

PRO-FORM

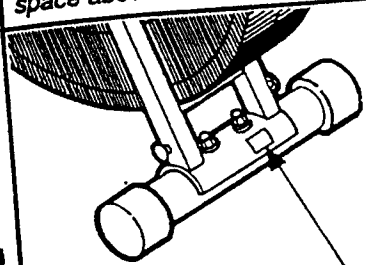
# AIR CYCLE

## PROGRAMMABLE RESISTANCE FITNESS TRAINER

Model No. 831.287450

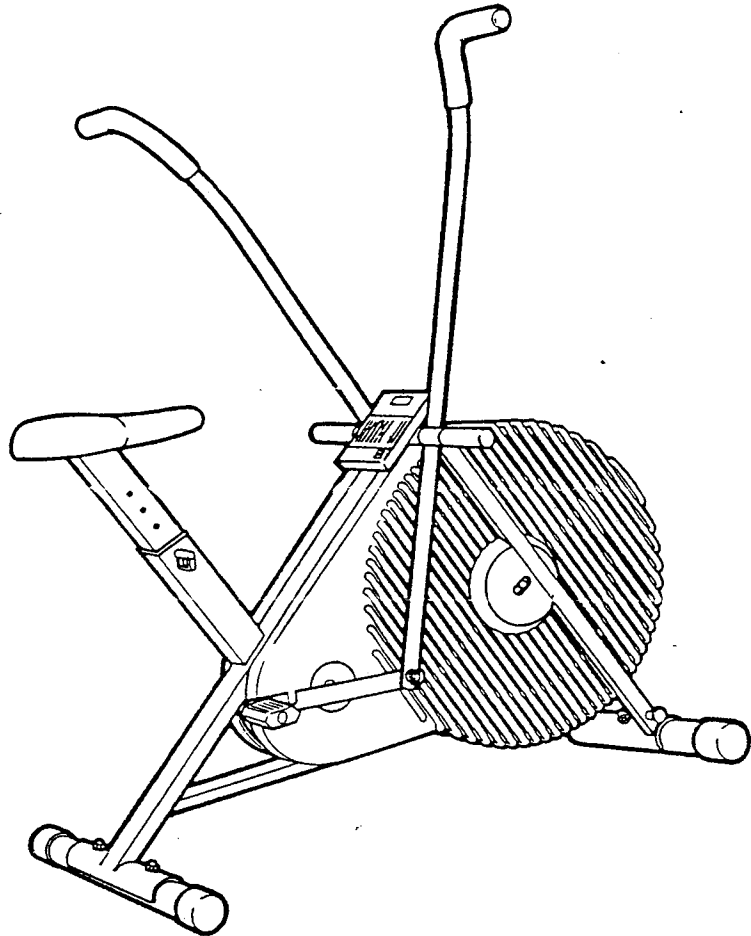
Serial No. \_\_\_\_\_

Write the serial number in the  
space above for reference.



Serial Number Decal

PATENT PENDING



# SEARS<sup>®</sup>

## MANUAL OWNER'S

**QUESTIONS?:** As a manufacturer, we are committed to providing you complete customer satisfaction. If you have any questions, or find there are missing or damaged parts, we guarantee you complete satisfaction through direct assistance from our factory. TO AVOID UNNECESSARY DELAYS, PLEASE CALL DIRECT TO OUR TOLL-FREE CUSTOMER HOT LINE. Let the trained technicians on our Customer Hot Line provide immediate assistance, free of charge to you. CUSTOMER HOT LINE: 1-800-999-3756, Mon. - Fri., 6 am - 6 pm MST.

**CAUTION:** Read all safety precautions and instructions in this manual carefully before using this equipment. Save this manual for future reference.

Part No. 101839 4/91

SOLD BY SEARS, ROEBUCK AND COMPANY, CHICAGO, IL 60684

PRO-FORM

# AIR CYCLE

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### FULL 90 DAY WARRANTY ON PARTS

For 90 days from the date of purchase, when proper assembly and maintenance procedures detailed in the Owner's Manual are followed, Sears will, free of charge, repair or replace and install a replacement part for any defective part, when the Programmable Resistance Exercise Bike is used in a normal manner.

This warranty does not apply when the Programmable Resistance Exercise Bike is used for commercial or rental purposes.

**SERVICE IS AVAILABLE BY SIMPLY RETURNING THE PROGRAMMABLE RESISTANCE EXERCISE BIKE TO YOUR NEAREST SEARS SERVICE CENTER/DEPARTMENT IN THE UNITED STATES.**

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

SEARS, ROEBUCK AND CO., DEPT. 731CR-W, CHICAGO, IL 60684

# IMPORTANT SAFETY PRECAUTIONS

**WARNING:** To reduce the risk of burns, fire, electric shock or injury to persons, read the following important safety precautions and information before operating the exercise bike.

1. Plug the power cord directly into any standard outlet. Keep the cord away from walkways and heated surfaces. Do not use an extension cord.
2. Always plug in the power cord and turn on the power before using the exercise bike. Do not use the bike if the power cord or plug are damaged, or if the bike is not functioning properly. (Refer to the BEFORE YOU BEGIN section.)
3. Position the exercise bike on a level surface. Do not use the bike near water or outdoors.
4. Wear appropriate attire when exercising. Do not wear flowing clothing that could become caught in the bike. Always wear running or aerobic shoes.
5. Keep hands and feet away from the link arms during use. Keep small children away from the bike.
6. Use this exercise bike only as described in this manual. Servicing other than the procedures described in this manual should be performed by an authorized service representative.

**WARNING:** Before beginning this or any exercise program consult your physician. This is especially important for individuals over the age of 35 or persons with pre-existing health problems. Read all instructions before using. Sears assumes no responsibility for personal injury or property damage sustained by or through the use of this Sears product.

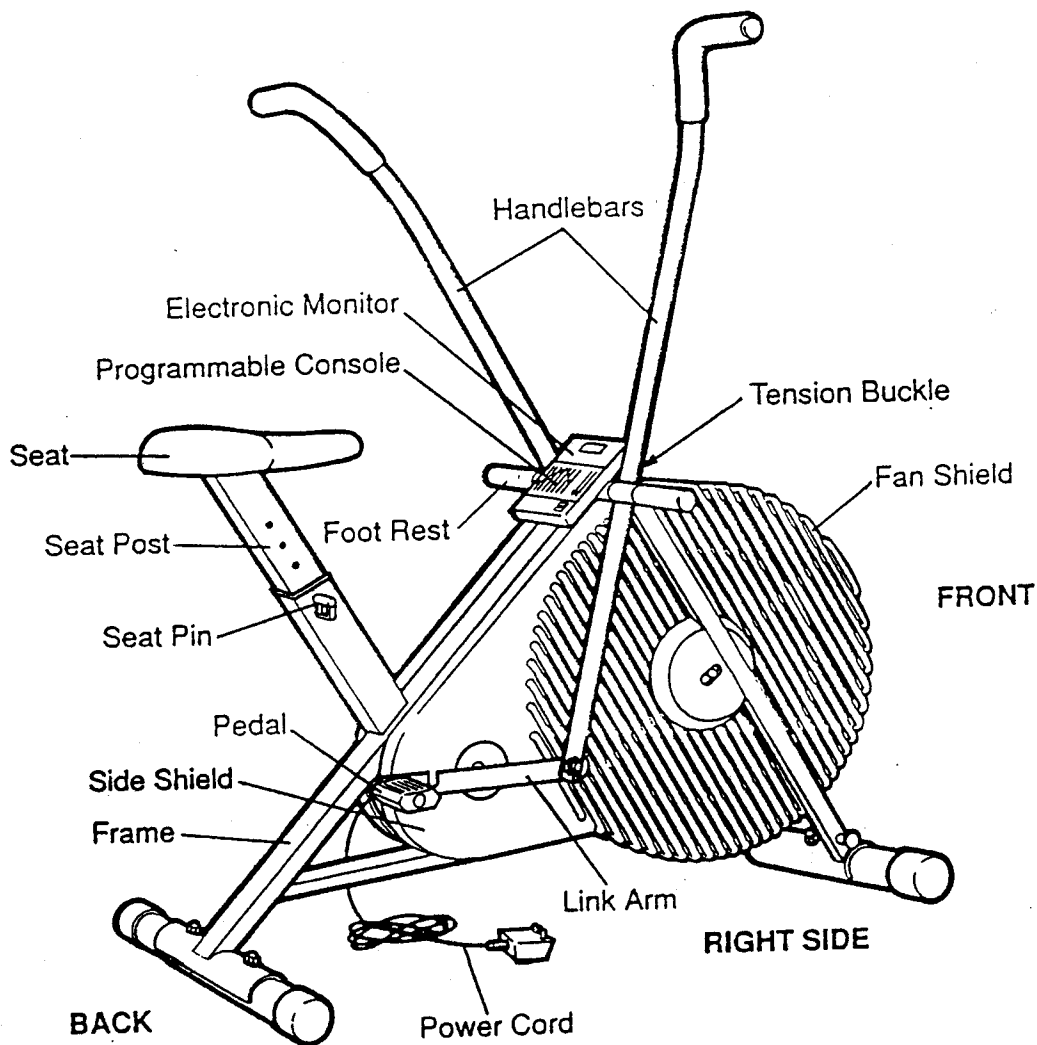
## SAVE THESE INSTRUCTIONS

# BEFORE YOU BEGIN

Thank you for selecting the Pro Form AIR CYCLE Programmable Resistance Fitness Trainer. The Pro Form AIR CYCLE blends advanced engineering and ergonomic styling to offer you an effective and enjoyable cardiovascular workout in the convenience and privacy of your home. The heart of the AIR CYCLE is a unique programmable console, designed to control pedaling resistance automatically according to custom workout programs you create.

For your safety and benefit, **read this manual carefully before using this equipment.** If you have additional questions, please call our Customer Service Department toll-free at 1-800-999-3756, during our business hours: Monday - Friday, 6 a.m. - 6 p.m. Mountain Time. In all communications regarding this product, please refer to the product model number and serial number. The model number is printed on the front cover of this manual. The serial number is recorded on a decal affixed to the product (see the drawing on the front cover).

Before reading the following sections of this manual, please review the drawing below and familiarize yourself with the parts labeled.

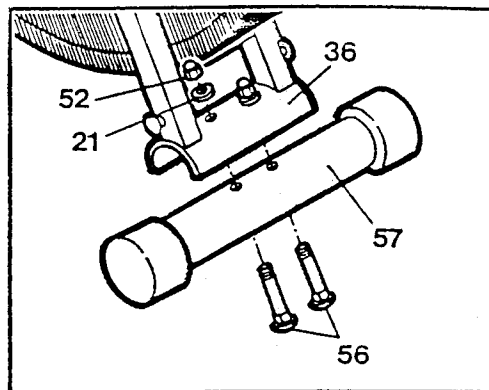


# ASSEMBLY

Place all parts in a cleared area and remove the packing materials. Do not dispose of the packing materials until the bike is fully assembled and all parts are accounted for. Read the instructions below carefully before beginning. Assembly can be completed using an adjustable wrench.

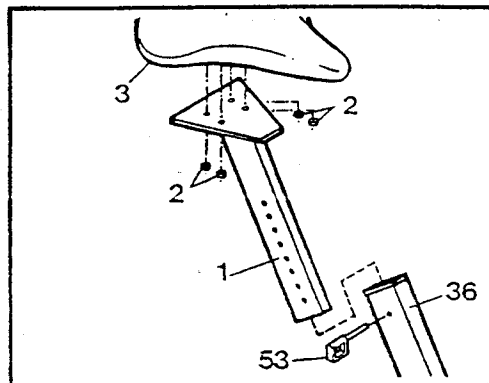
Attach a Stabilizer (57) to the front of the Frame (36) with two Carriage Bolts (56), Washers (21) and Acorn Nuts (52). (The Stabilizer must be turned so that the square holes in the Stabilizer are downward.)

Attach the other Stabilizer to the back of the Frame in the same manner (not shown).

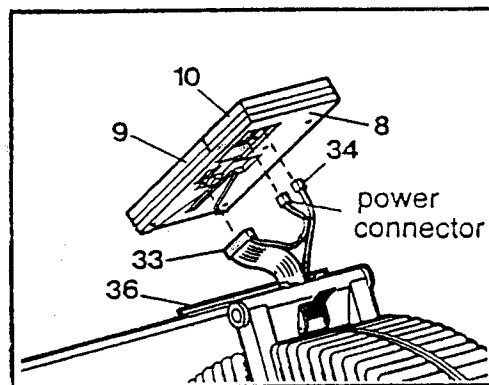


Remove the four Seat Nuts (2) from the underside of the Seat (3). Attach the Seat to the top of the Seat Post (1) with the four Nuts.

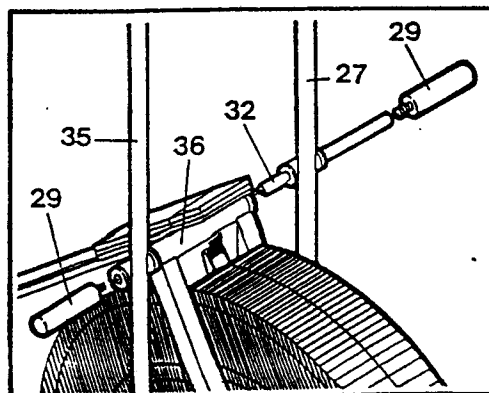
Insert the Seat Post into the Frame (36), adjust the Seat to the desired height, and insert the Seat Pin (53) through the Frame and Seat Post.



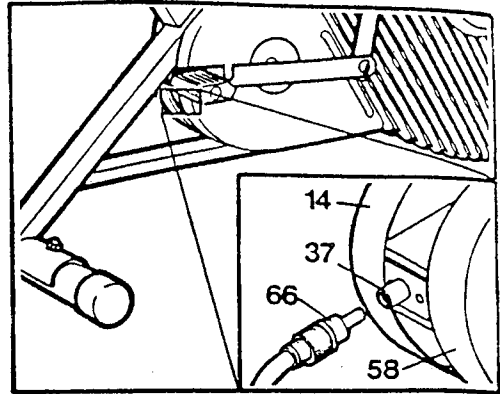
Plug the Wire Harness (33) into the back of the Programmable Console (9). Plug the power connector into the jack labeled "POWER" on the Electronic Monitor (10). Plug the Sensor Wire (34) into the jack labeled "SPEED" on the Electronic Monitor. Slide the Console Plate (8) onto the mounting bracket on the Frame (36).



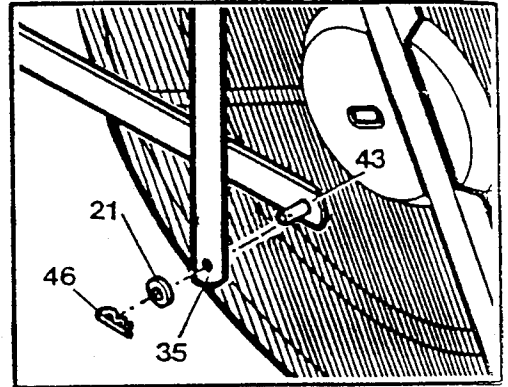
Slide the Pivot Shaft (32) into the Frame (36). Slide the Left Handlebar (27) onto the left end of the Shaft. Slide the Right Handlebar (35) onto the right end of the Shaft. Attach the Handlebars by tightening the Foot Rests (29) into the ends of the Pivot Shaft.



5. Plug the Power Cord (66) into the Power Plug (37) at the rear of the Side Shields (14, 58).



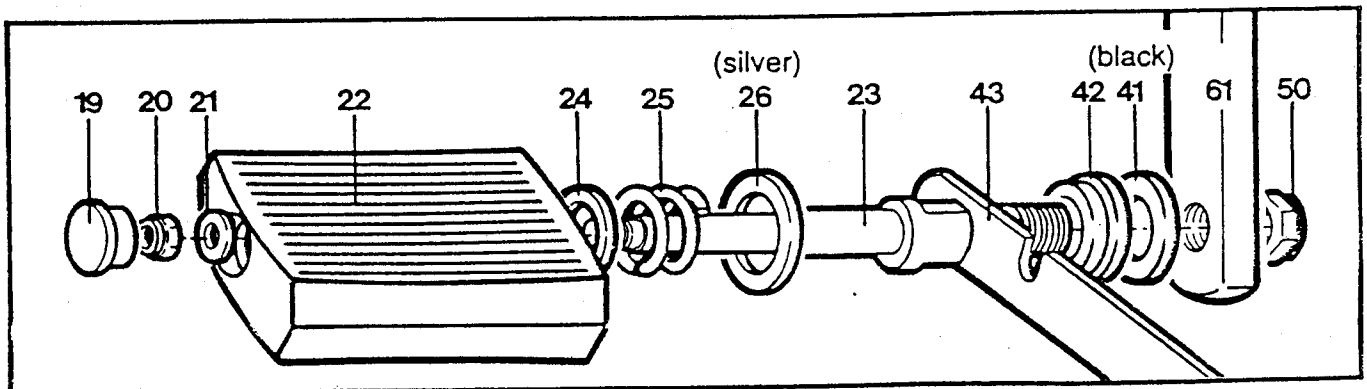
6. Insert the Pin in the right Link Arm (43) through the hole in the lower end of the Right Handlebar (35), and slide a Washer (21) onto the Pin. (When the Pin in the right Link Arm is pointed outward as shown, the large opening in the other end of the Link Arm will be downward.) Insert a Cotter Pin (46) through the Pin.



Attach the left Link Arm to the Left Handlebar in the same manner (not shown).

7. Slide a Link Arm Bushing (42) and a Link Arm Washer (41) onto the end of a Pedal Shaft (23). Thread the Pedal Shaft clockwise into the right arm of the Crank (61), and **tighten the Pedal Shaft firmly**. Tighten a Shaft Nut (50) onto the end of the Pedal Shaft. Fit the end of the right Link Arm (43) over the Pedal Shaft and **slide it onto the Link Arm Bushing**. Slide a Pedal Washer (26), Pedal Spring (25), Spring Washer (24), and Pedal (22) onto the Pedal Shaft. (The end of the Pedal with the deepest recess should be away from the bike.) Attach the Pedal with a Washer (21) and Pedal Nut (20). Press a Pedal Cap (19) into the end of the Pedal.

Attach the other Pedal to the left arm of the Crank in the same manner (not shown).

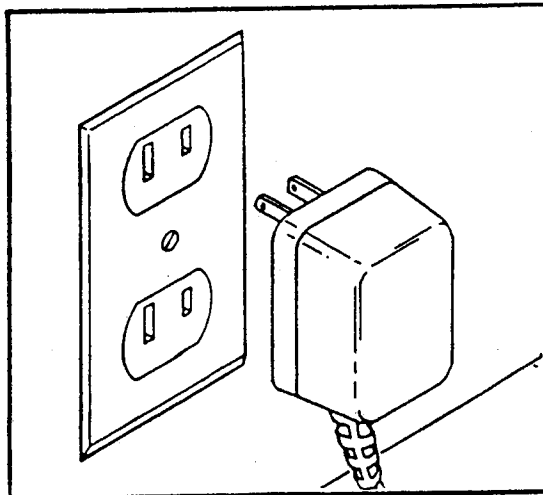


8. The Resistance Strap around the Fan has been tightened for shipping purposes (not shown). It may be necessary to loosen the Strap before using the exercise bike. See MAINTENANCE AND TROUBLE-SHOOTING on page 10 of this manual for Strap adjustment instructions.

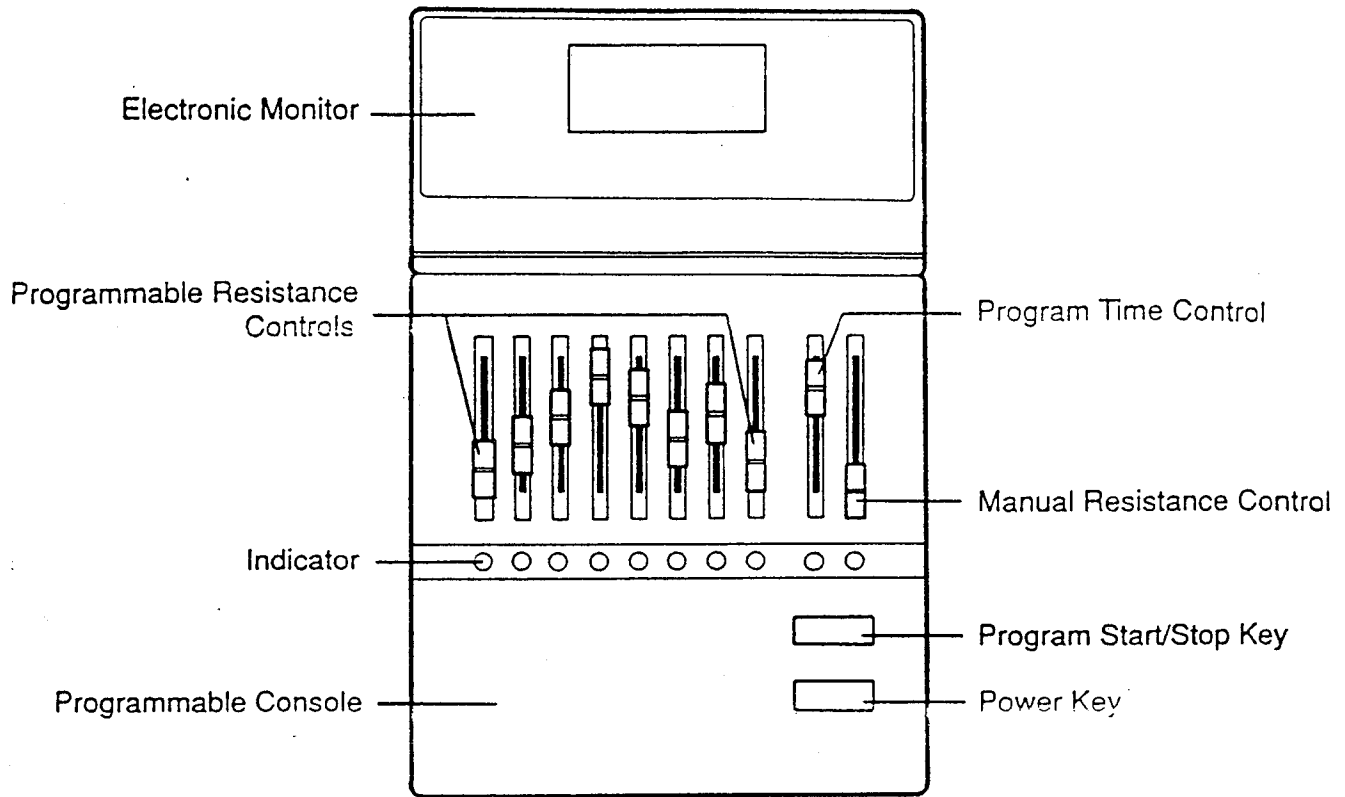
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## OPERATION AND ADJUSTMENT

Plug the transformer into a 120-volt outlet. Make sure the power cord is away from walkways or heated surfaces.



## PROGRAMMABLE CONSOLE DIAGRAM



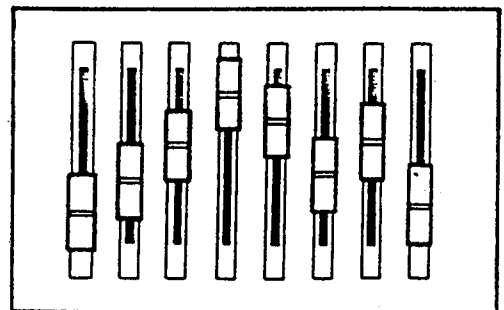
### MANUAL RESISTANCE MODE OPERATION

1. Before turning the power on, move the manual resistance control to the lowest position.
2. Turn the power on by pressing the power key.
3. As you pedal the bike, move the manual resistance control slowly up or down until the desired resistance level is reached.

### PROGRAMMABLE RESISTANCE MODE OPERATION

The programmable resistance mode allows you to create custom workout programs. Simply set the length of time that you plan to exercise, and program eight resistance settings. With the touch of a key, the equalizer computer takes over, controlling pedaling resistance automatically as you exercise.

1. Set the program time control for the length of time that you plan to exercise, from 5 to 40 minutes.
2. Set the eight programmable resistance controls to the desired resistance levels. The controls can be set in an infinite variety of ways. A sample program is shown at right. This program begins with low resistance to give you a good warm-up. Then the resistance increases gradually to simulate a challenging climb. Next, a decrease in resistance provides a period of rest before a final climb, and the program ends with a low resistance setting to allow you to cool down.



3. Press the program start/stop key and begin pedaling. The pedaling resistance will automatically adjust to the setting of the first programmable resistance control. After one-eighth of the total time set has elapsed, the resistance will adjust to the setting of the second control. The console will sequentially activate all eight controls. The indicators below the controls will show which control is currently active. When the total time has elapsed, the exercise bike will return to the manual mode and the indicator below the manual resistance control will light.

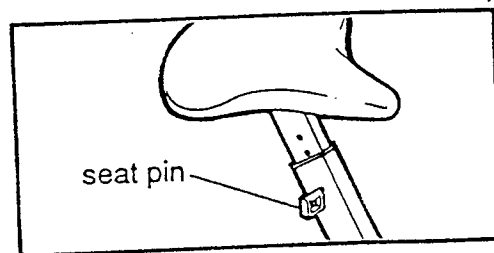
**Note:** The programmable resistance controls can be changed while the program is running if desired. To return to bike to the manual mode before the program has ended, simply press the program start/stop key.

## ELECTRONIC MONITOR OPERATION

See the Electronic Monitor Operation Guide accompanying this manual.

## SEAT ADJUSTMENT

Proper seat height is important for efficient exercise. As you pedal the bike, there should be a slight bend in your knees when the pedals are at the lowest position. To adjust the seat height: stand beside the bike, hold onto the seat and withdraw the seat pin. Raise or lower the seat, and reinsert the seat pin. **CAUTION:** Failure to fully insert the seat pin could result in injury.

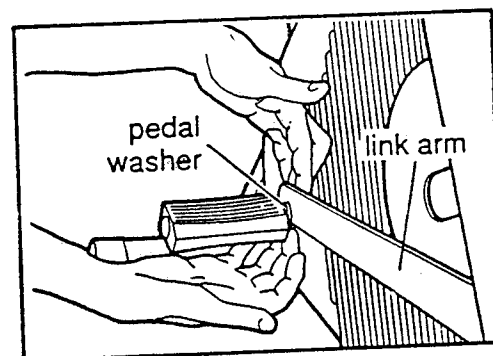


## HANDLEBAR OPERATION

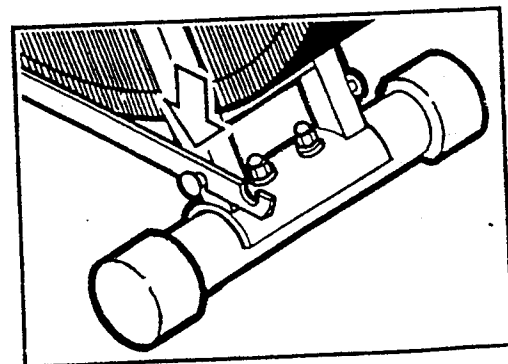
The handlebars are designed to be used either in a stationary position, for pedaling exercise only, or in a dual-action position, adding upper-body exercise to your workout.

### STATIONARY MODE

To convert the handlebars to the stationary mode, the link arms must be disconnected from the pedals. Pull the link arms outward against the pedal washers, while pulling against the bottom of the pedal washers with your fingers. Lift the link arms off the pedals.



Rotate the link arms up and forward, and clip the ends of the link arms onto the locking pegs on the bike frame. In the stationary mode, the muscles of the legs are emphasized.

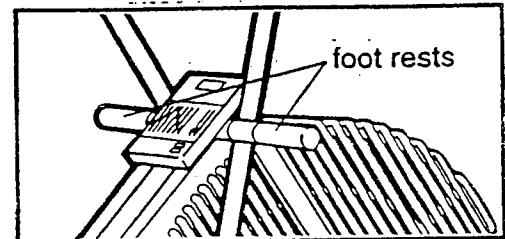
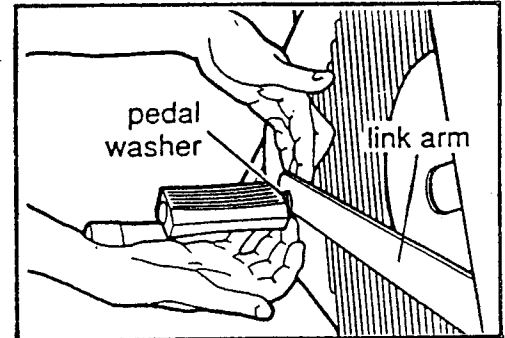
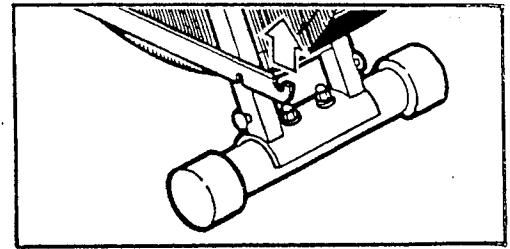


## DUAL-ACTION MODE

To convert the handlebars to the dual-action mode, first remove the link arms from the locking pegs on the frame. Rotate the link arms up and back until they reach the pedals.

Press the link arms outward against the pedal washers, while pulling against the bottom of the pedal washers with your fingers. Slide the link arms onto the pedal bushings. It may be helpful to move the link arms up and down slightly until they slide onto the bushings.

To isolate the muscles of the upper-body, you can rest your feet on the foot rests and exercise using only your arms.

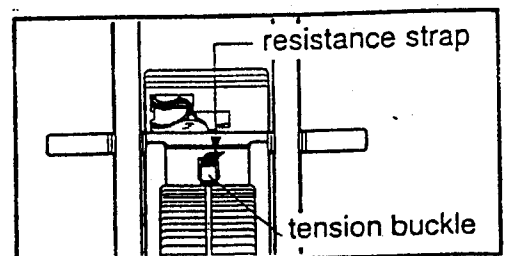


## MAINTENANCE AND TROUBLE-SHOOTING

This exercise bike is designed to be virtually maintenance-free. Be sure that all parts are kept tightened securely. A few drops of light multi-purpose oil should be applied to the chain every three months through the opening in the left side shield. Place the bike in a cool, dry location, out of direct sunlight. During periods of storage, it is recommended that the bike be covered.

If the electronic monitor appears to malfunction, the speed and power wires to the monitor should be checked. Slide the console plate off of the bike frame, and make sure that both wires are plugged fully into the back of the monitor. Replace the console plate on the bike frame.

If the range of pedaling resistance is too high or too low, it can be adjusted using the tension buckle located on the front of the bike frame above the fan guard. To raise the range of resistance, open the tension buckle, pull the resistance strap slightly tighter, and close the buckle. To lower the range of resistance, open the buckle, loosen the strap slightly, and close the buckle.



## TIGHTENING THE CHAIN

This exercise bike utilizes a high-precision chain which must be kept properly adjusted. If the chain is too loose, the fan may be damaged. If the chain is too tight, the bearings may be damaged. Check the chain periodically in the following manner.

1. Remove the right pedal assembly and the right side shield (see the exploded drawing).
2. Check the tightness of the chain. There should be almost no up and down movement in the chain.
3. If the chain is properly adjusted, reattach the right side shield and pedal assembly. If the chain requires adjustment, remove the fan shield from the front of the bike.
4. Locate the fan adjustment nut. If the chain is loose, turn the nut clockwise until the correct tension is reached. If the chain is too tight, turn the nut counterclockwise. Be sure the fan is aligned with the frame, and reattach the fan shield. Reattach the side shield and pedal assembly.

Always check the chain if it slips or causes excessive noise while pedaling. A few drops of light, multi-purpose oil should be applied to the chain every three months.

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## CONDITIONING GUIDELINES

The following guidelines will help you to plan and regulate your personal fitness program. Remember that adequate rest and good nutrition are also essential to the success of any fitness program. Before beginning this or any exercise program, consult your physician.

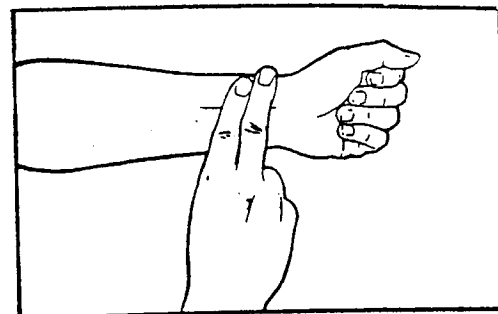
### EXERCISE INTENSITY

To maximize the benefits from exercising, your level of exertion must exceed mild demands while falling short of causing breathlessness and fatigue. The proper level of exertion can be determined using the heart rate as a guide. For effective aerobic exercise, the heart rate must be maintained at a level between 70% and 85% of your maximum heart rate. This is your "Training Zone." You can determine your Training Zone by consulting the table below. Training Zones are listed for both conditioned and unconditioned persons according to age. Use the column that is appropriate for you.

AGE	UNCONDITIONED TRAINING ZONE (BEATS/MIN)	CONDITIONED TRAINING ZONE (BEATS/MIN)	AGE	UNCONDITIONED TRAINING ZONE (BEATS/MIN)	CONDITIONED TRAINING ZONE (BEATS/MIN)
20	138-167	133-162	55	127-155	122-149
25	136-166	132-160	60	126-153	121-147
30	135-164	130-158	65	125-151	119-145
35	134-162	129-156	70	123-150	118-144
40	132-161	127-155	75	122-147	117-142
45	131-159	125-153	80	120-146	115-140
50	129-156	124-150	85	118-144	114-139

During the first few weeks of your exercise program, you should keep your heart rate near the low end of your Training Zone. Over the course of a few months, gradually increase your heart rate until it reaches the high end of your Training Zone. As your condition improves, a greater workload will be required in order to raise your heart rate to your Training Zone.

The easiest way to measure your heart rate is to stop exercising and place two fingers on your wrist where you feel a pulse. Carefully take a six-second heart beat count. (A six-second count is used because your heart rate will drop rapidly after you stop exercising.) Add a 0 to the result to find your heart rate. Compare your heart rate to your Training Zone. If your heart rate is too low, increase your level of exertion. If your heart rate is too high, decrease your level of exertion.



## WORKOUT PATTERN

Each workout should consist of the following 5 basic parts: 1. At rest, 2. Warming up, 3. Training Zone exercise, 4. Cooling down, 5. At rest.

Warming up is an important part of every workout. Warming up prepares the body for more strenuous exercise by increasing circulation, delivering more oxygen to the muscles, and raising the body temperature. This can be done by stretching for 5-10 minutes prior to exercising.

After warming up, begin exercising at a low intensity level for a few minutes. Then increase the intensity to raise your heart rate to your Training Zone for a period of 20-30 minutes.

Cooling down after vigorous exercise is important in aiding circulation and preventing soreness. 5-10 minutes of stretching or light exercise will allow the body to cool down.

## EXERCISE FREQUENCY

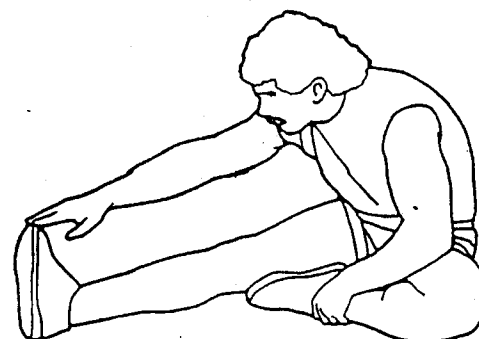
To maintain or improve your condition, you must work out 2-3 times per week following the pattern described above. A day of rest between workouts is recommended. After several months of exercise, the number of workouts can be increased to 4-5 per week. The key to a successful program is **REGULAR** exercise.

## SUGGESTED STRETCHES

The following stretches provide a good warm-up, or cool-down. Move slowly as you stretch - never bounce.

### HAMSTRING STRETCH

Sit with one leg extended. Bring the sole of the opposite foot toward you, resting it against the extended leg's inner thigh. Stretch toward your toe as far as possible, hold for 15 counts, then relax. Repeat three times for both legs.



## INNER THIGH STRETCH

Sit with the soles of your feet together and knees outward. Pull your feet as close into the groin area as possible. Hold for 15 counts, then relax. Repeat three times.

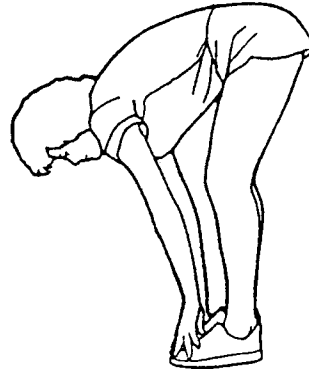
Stretches: Quadriceps, hip muscles.



## TOE TOUCHES

Standing with your knees bent slightly, slowly bend forward from the hips. Allow your shoulders to relax as you stretch down toward your toes. Go as far as you can and hold for 15 counts, then relax. Repeat three times.

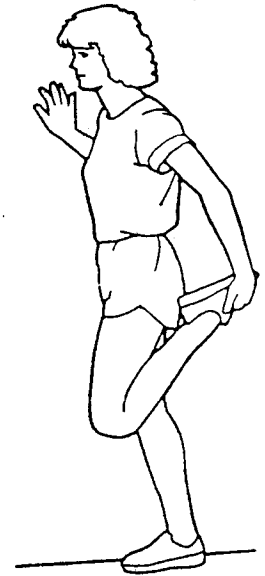
Stretches: Hamstrings, back of knees, back.



## QUADRICEPS STRETCH

With one hand against a wall for balance, reach behind you and grasp your foot. Bring your heel as close to your buttocks as possible. Hold for 15 counts, then relax. Repeat three times for both legs.

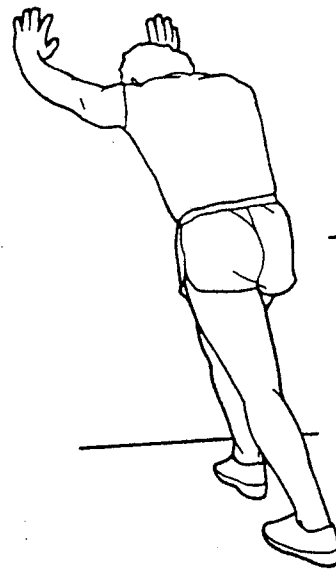
Stretches: Quadriceps, hip muscles.



## CALF/ACHILLES STRETCH

With one leg in front of the other, and arms forward, lean against a wall. Keep your back leg straight and back foot flat on the floor. Bend your front leg and lean forward, moving your hips toward the wall. Hold for 15 counts, then repeat on the other side. To cause further stretching of the achilles tendons, bend back leg as well.

Stretches: Calves, achilles tendons, and ankles.



# PART LIST - MODEL NO. 831.287450

Rev. 4/91

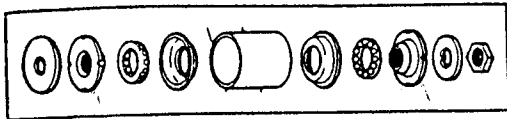
Key No.	Reorder No.	Qty.	Description	Key No.	Reorder No.	Qty.	Description
1	103937	1	Seat Post	36	NSP	1	Frame
2	012002	4	Seat Nut	37	101040	1	Power Plug
3	103900	1	Seat	38	102963	2	Tension Motor Screw
4	102040	1	Seat Post Sleeve	39	050001	1	Tension Buckle
5	102638	4	Handlebar Endcap	40	013572	1	Tension Buckle Screw
6	100306	2	Foam Grip	41	101494	2	Link Arm Washer
7	013534	5	Plate Screw	42	101036	2	Link Arm Bushing
8	101017	1	Console Plate	43	101030	2	Link Arm w/Pin
9	102408	1	Programmable Console	44	013088	10	Fan Shield Screw
10	103097	1	Electronic Monitor	45	008279	1	Fan Shield Bracket
11	012147	1	Thin Axle Nut	46	015044	2	Cotter Pin
12	049107	1	Axle Shaft	47	012006	1	Adjustment Nut
13	021053	1	Fan w/Sprocket	48	014003	1	Adjustment Washer
14	100544	1	Left Side Shield	49	013568	1	Adjustment Bolt
15	013571	2	Side Shield Screw	50	100904	2	Shaft Nut
16	018007	2	Bearing	51	054035	4	Fan Shield Clip
17	103008	1	Axle Spacer	52	012001	4	Acorn Nut
18	017094	10	Console Knob	53	100298	1	Seat Pin
19	040158	2	Pedal Cap	54	010199	2	Fan Shield
20	012002	2	Pedal Nut	55	102637	4	Stabilizer Cap
21	014041	8	Washer	56	013164	4	Carriage Bolt
22	100906	2	Pedal	57	100288	2	Stabilizer
23	100905	2	Pedal Shaft	58	100545	1	Right Side Shield
24	101459	2	Shaft Washer	59	101042	1	Tension Rope
25	100929	2	Pedal Spring	60	025071	1	Chain
26	101460	2	Pedal Washer	61	070902	1	Crank/Sprocket Assembly
27	100303	1	Left Handlebar	62	101043	1	Resistance Strap
28	103654	6	Pivot Bushing	63	102037	1	Spring Assembly
29	103703	2	Foot Rest	64	100498	3	Sensor Magnet
30	012150	3	Axle Nut	65	102964	3	Power Plug Screw
31	014012	4	Axle Washer	66	101067	1	Power Cord
32	103548	1	Pivot Shaft	#	101839	1	Owner's Manual
33	103180	1	Tension Motor Assy.	#	101044	1	Monitor Operation Guide
34	033184	1	Sensor Wire/Reed Switch				
35	100299	1	Right Handlebar				

Note: "#" indicates a non-illustrated part. Specifications are subject to change without notice. See the back cover for information on ordering replacement parts.

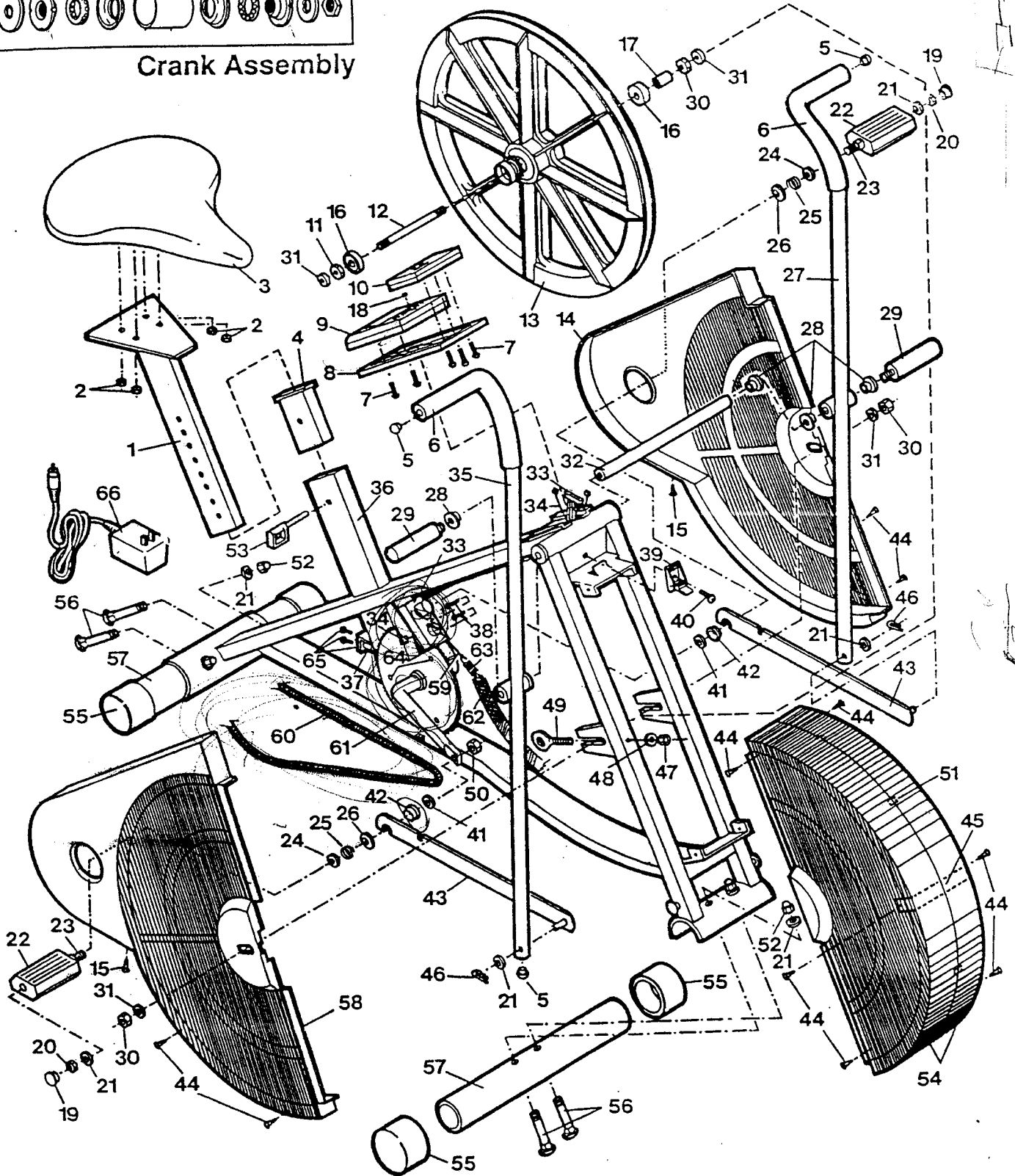
# EXPLODED DRAWING - MODEL NO. 831.287450

Rev. 4/91

Specifications are subject to change without notice.



Crank Assembly



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## ORDERING REPLACEMENT PARTS

Each EXERCISE BIKE has its own MODEL NUMBER. Always mention this MODEL NUMBER when requesting service or repair parts for your EXERCISE BIKE.

All parts listed herein may be ordered through SEARS, ROEBUCK AND CO. SERVICE CENTERS and most SEARS RETAIL STORES.

If parts you need are not stocked locally, your order will be electronically transmitted to a SEARS PARTS DISTRIBUTION CENTER for expedited handling.

WHEN ORDERING REPAIR PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:

1. The MODEL NUMBER of the product (831.287450).
2. The NAME of the product (Pro Form Air Cycle Programmable Resistance Fitness Trainer).
3. The REORDER NUMBER of the part(s), from page 14 of this manual.
4. The DESCRIPTION of the part(s), from page 14 of this manual.

Your Sears merchandise has added value when you consider that Sears has service units nationwide staffed with Sears trained technicians specifically trained on Sears products, having the parts, tools and the equipment to insure that we meet our pledge to you: we service what we sell.

# ELECTRONIC MONITOR OPERATION GUIDE

Your exercise bike features a microprocessor-based monitor, designed to give you continuous exercise feedback as you work out. Please read the instructions below carefully before using the monitor. Save this guide for future reference.

## MONITOR MODES

**SPEED-** Displays your pedaling speed in miles per hour.

**TIME-** Displays the elapsed time you have exercised.

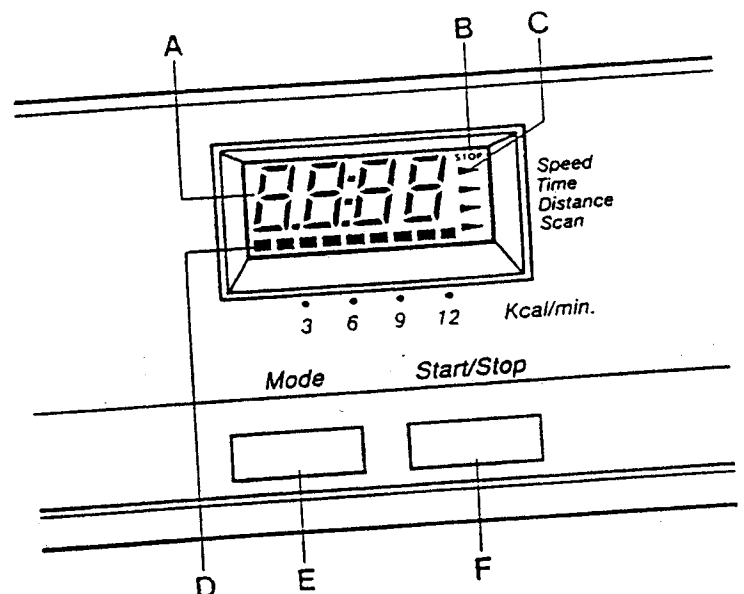
**DISTANCE-** Displays the distance you have pedaled in miles.

**SCAN-** Displays the SPEED, TIME, and DISTANCE modes in a repeating cycle.

**CALORIE-** Displays the approximate number of nutritional Calories (kilocalories or kcals) you are burning per minute.

## MONITOR DIAGRAM

- A. Main display- Displays data for the SPEED, TIME and DISTANCE modes.
- B. Stop indicator- Indicates whether the TIME mode is stopped or started.
- C. Mode arrows- Indicate the mode(s) currently displayed.
- D. CALORIE mode display.
- E. Mode key- Selects modes for display.
- F. Start/Stop key- Starts and stops the TIME mode.



## OPERATING THE MONITOR

1. The power cord must be plugged in before the monitor can be operated (see the GROUNDING INSTRUCTIONS on page 7 of the owner's manual). Press the Power key, located on the programmable console, to turn the power on.

2. Select the mode desired in the following manner:

**SCAN-** After the monitor is turned on, an arrow will point to the word "Scan". The SPEED, TIME and DISTANCE modes will be displayed, for about 5 seconds each, in a repeating cycle. A second arrow will show which mode is currently displayed. Press the Start/Stop key to start or stop the TIME mode.

**SPEED, TIME or DISTANCE-** While the SCAN mode is operating (see above), a single mode can be selected for continuous display. Simply wait until the desired mode is displayed, and then press the Mode key. The SCAN mode will be cancelled, and the selected mode will be displayed continuously. The SPEED, TIME, DISTANCE and SCAN modes can also be selected by repeatedly pressing the Mode key.

**CALORIE-** The CALORIE mode operates whenever the pedals are turned. The numbers beneath the display show the number of Calories you are burning per minute. (To calculate the total number of Calories burned during your workout, simply multiply the number of Calories burned per minute by the number of minutes you have exercised. For example, if you are burning 6 Calories per minute, and you have exercised for 20 minutes, you have burned a total of 120 Calories.) Note: Numbers are based on a moderate pedaling resistance level. If you set the resistance level very high or low, the actual number of Calories burned will be slightly higher or lower than the number shown.

3. While the TIME or DISTANCE modes are displayed, the display can be reset to zero by pressing the Mode key and Start/Stop key at the same time. The TIME mode will be stopped after the display is reset.
4. To turn the monitor off, press the Power key.

#### MONITOR CARE

Keep the monitor out of direct sunlight or the display may be damaged. Do not allow liquids to come in contact with the monitor. The monitor can be wiped clean using a soft, dry cloth.

If the monitor does not function properly, the power and speed wires to the monitor should be checked. Turn the power off and slide the console plate off of the bracket on the frame. Make sure the power and speed wires are plugged fully into the monitor. If the monitor still fails to function properly, call the toll-free number listed on page 4 of the owner's manual. The bike can be used with the monitor removed, if necessary.

