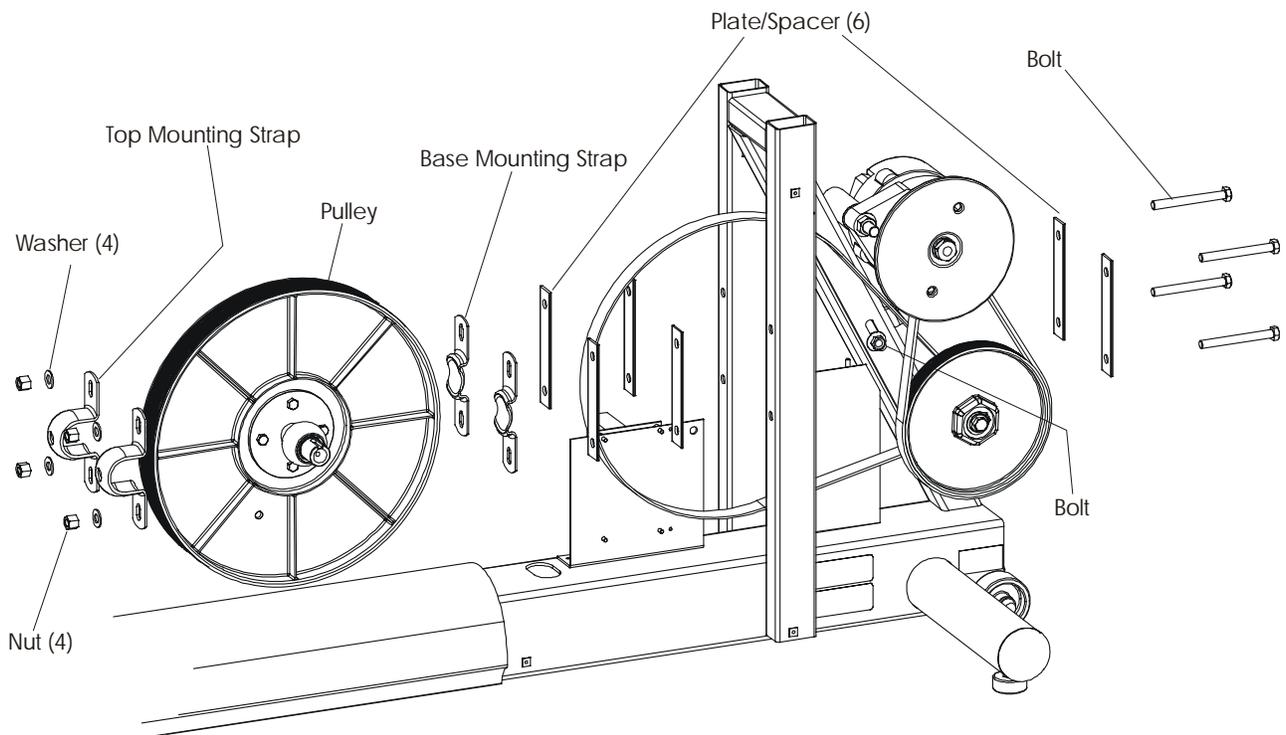
1. Remove the REAR COVERS. See How To...Remove Rear Covers.
2. Loosen five(5) mounting bolts on the ALTERNATOR SUPPORT BRACKET. Push this bracket up to remove tension on the DRIVE BELT, and remove the drive belt.
3. Remove four(4) bolts from the CRANKSHAFT PULLEY ASSEMBLY by removing four(4) mounting bolts at the PILLOW BLOCK BEARINGS.
4. Replace components on the crankshaft pulley assembly as necessary.
5. Install new crankshaft pulley in reverse order.



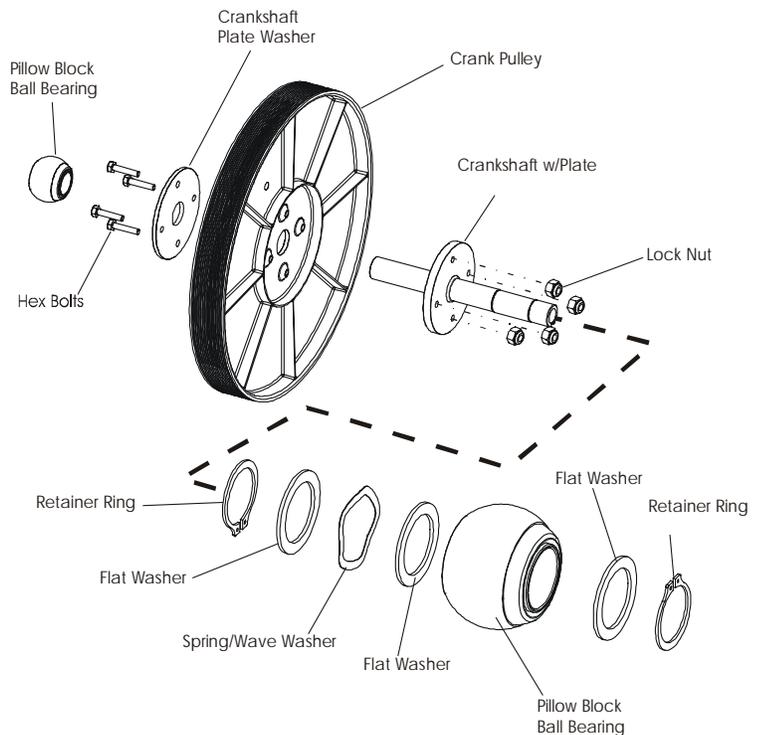
Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To... Replace Crankshaft Pulley Assembly for X9i

Tools required: Allen wrench set, 3/8" Socket set, and Standard wrench set



1. Remove the REAR COVERS. See How To...Remove Rear Covers.
2. Loosen five(5) mounting bolts on the ALTERNATOR SUPPORT BRACKET. Push this bracket up to remove tension on the DRIVE BELT, and remove the drive belt.
3. Remove the top mounting straps securing the pillow block ball bearings.
4. Remove retaining ring and pull off the pillow block ball bearing from the left and right sides.
5. Remove the bolts and nuts from the crank plates, and remove the crankshaft from the pulley.
6. Install new crank pulley and components as required.

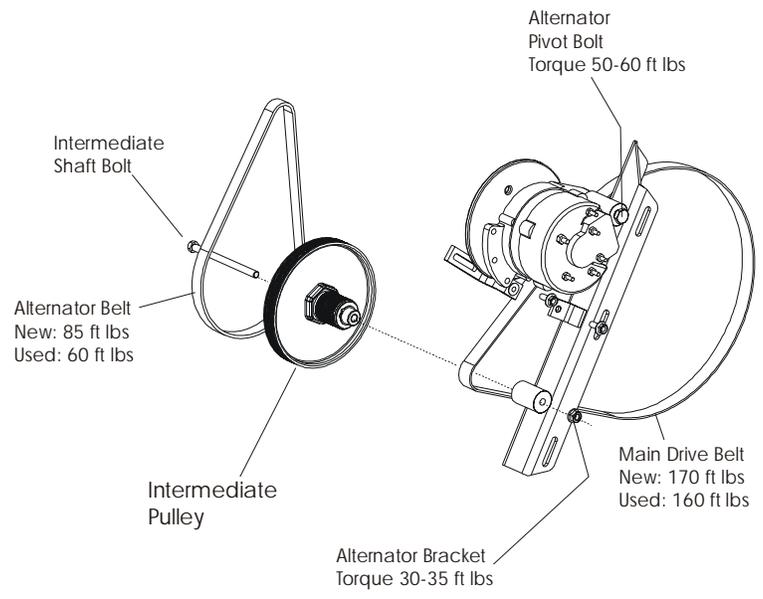
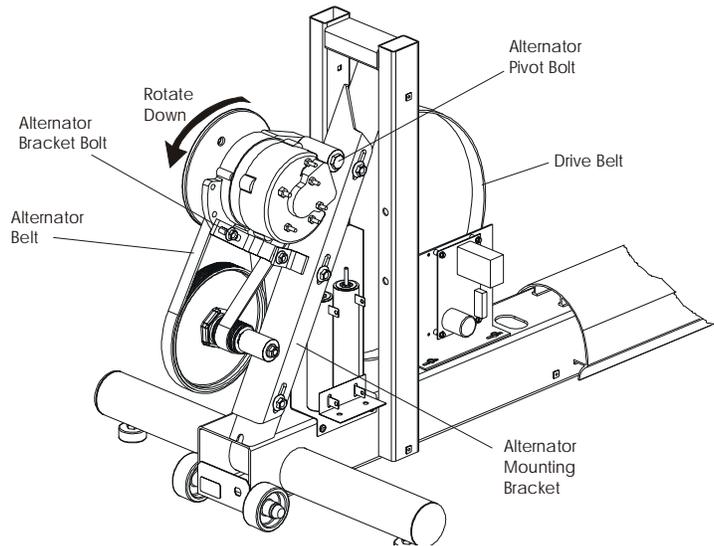


Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To... Replace The Intermediate Pulley

Tools required: 3/8" Socket set and Standard wrench set

1. Remove the REAR COVERS. See How To...Remove Rear Covers.
2. Loosen the ALTERNATOR PIVOT BOLT and rotate the alternator down to relieve belt tension.
3. Loosen the belt tension on the INTERMEDIATE PULLEY by loosening the five(5) bolts on the ALTERNATOR MOUNTING BRACKET.
4. Remove the INTERMEDIATE SHAFT BOLT and the INTERMEDIATE PULLEY.
5. Install new INTERMEDIATE PULLEY in reverse order.

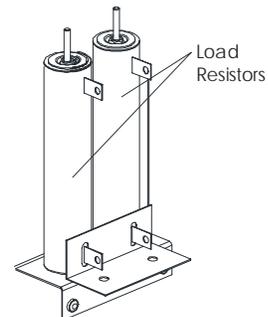
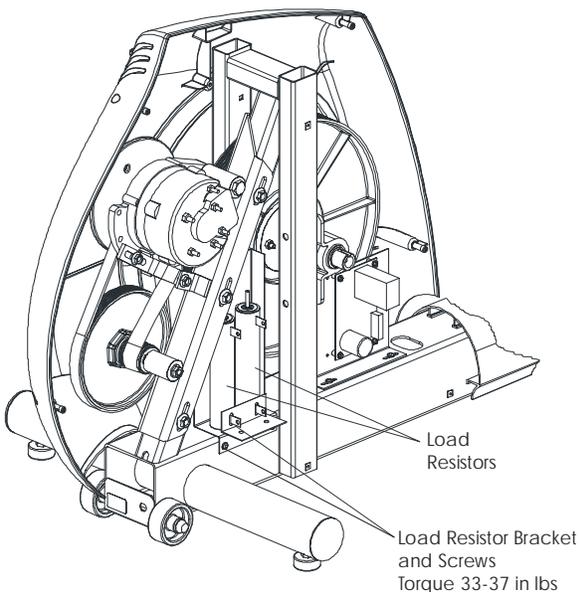


Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To... Replace Load Resistors

Tools required: Slotted screwdriver

1. Remove the right REAR COVER. See How To...Remove Rear Covers.
2. Disconnect wires at the LOAD RESISTORS.
3. Remove the LOAD RESISTORS by removing two(2) hex-head screws securing the load resistor to the frame.
4. Install new load resistors in reverse order.

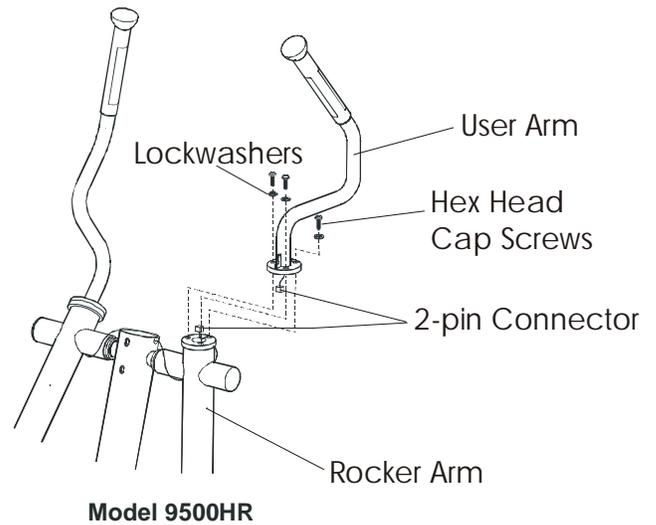
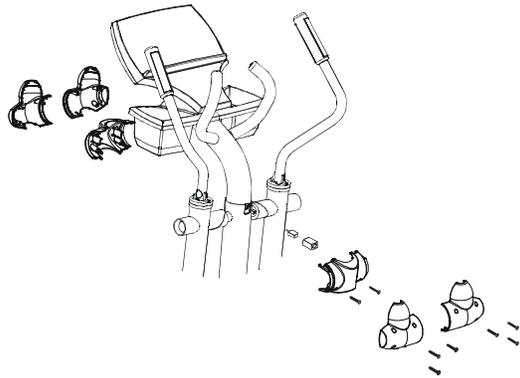
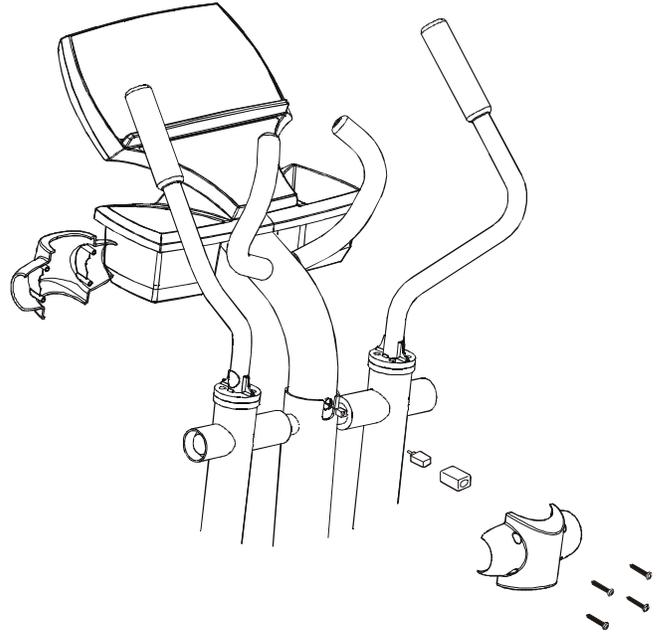


Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To... Replace The User Arms

Tools required: Allen wrench set and Phillips screwdriver

1. **MODELS 8500 and 9100:** Raise the BOOT COVERS on the UPPER ARMS.
MODEL 9500: Remove four(4) mounting bolts from the USER ARM REAR COVERS and remove these covers.
2. Remove three(3) MOUNTING BOLTS from each UPPER ARM and lift off the user arm. Units with Heart Rate, disconnect electrical connector.
3. Install new user arms in reverse order.



Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

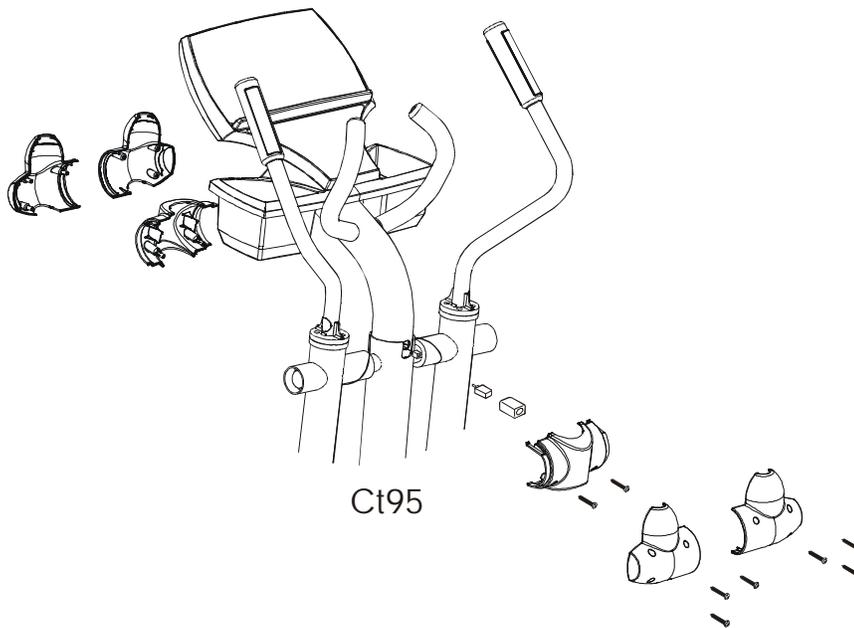
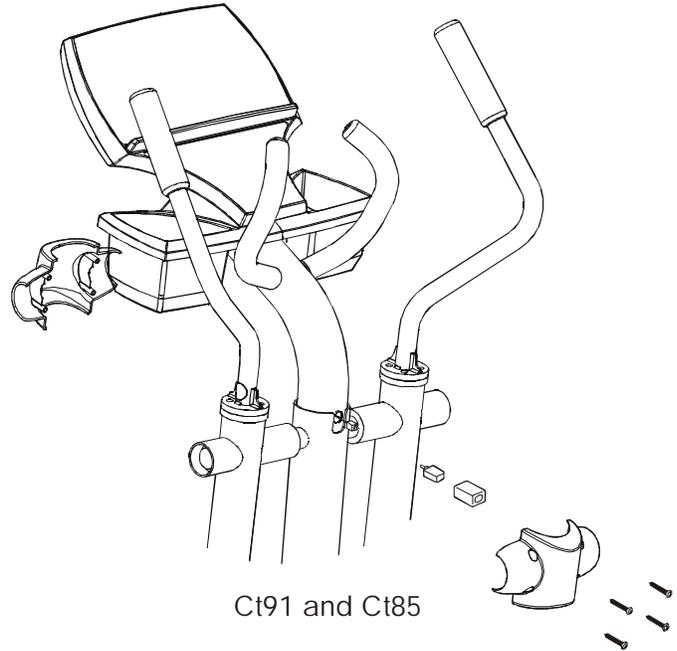
How To... Replace The Polar Receiver & Replace Monocolumn Cover

Tools required: Phillips screwdriver

1. **MODELS 8500 / 9100:** Remove four(4) mounting bolts from the two halves of the MONOCOLUMN COVER and separate.
2. **MODEL 9500:** Remove four(4) mounting bolts from each USER ARM REAR COVER(2). Then remove four(4) mounting bolts from the MONOCOLUMN COVERS and separate the two halves.
3. Locate the POLAR RECEIVER in the monocolumn and disconnect it from its jack.

Install a new POLAR RECEIVER in reverse order.

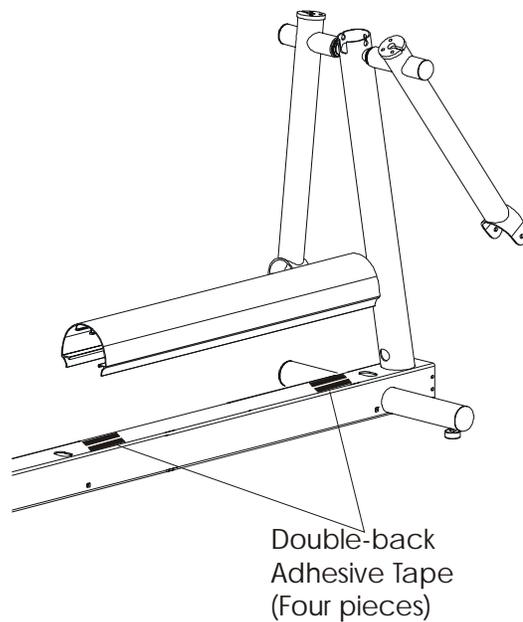
Note: Telemetry is optional on the domestic CT8500.



Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers **How To... Replace The Frame Cover**

Tools required: Phillips screwdriver, Standard screwdriver, Allen wrench set, 3/8" Socket set, and Wrenches

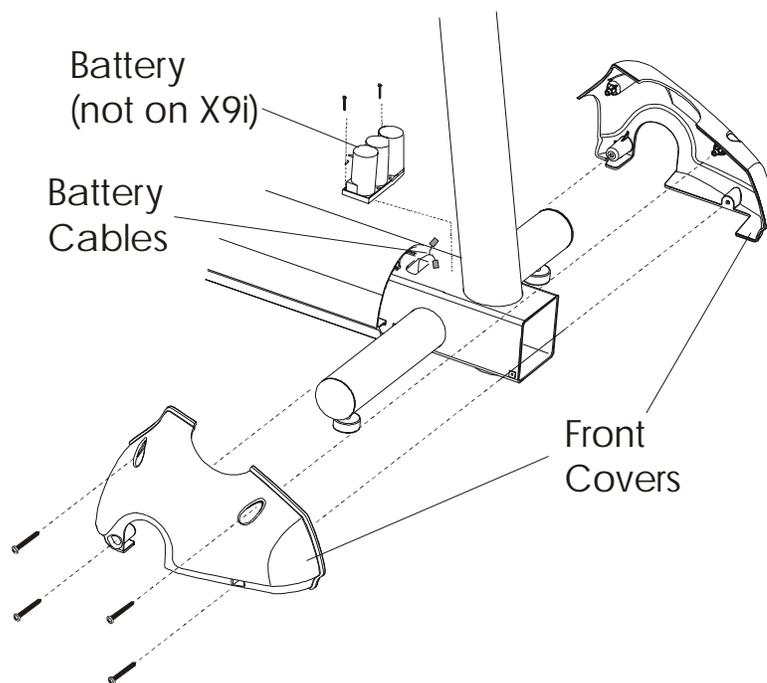
1. Remove the FRONT COVERS.
2. Remove the FRAME COVER which is adhered to the frame with double-back tape.
3. Clean the frame with alcohol and allow to dry.
4. Install four(4) pieces of tape to the underside of the cover, then install the FRAME COVER.



Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers How To... Replace The Battery - 8500, 9100, and 9500HR

Tools required: Phillips magnetic screwdriver #2

1. Remove the six FRONT COVER screws and separate the front cover halves.
2. Disconnect the BATTERY CABLES.
3. Remove the battery mounting screws(2) and lift out the BATTERY.
4. Install new battery in reverse order.

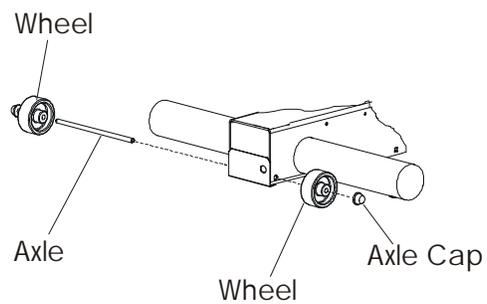
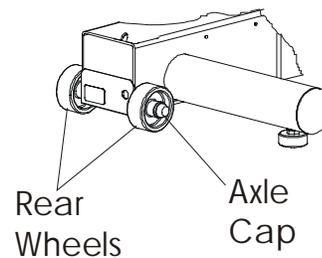


Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To... Replace The Rear Wheels and Axle

Tools required: Slotted screwdriver and Pliers

1. Remove the AXLE CAP from the WHEEL AXLE.
2. Remove the WHEELS and AXLE.
3. Install new wheels, axle, and axle cap in the reverse direction.

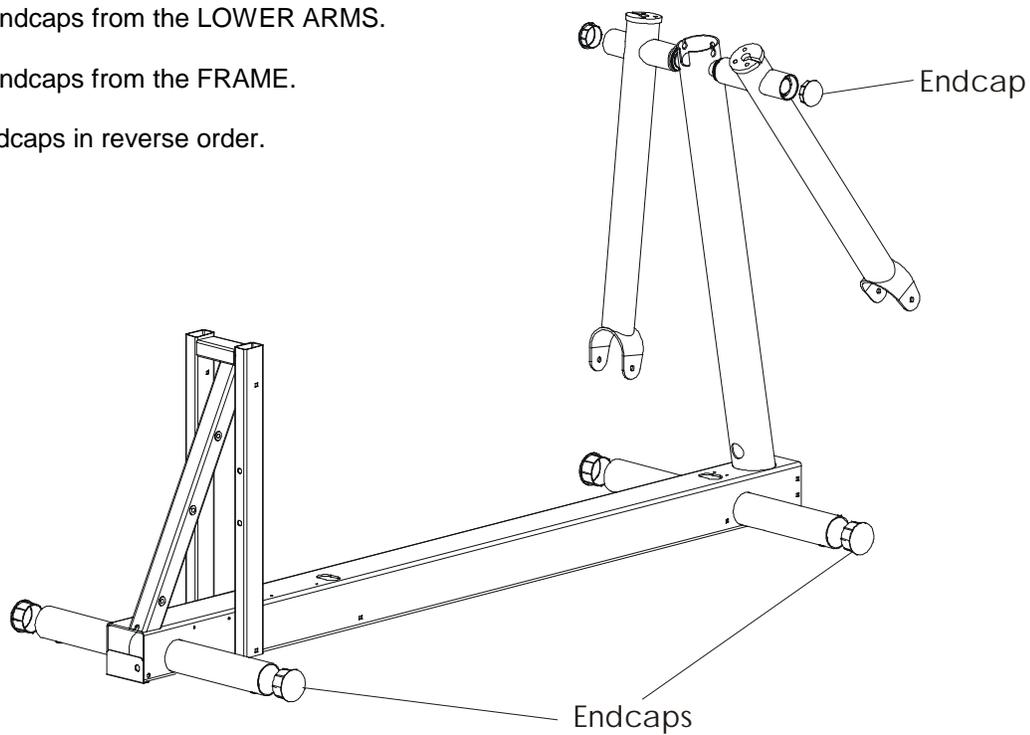


Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To... Replace The Endcaps

Tools required: Slotted screwdriver

1. Remove the endcaps from the LOWER ARMS.
2. Remove the endcaps from the FRAME.
3. Install new endcaps in reverse order.

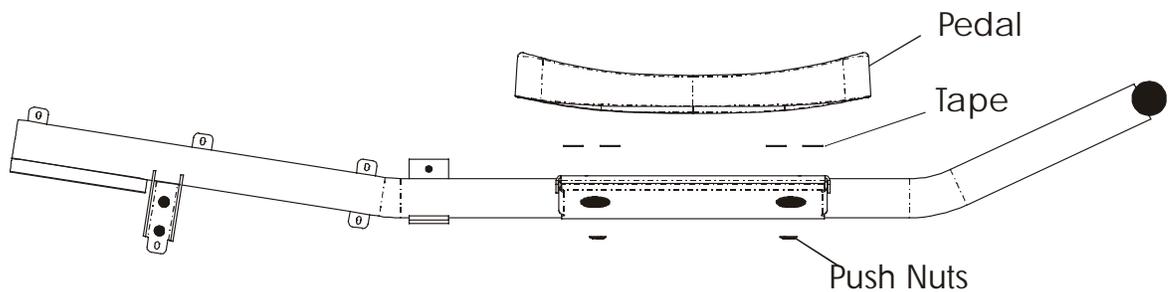
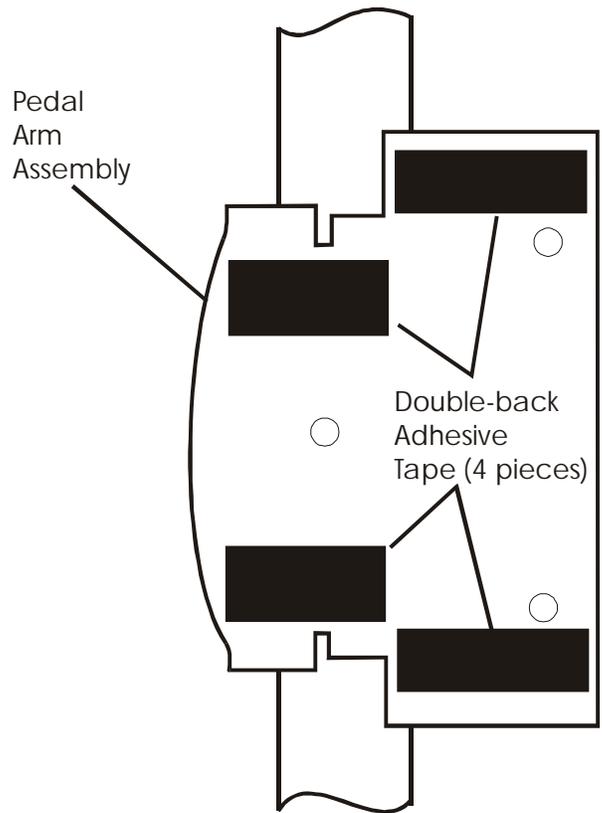


Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To... Replace Pedal

Tools required: Clean cloth, water, and isopropyl alcohol

1. Remove the pedals from the pedal arm assemblies.
2. Remove old tape.
3. Using a clean cloth, carefully clean the surface areas using a moisture of 50% water and 50% isopropyl alcohol. Make sure all adhesive is removed from the pedal and pedal arm assembly and make sure that surface areas are perfectly dried.
4. Apply four(4) pieces of double-back adhesive tape on the pedal arm assembly as shown.
5. Reinstall the pedal and apply 30-40 psi clamp pressure for approximately 60 seconds or longer.
6. Install the push nuts. A socket or nut driver works well to press them firmly in place.

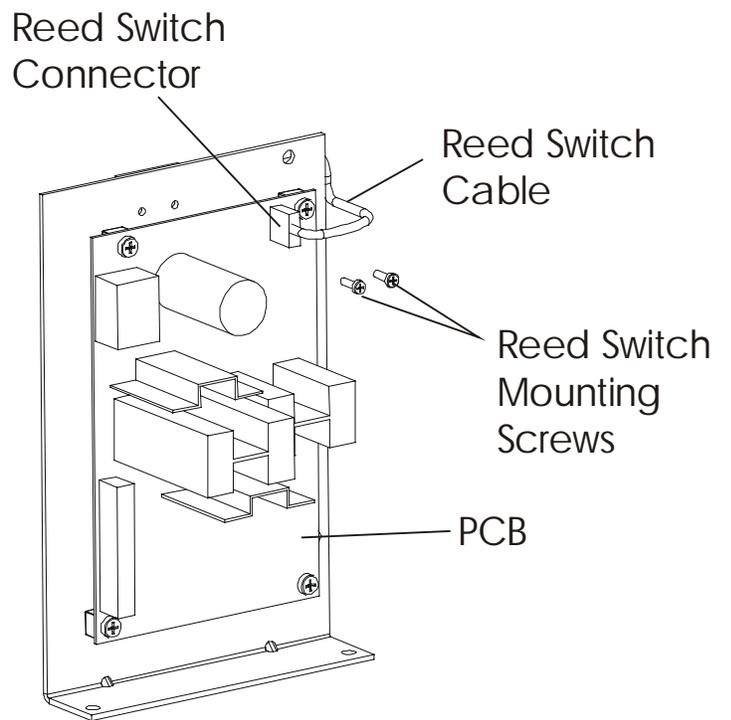
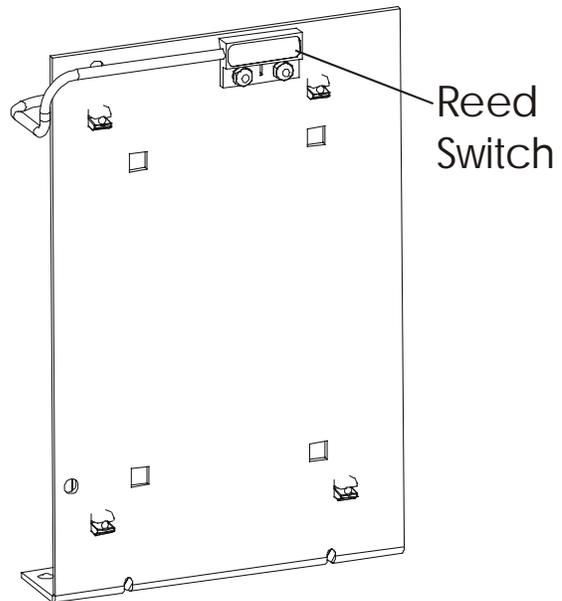


Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

How To...Replace The Reed Switch - 8500, 9100, and 9500HR

Tools required: Phillips Screwdriver

1. The reed switch is located on the back side of the PCB bracket (CT85/91/95 only).
2. Remove two screws from the bracket on the PCB side.
3. Disconnect the reed switch connector from the PCB and remove the reed switch assembly.



Life Fitness Models X9i, 8500, 9100, and 9500HR Cross-Trainers

NOTES:
