

Owner's Manual & Assembly

# 400 SERIES

400Ub | 400Rb



## Purchaser's Reference Information

IT IS IMPERATIVE THAT YOU FILL IN THE FOLLOWING INFORMATION AND REFER TO IT SHOULD THE NEED FOR SERVICE ARISE.

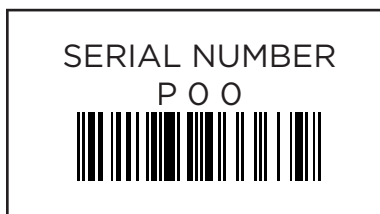
Product Name: Diamondback 400 Series (Upright <or> Recumbent)

Serial Number: P \_ \_ \_ \_ \_ \_ \_ \_ \_ \_

### To Activate Warranty:

COMPLETELY FILL OUT THE ATTACHED WARRANTY CARD (SEE BACK COVER) AND RETURN TO DIAMONDBACK FITNESS WITHIN 15 DAYS OF THE DATE OF PURCHASE. FAILURE TO COMPLY WITH THE WARRANTY ACTIVATION PROCEDURE MAY VOID THE MANUFACTURER'S WARRANTY.

### Serial Number Location

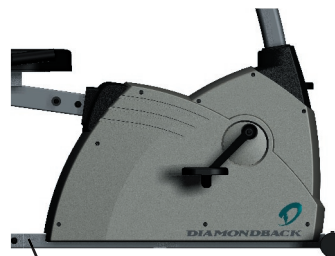


400Ub Upright

400Rb Recumbent



Serial No. Sticker



Serial No. Sticker

Dealer Name: \_\_\_\_\_

Dealer Address: \_\_\_\_\_

Dealer Phone Number: (      ) \_\_\_\_\_

Dealer Contact Name: \_\_\_\_\_

Date Purchased: \_\_\_\_\_

### Shipping Materials

Diamondback Fitness recommends that you retain the original packing materials (box and packing items) for future shipping needs.

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**400**  
series

# Introduction

Thank you for selecting **Diamondback Fitness** as your brand choice for the 400 Series cardiovascular equipment. You have made a positive step toward adding the convenience of working out at home at a feature-packed price.

The quality of your workout will be greatly improved with:

- A highly-featured, consumer friendly console.
- The Electronically Controlled Brake (ECB) system.
- The contact heart rate sensors and telemetry heart rate receiver.
- A Comfort Plus® adjustable seat.

It took a company like **Diamondback Fitness** to create such a hard working, easy-on-your-wallet line. We've been one of the premiere names in mountain and racing bikes for over two decades. And now, with industry firsts like our Heart Rate Control System, we're a leading contender in the fitness arena, as well.

2

Whether you are just starting an exercise program, or maintaining, **Diamondback Fitness** has equipment to fit your needs. Please feel free to check out our consumer web site at [www.diamondbackfitness.com](http://www.diamondbackfitness.com) to learn more about our additional product offerings.

**Remember to start your exercise efforts slow, with intensity low, until you build endurance and strength. Always consult your physician before beginning any exercise program.**

# Safety Instructions & Warnings

The 400 series is built for optimum safety and is designed to meet or exceed all domestic and international standards. However, certain precautions need to be followed when operating any exercise equipment.

## BE SURE TO READ THE ENTIRE OWNER'S MANUAL BEFORE OPERATING YOUR 400 SERIES UNIT.

**PLEASE REMEMBER:** Your 400 Series unit is powered by 4, D cell, batteries. If your console becomes dim or does not power up, please replace all 4 of the batteries with new D cell batteries.

### CAUTION - FOR SAFE OPERATION

1. Before beginning any exercise program on the 400 series equipment, it is important to consult with your physician if you have any of the following: History of heart disease, high blood pressure, diabetes, chronic respiratory diseases, elevated cholesterol, or if you smoke cigarettes or experience any other chronic diseases or physical complaints.
2. If over the age of 35 or overweight, consult with your physician before beginning any exercise program.
3. Pregnant women should consult with their physician before beginning an exercise program.
4. If you experience dizziness, nausea, chest pains or other abnormal symptoms during exercise, stop the exercise session immediately. Consult your physician before continue your exercise.
5. Drink fluids if you exercise for twenty or more minutes on any 400 series unit.
3. User weight is not to exceed 275 pounds/ 125 kilograms.
4. Keep children away from 400 series equipment. Hands and feet may get caught in the pedals or other moving parts which could result in serious injury.
5. Place the 400 series unit in an area that will meet minimum clearance requirements: *Front, Back & Sides: 2 feet/60cm*
6. Keep 400 Series equipment away from walls to allow proper ventilation. Air should be able to circulate freely around the units. Keep all air openings free of dirt and dust. Never insert anything into openings.
7. The 400 series is intended for indoor use in the home environment. It is not intended for outdoor use.
8. Place your 400 series unit on a solid, level surface when in use.
9. Use the handlebars or handrails when getting on and off your 400 series unit.
10. Never operate the unit if it is damaged or broken. Contact your local authorized Diamondback fitness dealer for service. Make sure all components are fastened securely (i.e. seat post, saddle, handlebars, pedals) at all times.

### WARNING - TO REDUCE RISK OF INJURY TO YOURSELF OR OTHERS

1. To ensure proper functioning of your 400 series equipment, do not install attachments or accessories not provided or recommended by Diamondback.
2. Always wear proper clothing and shoes when exercising on any 400 series unit.



## THE NEXT STEP

*The fitness experts at Diamondback believe that*

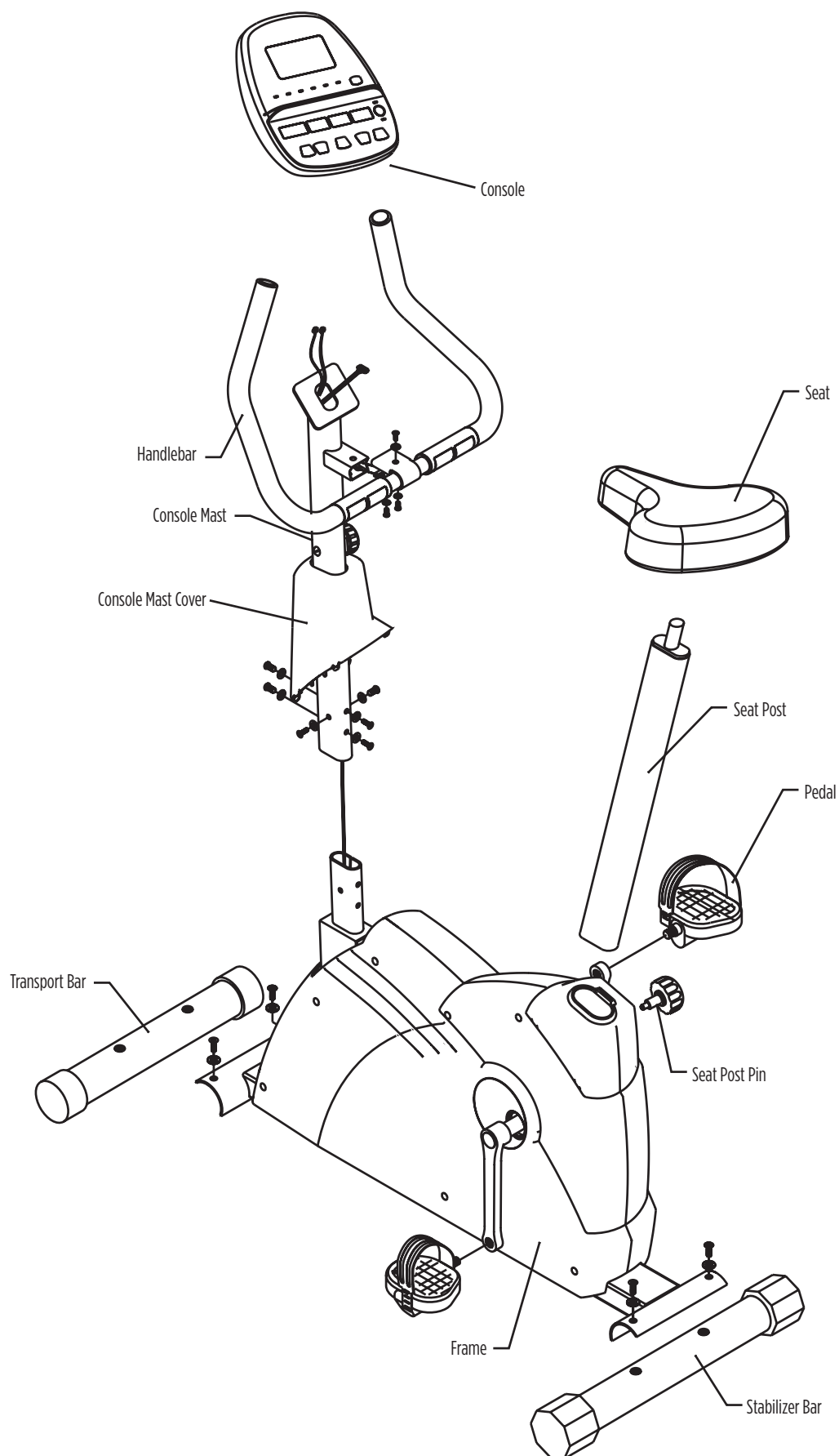
## IN WORKOUT

*working out is not just for athletes but for all people.*

## TECHNOLOGY.

**SAVE THIS OPERATING INSTRUCTIONS MANUAL**

# 400Ub Assembly Drawing





## REACH YOUR FITNESS

The fitness experts at Diamondback believe that

## GOALS WITH

working out is not just for athletes but for all people.

## GREATER SPEED.

### Frame and Seat Assemblies

1. Place the unit and all accompanying parts in a clean, flat, and open space.
2. Attach the Transport Bar to the Front of the Frame using two M10 x 20mm bolts.
3. Attach the Stabilizer Bar to the rear of the Frame using two M10 x 20mm bolts.
4. Loosen the seat pin by turning it counter clockwise 1-2 turns. Install seatpost by sliding into the seatpost receptor, pulling the seat pin out until a suitable hole is found.  
**WARNING:** Never mount the cycle unless the seat pin is fully & properly engaged in the seat post.
5. Place the Seat on the rod at the top of the Seat Post. Adjust the seat so that it is flat and pointing forward and then tighten the nuts on the Seat's bottom simultaneously using two wrenches.

### Console Mast Assembly

1. Hold up the Console Mast with the tube end facing down and slide the Console Mast Cover onto it as far as possible, with the tabs facing down.
2. Hold the Console Mast next to its mounting post on the front of the Frame. Feed the wire harness through the Console Mast so that it is attached on the Frame end and the other end comes out the top of the Mast.
3. Slide the Mast onto the mounting post.  
**Be careful not to pinch the wire while doing this, doing so could cause the unit to malfunction.** Attach the Mast to the mounting post using five M8 x 15mm bolts and five M8 washers. Carefully snap the Console Mast Cover into place on the Frame.

4. Align the Handlebar with its post near the top of the Console Mast so that only one bolt hole is facing upward. Feed the wires from the Handlebar up through the top of the Console Mast. Slide the handlebar onto the Console Mast while pulling gently on the wires to take up the slack. Attach the Handlebar to the Console Mast using three M8 x 15mm bolts and three M8 flat washers.

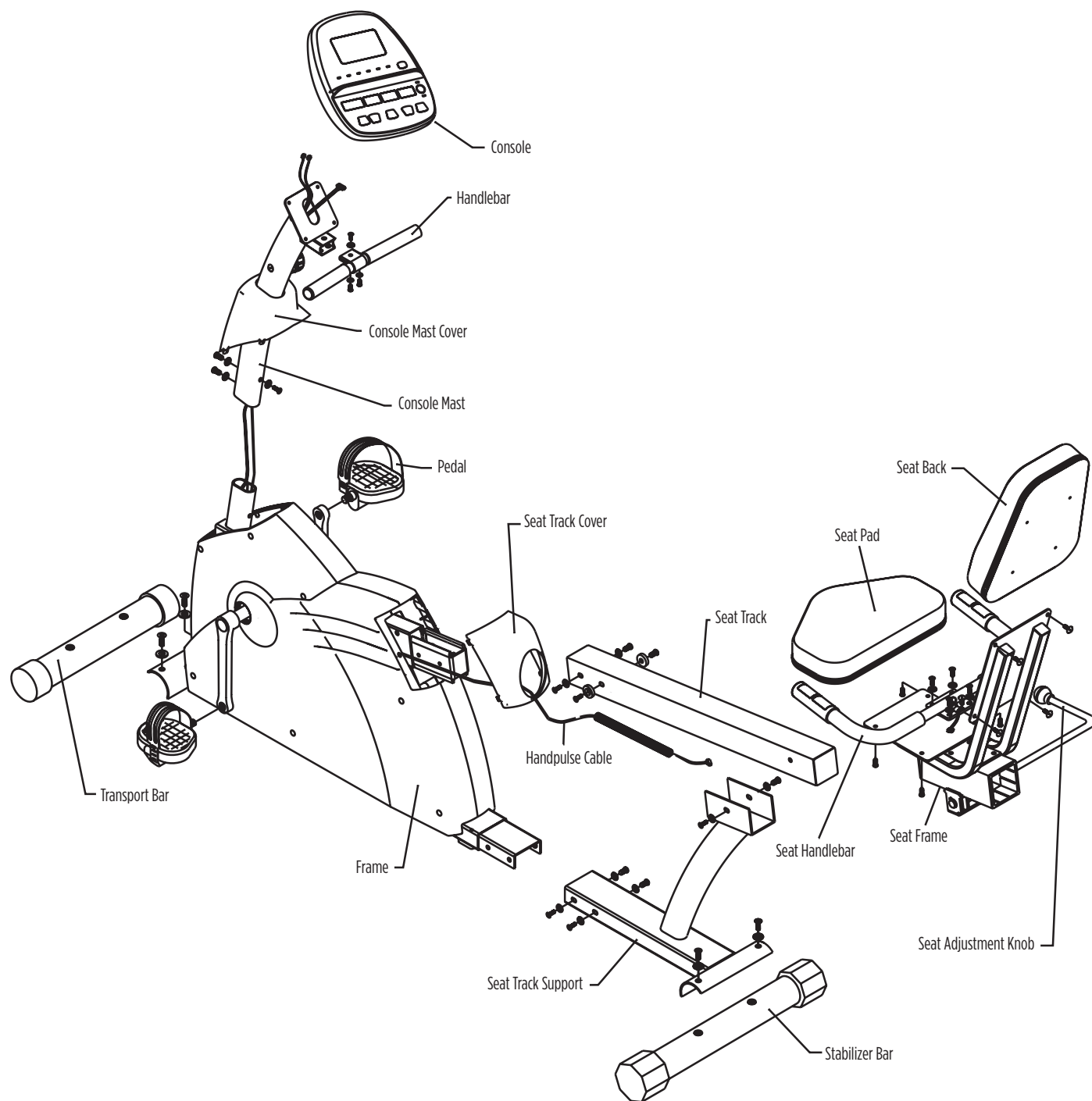
### Console Assembly

1. Hold the Console up to the top of the Console Mast and attach the wires from the top of the Mast to the back of the Console. Carefully feed the slack in the wires into the Console Mast, and then place the Console on the mounting plate at the top of the Console Mast. **Be careful not to pinch the wires while doing this, doing so may cause the unit to operate incorrectly.**
2. Once the Console is in place on the Mast, fasten it down using four M5 x 12mm bolts and four M5 washers.

### Pedal Assembly

1. Use a 15mm open-end wrench to firmly affix the pedals to the cranks.
2. The left and right pedals are different and are denoted as right or left (R or L) on the top and bottom of each pedal. **Please NOTE:** The *Left pedal* threads *counterclockwise*.
3. Retighten the cranks after approximately 10 hours of use.

# 400Rb Assembly Drawing





# 400Rb Assembly Instructions

## Frame and Seat Assemblies

1. Place the unit and all accompanying parts in a clean, flat, and open space.
2. Attach the Transport Bar to the front of the Frame using two M10 x 20mm bolts.
3. Slide the Seat Track Support onto the lower bar of the Frame and bolt it in place using four M8 x 15mm bolts and four M8 washers.
4. Attach the Stabilizer Bar to the rear of the Seat Track Support using two M10 x 20mm bolts.
5. Hold the Seat Track up to the frame horizontally with the bolt holes facing to the sides. Slide the Seat Track Cover and the Seat Frame onto the middle of the Seat Track, checking to make sure they are oriented right side up and facing the correct direction.
6. Slide the front of the Seat Track onto the upper bar of the Frame, while placing the rear end of the Seat Track into the upper arm of the Seat Track Support. Attach the Seat Track to the Frame using four M8 x 15mm bolts, with two M8 washers on the front holes and two rubber stops on the rear holes. Attach the Seat Track to the Seat Track Support using two M8 x 15mm bolts and two M8 washers.
7. Slide the Seat Track Cover along the Track to the Frame, and then thread the Hand Pulse Cable through the Cover. Snap the Seat Track Cover into place on the Frame by squeezing gently along the sides, then press in first the top two tabs and next the bottom two tabs.
8. Place the Seat Handlebar on the Seat Frame with the metal pulse grips facing upward and the handles facing forward. Attach it in place using four M8 x 10mm bolts and four M8 washers.
9. Place the Seat Pad on the Seat Frame with the wide end at the back and attach it using four M6 x 45mm bolts. Hold the Seat Back against the Seat Frame with the wide end down and attach it in place using four M6 x 45mm bolts.
10. Stretch the free end of the Hand Pulse Cable along the Seat Track to the back of the Seat and plug it into the wires from the Seat Handlebar. Align the Cable so that it will not be pinched by the Seat, test by moving the Seat back and forth, and then use the plastic zip tie provided to hold the wire against the Seat in this safe position.

## Console Mast Assembly

1. Hold up the Console Mast with the tube end facing down and slide the Console Mast Cover onto it as far as possible, with the tabs facing down.



**YOU'LL BE VERY**

The fitness experts at Diamondback believe that

**COMFORTABLE WITH**

working out is not just for athletes but for all people.

**OUR AEROBIC BENEFITS.**

2. Hold the Console Mast next to its mounting post on the front of the Frame. Feed the wire harness through the Console Mast so that it is attached on the Frame end and the other end comes out the top of the Mast.
3. Slide the Mast onto the mounting post.  
**Be careful not to pinch the wires while doing this, doing so could cause the unit to malfunction.** Attach the Mast to the mounting post using three M8 x 15mm bolts and three M8 arc washers (bent). Carefully snap the Console Mast Cover into place on the Frame.
4. Align the Handlebar with its post near the top of the Console Mast so that only one bolt hole is facing upward. Slide the handlebar onto the Mast and attach it using three M8 x 15mm bolts and three M8 flat washers.

## Console Assembly

1. Hold the Console up to the top of the Console Mast and attach the wires from the top of the Mast to the back of the Console. Carefully feed the slack in the wires into the Console Mast, and then place the Console on the mounting plate at the top of the Console Mast. **Be careful not to pinch the wires while doing this, doing so may cause the unit to operate incorrectly.**
2. Once the Console is in place on the Mast, fasten it down using four M5 x 12mm bolts and four M5 washers.

## Pedal Assembly

1. Use a 15mm open-end wrench to firmly affix the pedals to the cranks.
2. The left and right pedals are different and are denoted as right or left (R or L) on the top and bottom of each pedal. **Please NOTE:** The *Left pedal* threads *counterclockwise*.
3. Retighten the cranks after approximately 10 hours of use.

# 400 Series Operation & Comfort Tips

## Operation and Comfort Tips

1. **Cadence:** There is a strong relationship between cadence (revolutions per minute of the pedals <RPM>) and the efficiency of your workouts. Research indicates that you will be more comfortable and get a lot more work done if you maintain a cadence of at least 60 RPM. The current RPM can be displayed in the third data display window at any time.
2. **Proper adjustment of the seat position** and knowledge of pedaling cadence will allow effective use of your leg muscles without producing undue muscular fatigue. Applying these proper techniques will allow you to ride comfortable and efficiently. These biomechanically designed stationary cycles are fully adjustable to optimize comfort.
3. **Choosing the Proper Leg Extension:** The seat should be positioned such that the leg is almost fully extended when the ball of the foot is on the pedal and the pedal is in the position furthest from the body. This will allow for greater use of more leg muscles, thereby maximizing cardiovascular benefit while minimizing fatigue.
4. **Foot Position on the Pedal:** The ball of the foot should be on the pedal, directly over the pedal axle. This position allows you to maximize the action of your calf muscles. Avoid pedaling with the arch of your foot on the pedal. If straps are attached to the pedals, use them to stabilize your foot on the pedals but do not use them if they place your foot in an unnatural or uncomfortable position.
5. **400 Upright Saddle Adjustment:** The 400 Upright uses a spring loaded pin that engages holes on the seat post to hold the seat post in place. To adjust the height of the saddle, unscrew the knob on the seat pin counterclockwise one turn and the pull the knob out. Adjust the seat post height as desired, lining the seat pin up with the desired hole on the seat post, then release the knob so that pin seats in the hole. Lastly, re-tighten the knob on the seat pin.
6. **400 Recumbent Seat Adjustment:** The 400 Recumbent uses a friction lock to hold the seat in place. To unlock the seat, pull up on the knob at the side of the seat. Slide the seat to the desired position and then push down on the knob to lock the seat in place.

**PLEASE REMEMBER:** Your 400 Series unit is powered by 4, D cell, batteries. If your console becomes dim or does not power up, please replace all 4 of the batteries with new D cell batteries.

## Good health is an exercise in common sense

The Surgeon General released a new study in 2001, The Surgeon General's Call To Action To Prevent and Decrease Overweight and Obesity. It indicates that 61% of American adults are either overweight or obese. The study states that overweight increases the risk of health problems, such as heart disease, certain type of cancer, type 2 diabetes, etc. It further points out that overweight needs to be regarded primarily as a Health rather than as an Appearance issue.

The Surgeon General's Healthy weight advice for consumers is:

1. Aim for a healthy weight: Find your Body Mass Index (BMI) on the chart below.
2. Be active: Keep physically active to balance the calories you consume.
3. Eat well: Select sensible portion sizes.

## Heart rate is an important key to your exercise.

The Surgeon General also released a report on physical activity and health. This report definitively stated that exercise and fitness are beneficial for a person's health and redefined that exercise is a key component of disease prevention and healthier living.

Medical research has shown us that there is an amount of exercise, which is enough to condition the cardio respiratory system and the muscles of the body. This amount of exercise is between 60% and 85% of your maximum heart rate measured during a training session. This range allows enough exercise to achieve fitness, but not an excessive amount to

cause injury. Your heart rate is an excellent indicator of the amount of stress placed on the cardiovascular system. Taking full advantage of this information, the 800 Series products are designed to include heart rate monitoring features.

If exercise intensity is too low or too high, no gains will be made in fitness. If the intensity is too low, the stress levels are ineffective. If the intensity is too high, injury or fatigue may set your exercise program back as you try to recover.

The best way to monitor exercise intensity is to accurately count your pulse during exercise. Your heart rate can easily be determined by counting your pulse at the chest, wrist or at the carotid artery on your neck. It is difficult to count your own pulse during exercise, mainly because you cannot count fast enough to get an accurate number. The 800 Series products are equipped with a wireless telemetry receiving system. What it does is automatically count your heart rate while you are wearing a heart rate chest belt during your exercising period. Heart rate is monitored and electronically displayed as a digital readout. Your target heart rate, the intensity needed to improve cardiovascular fitness, depends primarily on your age and not your state of fitness. It is calculated as a percentage of your maximum heart rate, estimated as 220 minus your age. It is most effective to train at your target heart rate between 60% and 85% of your maximum heart rate.

$$BMI = \left( \frac{Weight(lb)}{Height^2(in)} \right) * 703$$

		Weight in Pounds													
		120	130	140	150	160	170	180	190	200	210	220	230	240	250
Height in Feet & Inches	4'6"	29	31	34	36	39	41	43	46	48	51	53	56	58	60
	4'8"	27	29	31	34	36	38	40	43	45	47	49	52	54	56
	4'10"	25	27	29	31	34	36	38	40	42	44	46	48	50	52
	5'0"	23	25	27	29	31	33	35	37	39	41	43	45	47	49
	5'2"	22	24	26	27	29	31	33	35	37	38	40	42	44	46
	5'4"	21	22	24	26	28	29	31	33	34	36	38	40	41	43
	5'6"	19	21	23	24	26	27	29	31	32	34	36	37	39	40
	5'8"	18	20	21	23	24	26	27	29	30	32	34	35	37	38
	5'10"	17	19	20	22	23	24	26	27	29	30	32	33	35	36
	6'0"	16	18	19	20	22	23	24	26	27	28	30	31	33	34
	6'2"	15	17	18	19	21	22	23	24	26	27	28	30	31	32
	6'4"	15	16	17	18	20	21	22	23	24	26	27	28	29	30
	6'6"	14	15	16	17	19	20	21	22	23	24	25	27	28	29
	6'8"	13	14	15	17	18	19	20	21	22	23	24	25	26	28

Healthy Weight
  Overweight
  Obese

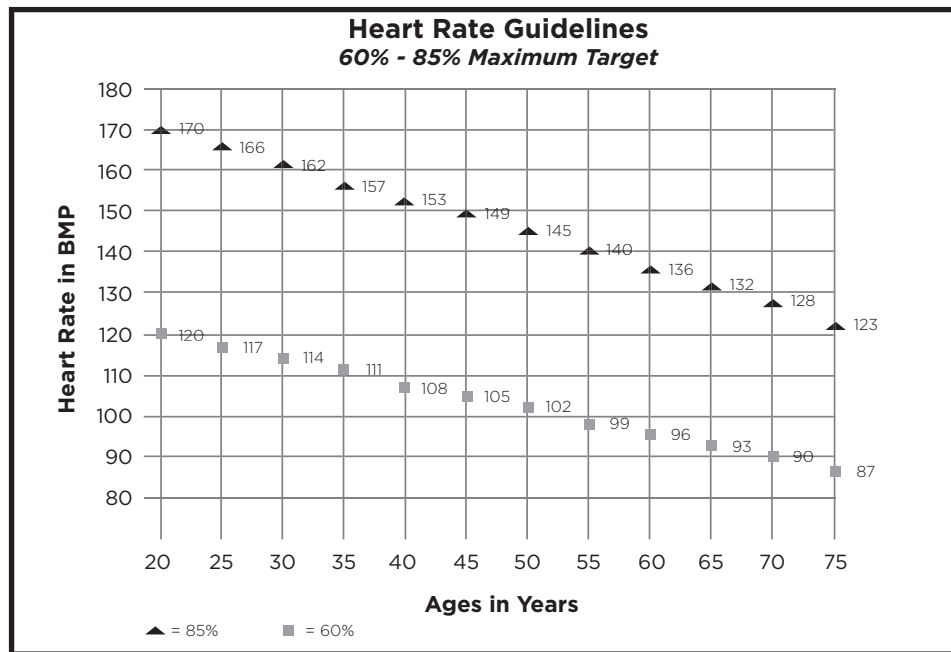
NOTE: This chart is for adults (aged 20 years and older).

# Workout Guidelines

## Maximum Heart Rate & Training Zone

To calculate your maximum heart rate and find your training zone, use the following formula. An example has been provided below based on a 35-year-old person:

220 - Age = Maximum Heart Rate    (220 - 35 = 185)  
60% of Maximum Heart Rate        (60% x 185 = 111bpm)  
85% of Maximum Heart Rate        (85% x 185 = 157bpm)  
Training Zone:                            111bpm - 157bpm



10

## Quantity & Quality

It is recommended that you accumulate at least 30 minutes of physical activity most days of the week. Physical activity should be initiated slowly and the intensity should be increased gradually. You should select activities that you enjoy and can fit into your daily life. Having Diamondback equipment at home certainly gives you the comfortable and convenient workout you want.

The American College of Sports Medicine makes the following recommendations for the quantity and quality of training for developing and maintaining cardio respiratory fitness in healthy adults:

- An activity that uses large muscle groups, maintained continuously, and is rhythmical and aerobic in nature.
- Duration: 20 to 60 minutes of continuous aerobic activity, including a warm-up and cool-down period for each exercise session.
- Frequency: 3 to 5 times per week.
- Intensity: 60% to 85% of maximum heart rate.
- In addition to aerobic exercise, it is recommended that you add strength training of moderate intensity twice per week to your program.

## Get a smart start on exercising.

Anyone over the age of 35, as well as younger persons whom are overweight, should check with his/her physician before beginning any type of exercise program. People who have diabetes or high blood pressure, a family history of heart disease, high cholesterol or have lead a sedentary lifestyle should protect themselves with a medical check-up and a stress test, preferably administered during exercise by a healthcare professional.

1. Always stretch before your workout to loosen muscles, and afterwards to cool down.
2. The first few minutes of your workout should be devoted to warming up muscles before a vigorous workout, and building your heart rate slowly.
3. After your aerobic workout of about 24-32 minutes, spend 10 minutes gradually reducing your heart rate with a lower resistance level.

**Remember, to start slow, with intensity low, until you build endurance and strength. And always consult your physician before beginning any exercise program.**

## Pulse Hand Grips (Standard)

The 400 Series products come standard with stainless steel pulse handgrips. To activate, gently grasp both handgrips to obtain a heart rate reading.

*(Note: It is recommended to wear a chest strap for the Heart Rate control program, as it is more accurate. If you wear a chest strap and use hand grips at the same time for heart rate monitoring purpose, please note the console will read the measurement of the chest strap.)*

### Operating Tips:

If you are not getting a consistent reading while using the hand pulse option, we recommend the following suggestions:

- Make sure that the palms of the hands are touching the contact area of each hand pulse grip.
- Maintain an even pressure on the grips.
- Do not hold the hand pulse grips too tightly.

## Chest Strap (Optional)

The 400 Series products are equipped with a built-in receiver for heart rate monitoring. To utilize this receiver you will need to wear a heart rate monitoring chest strap which is non-coded and Polar® compatible. To get an accurate reading using these devices, you will need to be within three feet of the console, and a minimum of four feet from others using a heart rate monitoring device.

*(Note: The transmitter may fluctuate erratically if you are too close to other heart rate monitoring equipment or there is other electronics near by, such as TV, Radio...)*

The receiver of the wireless ECG system is built into the console unit of the Diamondback Fitness 400 Series products. While using heart rate control modes, the computer monitors the exact measurement of and control over the activity if the heart. Heart rate frequency is displayed while the computer continually compares heart rate to the preprogrammed personal data. The computer adjusts the resistance to maintain heart rate at the preprogrammed level.

### How to Wear Your Sensor/ Transmitter

1. Buckle one end of the chest strap onto the transmitter.
2. Adjust the band length so that the fit is snug, but not too tight.
3. Buckle the other end of the chest strap onto the transmitter.
4. Center the transmitter on your chest below the pectoral muscle (breasts).
5. Stretch the transmitter away from your chest and moisten the conductive electrode strips located next to the buckles with water.

*(Note: The transmitter is automatically on when being worn. It is off when it is not connected to your body. However, as moisture may activate the transmitter, thoroughly dry the transmitter to prolong battery life.)*

# 400 Series Console Operation

## Glossary of Terms

- **Idle mode** – Console has reset and is waiting for an entry. The dot matrix displays “DB”. If there is no RPM for 5 minutes, the console will power down.
- **LED** – The lights on the face of the console.
- **Watts** – The rate at which energy is currently being expended.
- **Level** – The resistance setting of the brake. The resistance increases as the level goes up.

## Default Values

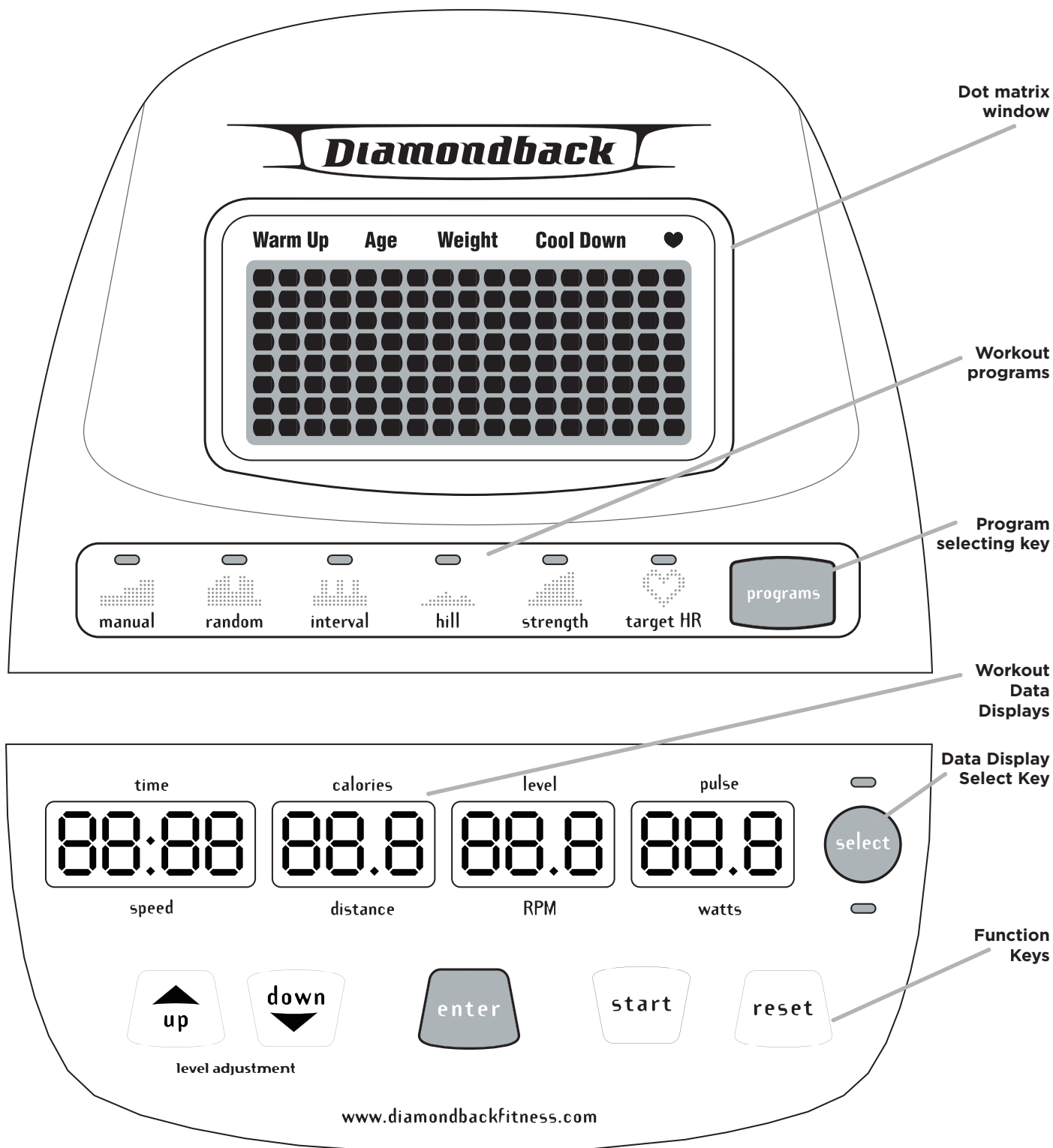
- **Age** – 35 years
- **Weight** – 155 lb (70 kg in Metric setting)
- **Program time** – 30 minutes; Segment time – 2 minutes
- **Resistance Level** – Level 1

**Note:** The default values for Age and Weight will update each time they are changed in the program settings.

## Console Operating Tips

- **Power On:** When the console is powered down, press any key or begin pedaling to wake the console.
- **Reset:** To reset the console at any time, press and hold the “RESET” key. When the console is reset it will return to the Idle mode.
- **Pause and Resume:** You may interrupt or pause a program during a workout. To pause the program, simply stop pedaling. To resume the program operation, begin pedaling once again.
- **Re-start Program:** To re-start an exercise program from the Cool Down or Workout Summary modes, press the “Start” key. The exercise program will begin again.
- **Level Adjustment:** During any program except the Target Heart Rate program, you may adjust the resistance level at any time. Simply press the Level Adjustment “UP” or “DOWN” key. The Level data display will show the current resistance level and adjust it accordingly. The dot matrix display will also update the profile to show the new resistance level.

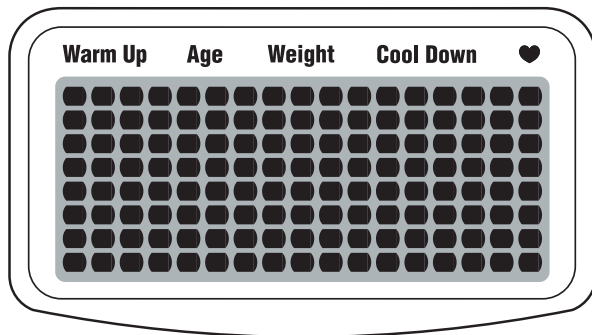
- **Target Heart Rate Adjustment:** During the Target Heart Rate program pressing the “UP” or “DOWN” key will adjust your Target Heart Rate setting for the program by 1 BPM each time the key is pressed. Press the “ENTER” key to accept the Target HR setting.
- **English/ Metric Unit setting:** The default Unit setting is the English system. To enter the system switching mode, press and hold the “ENTER” and “PROGRAM” keys for 2 seconds, during the Idle mode. The dot matrix display will show “EN” for English units or “ME” for Metric units. To change the setting, press the “UP” or “DOWN” key. After choosing the desired units press the “RESET” key to return to the Idle mode.





# Console Displays & Function Keys

## Dot Matrix /Profile display



1. During the program setup this display will light up the “Age” or “Weight” message when these values are requested. The value that is being entered will be displayed in the dot matrix.
2. The “Warm Up” and “Cool Down” messages will light up to indicate these modes.
3. The dot matrix will display “EN” for English units, or “ME” for metric units when the units are adjusted.
4. 1. The dot matrix displays the exercise profile during the program.
  - Each horizontal row represents 2 resistance Levels. So, the bottom row represents Levels 1 and 2, while the top row represents Levels 15 and 16.
  - Each vertical column represents a time interval determined by the length of the program.

## Workout data display



As soon as a program begins, these displays will show the default workout data: time, calories, level and pulse. You may change the data being displayed by pressing the “SELECT” button to the right of the displays. The LED indicators will light up to show which row of data is current being displayed.

The data that can be displayed are:

- Time (hr:min or min:sec): The time remaining in the current program. When the “Warm Up” or “Cool Down” message is displayed, this time refers to the time left in that section of the program.
- Calories (kcal): Total workout calories
- Level (Level 1 through 16): Current resistance level.
- Pulse (BPM): This measures your heart rate in Beats Per Minute.
- Speed (mi/hr or km/h): Current traveling speed as if moving.
- Distance (mile or km): Total distance traveled as if moving.
- RPM: Revolutions per Minute of your pedals.
- Watts: Current workout watts.

## Function Keys



- a. Level Up/Down keys
  - During the program setup press the Level “Up” or “Down” keys to adjust the following - age, weight, time, and HR setting.
  - During the program execution press the Level “Up” or “Down” keys to adjust the resistance Level or to adjust the Target HR (during the HR control program only).
- b. Enter key
  - After selecting the desired program, press the “Enter” key to accept the program and enter the program setup.
  - After adjusting the age, weight, time, or Target HR, press the “Enter” key to accept your entry and move on through the setup.
- c. Start key
  - Press the “Start” key to start a program immediately during program setup.
  - Press the “Start” key to skip through the Warm Up mode and continue into the program.
  - Press the “Start” key to re-start a program during the Cool Down mode.
- d. Reset key
  - Press and hold the “Reset” key to reset the console. It will restart in Idle mode.
  - Press the “Reset” key to end the program and enter the Cool Down mode.



## Warm Up Mode

### Getting Started

The console will automatically start each program with a 3-minute Warm Up section. This section is designed to prepare your body for an intensive workout and to reduce the possibility of injury during exercise.

*Note: Warm Up is skipped in the Quick Start and Manual programs.*

### Beginning the Program

The Warm Up begins as soon as the “Start” key is pressed and a program is executed. The dot matrix window will light up the “Warm Up” message and display the program profile. The Warm Up section will be displayed in the first column of the dot matrix.

### During the Program

#### Data Display

- Once the Warm Up begins, the data display window will display the default workout data of Time, Calories, Level and Pulse. Press the “Select” button to change the data display.
- The time will count down from 3:00.
- The pulse display will display the heart rate if a valid pulse signal is detected.

#### Adjustment

- The resistance will begin at Level 1; during the Warm Up it can be adjusted between Levels 1 through 5 only.
- To skip the Warm Up section and start the program, press the “Start” key at any time.

### Ending the Program

When 3 minutes have elapsed, or the “Start” key is pressed, the Warm Up will end and the exercise program will begin.

## Cool Down Mode

### Getting Started

The console will initiate a 3-minute Cool Down section at the end of each program. This section begins as soon as a program ends. Cool Down is designed to reduce muscle stiffness and allow your heart rate to recover from the workout.

### Beginning the Program

The Cool Down will be active as soon as the program ends. The dot matrix window will light the “Cool Down” message. The program profile will be displayed in the matrix, with the Cool Down shown in the last column.

### During the Program

#### Data Display

- The data display windows will continue to track and display the workout data from the exercise program. Press the “Select” button to change the data display as desired.

- The time will count down from 3:00.
- The pulse display will display the heart rate if a valid pulse signal is detected.

### Adjustment

- The resistance will begin at Level 1; during the Cool Down it can be adjusted between Levels 1 through 5 only.
- To skip the Cool Down section and re-start the program, press the “Start” key at any time.
- To end the workout and reset the console, press and hold the “Reset” button.

### Ending the Program

When 3 minutes have elapsed, the Cool Down will end and the console will go to the workout summary.

## Workout Summary Mode

### Getting Started

After the exercise program and Cool Down have ended, the console will display the final workout data before resetting. When the Cool Down ends, the Summary data will display.

### During the Program

#### Data Display

- During the summary the following data will be available for display:
  - o Workout Program time
  - o Total Calories
  - o Total Distance

#### Adjustment

- The resistance can not be adjusted during this summary.

### Ending the Program

To end the workout summary you may press and hold the “Reset” key to reset the console or press the “Start” key to re-start the program.

# Workout Programs

## Quick Start Exercise Program

### Getting Started

The Quick Start program allows you to bypass the setup mode and get started with your workout right away. By picking the Quick Start program you are accepting the default settings for calculations. You should be sure to include Warm Up and Cool Down phases at the beginning and end of your workout since these modes are skipped in the Quick Start program.

### Beginning the Program

During the idle mode, the dot matrix window displays “DB”. To begin this program, press the “Start” key once, or continue to pedal and press no keys for 30 seconds.

### Program Default Values

- Time = Unlimited
- Level = Level 1

### During the Program

As soon as the “Start” key is pressed, the Quick Start program will start.

#### Data Display

- Once the program begins, the data display window will display the default workout data of Time, Calories, Level and Pulse. Press the “Select” button to change the data display.
- The time will count up from 0:00 until the user chooses to stop.
- The pulse display will display the heart rate if a valid pulse signal is detected.

#### Adjustment

- Press the level “Up” or “Down” key to adjust the resistance level from Level 1 through 16. The level data display and the dot matrix window will update to show the level setting.

### Ending the Program

To end the Quick Start program press and hold the “RESET” key. The console will restart in Idle mode.

### Pause or Reset the Program

See the Console Operating Tips section for details.

## Manual Exercise Program

### Getting Started

The Manual program allows you to build your own exercise profile. You should be sure to include a Warm Up period during your workout since the Warm Up mode is skipped in the Manual program.

### Beginning the Program

During the idle mode, the dot matrix window displays “DB”. To begin this program, press the “Programs” key until the “Manual” program LED indicator is lit.

### Accepting default values or Entering the program setup mode

When the “Manual” LED indicator is lit, it indicates you are about to select the Manual program:

- Press the “Start” key to begin the Manual program workout with the current default values.
  - o Default time = 30 minutes
  - o Default Level = Level 1
- Or you may press the “Enter” key to start the program setup mode. The dot matrix and data displays will take you through the program setup mode step by step as shown below. (To skip the setup and begin the workout immediately, press the “Start” button at any time).

### Entering Age

1. Once the “Enter” key is pressed, the dot matrix will light the “Age” message.
2. The default Age will display in the dot matrix.
3. Press the Level “Up” or “Down” key to adjust the age.
4. Once the age is correct, press “Enter” to accept and enter Weight Adjustment.

### Entering Weight

1. The dot matrix will light the “Weight” message.
2. The default Weight will display in the dot matrix.
3. Press the Level “Up” or “Down” key to adjust the Weight.
4. Once the Weight is correct, press “Enter” to accept and enter Time Adjustment.

### Entering Time

1. The default program Time will display in the Time data display window.
2. Press the Level “Up” or “Down” key to adjust the program Time.
3. Once the Time is set, press “Enter” or “Start” to accept and begin this program.

### During the Program

As soon as the “Enter” or “Start” key is pressed, the Manual program will start.

#### Data Display

- Once the program begins, the data display window will display the default workout data of Time, Calories, Level and Pulse. Press the “Select” button to change the data display.
- The time will count down from the selected program Time.
- The pulse display will display the heart rate if a valid pulse signal is detected.

#### Adjustment

- Press the level “Up” or “Down” key to adjust the resistance level from Level 1 through 16. The level data display and the dot matrix window will update to show the level setting.

### Ending the Program

When the selected program time is up or the “Reset” key is pressed, this program will end and the Cool Down Mode will begin. See Cool Down section for details.

### Pause, Reset, or Re-start the Program

See the Console Operating Tips section for details.

## Random Exercise Program

### Getting Started

The Random program is designed to allow the user to choose from an unlimited number of computer generated profiles.

### Beginning the Program

During the idle mode, the dot matrix window displays "DB". To begin this program, press the "Programs" key until the "Random" program LED indicator is lit.

### Accepting default values or Entering the program setup mode

When the "Random" LED indicator is lit, it shows you are about to select the Manual program:

- Press the "Start" key to begin the Random program workout with the current default values.
  - Default time = 30 minutes
  - Default Level = a computer generated level profile
- Or you may press the "Enter" key to start the program setup mode. The dot matrix and data displays will take you through the program setup mode step by step. Entering Age, Weight and Time is done the same as in the Manual program setup.

### During the Program

As soon as the "Enter" or "Start" key is pressed, the Random program will start.

#### Data Display

- Once the program begins, the data display window will display the default workout data of Time, Calories, Level and Pulse. Press the "Select" button to change the data display.
- The time will count down from the selected program Time.
- The pulse display will display the heart rate if a valid pulse signal is detected.

#### Adjustment

- Press the level "Up" or "Down" key to adjust the resistance level. The resistance may be adjusted upward until a segment is at Level 16, or downward until a segment is at Level 1. The level data display and the dot matrix window will update to show the level setting.

### Ending the Program

When the selected program time is up or the "Reset" key is pressed, this program will end and the Cool Down Mode will begin. See Cool Down section for details.

### Pause, Reset, or Re-start the Program

See the Console Operating Tips section for details.

## Interval Exercise Program

### Getting Started

The Interval program is designed to build the strength of your cardiovascular system by alternating the workload from high to low. This gives your heart a very effective workout.

### Beginning the Program

During the idle mode, the dot matrix window displays "DB". To begin this program, press the "Programs" key until the "Interval" program LED indicator is lit.

### Accepting default values or Entering the program setup mode

When the "Interval" LED indicator is lit, it indicates you are about to select the Interval program:

- Press the "Start" key to begin the Interval program workout with the current default values.
  - Default time = 30 minutes
  - Default Level = the default profile alternates Rest (Level 2) and Work (Level 10) segments.
- Or you may press the "Enter" key to start the program setup mode. The dot matrix and data displays will take you through the program setup mode step by step. Entering Age, Weight and Time is done the same as in the Manual program setup.

### During the Program

As soon as the "Enter" or "Start" key is pressed, the Interval program will start.

#### Data Display

- Once the program begins, the data display window will display the default workout data of Time, Calories, Level and Pulse. Press the "Select" button to change the data display.
- The time will count down from the selected program Time.
- The pulse display will display the heart rate if a valid pulse signal is detected.

#### Adjustment

- During the Rest segment, press the level "Up" or "Down" key to adjust the resistance between Level 1 and 2 levels below the current Work setting. The remaining Rest segments will be updated to the new setting in the dot matrix profile.
- During the Work segment, press the level "Up" or "Down" key to adjust the resistance between 2 levels above the current rest setting and Level 16. The remaining Work segments will be updated to the new setting in the dot matrix profile.

### Ending the Program

When the selected program time is up, or the "Reset" key is pressed, this program will end and the Cool Down Mode will begin. See Cool Down section for details.

### Pause, Reset, or Re-start the Program

See the Console Operating Tips section for details.

# Workout Programs

## Hill Exercise Program

### Getting Started

The Hill program simulates a hill climbing exercise with a preset hill profile. The exercise profile will guide you up over a hill and down the other side.

### Beginning the Program

During the idle mode, the dot matrix window displays “DB”. To begin this program, press the “Programs” key until the “Hill” program LED indicator is lit.

### Accepting default values or Entering the program setup mode

When the “Hill” LED indicator is lit, it indicates you are about to select the Hill program:

- Press the “Start” key to begin the Hill program workout with the current default values.
  - Default time = 30 minutes
  - Default Level = preset level as shown in dot matrix profile
- Or you may press the “Enter” key to start the program setup mode. The dot matrix and data displays will take you through the program setup mode step by step. Entering Age, Weight and Time is done the same as in the Manual program setup.

### During the Program

As soon as the “Enter” or “Start” key is pressed, the Hill program will start.

#### Data Display

- Once the program begins, the data display window will display the default workout data of Time, Calories, Level and Pulse. Press the “Select” button to change the data display.
- The time will count down from the selected program Time.
- The pulse display will display the heart rate if a valid pulse signal is detected.

#### Adjustment

- Press the level “Up” or “Down” key to adjust the resistance level. The resistance may be adjusted upward until a segment is at Level 16, or downward until a segment is at Level 1. The level data display and the dot matrix window will update to show the level setting.

### Ending the Program

When the selected program time is up, or the “Reset” key is pressed, this program will end and the Cool Down Mode will begin. See Cool Down section for details.

### Pause, Reset, or Re-start the Program

See the Console Operating Tips section for details.

## Strength Exercise Program

### Getting Started

The Strength program increases the workload as the workout progresses. This program is focused on strengthening your heart and your major muscle groups.

### Beginning the Program

During the idle mode, the dot matrix window displays “DB”. To begin this program, press the “Programs” key until the “Strength” program LED indicator is lit.

### Accepting default values or Entering the program setup mode

When the “Strength” LED indicator is lit, it indicates you are about to select the Strength program:

- Press the “Start” key to begin the Strength program workout with the current default values.
  - Default time = 30 minutes
  - Default Level = preset level as shown in dot matrix profile
- Or you may press the “Enter” key to start the program setup mode. The dot matrix and data displays will take you through the program setup mode step by step. Entering Age, Weight and Time is done the same as in the Manual program setup.

### During the Program

As soon as the “Enter” or “Start” key is pressed, the Strength program will start.

#### Data Display

- Once the program begins, the data display window will display the default workout data of Time, Calories, Level and Pulse. Press the “Select” button to change the data display.
- The time will count down from the selected program Time.
- The pulse display will display the heart rate if a valid pulse signal is detected.

#### Adjustment

- Press the level “Up” or “Down” key to adjust the resistance level. The resistance may be adjusted upward until a segment is at Level 16, or downward until a segment is at Level 1. The level data display and the dot matrix window will update to show the level setting.

### Ending the Program

When the selected program time is up, or the “Reset” key is pressed, this program will end and the Cool Down Mode will begin. See Cool Down section for details.

### Pause, Reset, or Re-start the Program

See the Console Operating Tips section for details.

## Target Heart Rate Exercise Program

### Getting Started

The Target Heart Rate program is designed to keep your training at your chosen heart rate level. The console computer will adjust the resistance level automatically to ensure that you reach and maintain the heart rate goal you have set.

### Beginning the Program

During the idle mode, the dot matrix window displays “DB”. To begin this program, press the “Programs” key until the “Target HR” program LED indicator is lit.

### Accepting default values or Entering the program setup mode

When the “Target HR” LED indicator is lit, it indicates you are about to select the Target Heart Rate program:

- Press the “Start” key to begin the Target Heart Rate program workout with the current default values.
  - o Default time = 30 minutes
  - o Default Target HR = 120 BPM
- Or you may press the “Enter” key to start the program setup mode. The dot matrix and data displays will take you through the program setup mode step by step. Entering Age, Weight and Time is done the same as in the Manual program setup. After you have entered these settings you will need to set your Target HR as shown below.

### Entering Target HR setting

1. The Pulse data window will display the default target HR.
2. Press the Level “Up” or “Down” key to adjust the target HR setting.
3. After HR adjustment, press “Enter” or “Start” to accept and begin this program.

### During the Program

As soon as the “Enter” or “Start” key is pressed, the Target Heart Rate program will start.

#### Data Display

- Once the program begins, the data display window will display the default workout data of Time, Calories, Level and Pulse. Press the “Select” button to change the data display.
- The time will count down from the selected program Time.
- The pulse display will display the heart rate if a valid pulse signal is detected.

#### Adjustment

- Press the level “Up” or “Down” key to adjust the Target HR setting during the workout. The Pulse data window will show the updated Target HR setting. When the setting is at the desired Beats Per Minute, press the “ENTER” key to accept the setting.
- During this program, the dot matrix display will track the resistance level that the console is using to control your heart rate. During

the workout, you cannot directly adjust the resistance level using the function keys; only the Target HR setting may be adjusted.

### Ending the Program

When the selected program time is up, or the “Reset” key is pressed, this program will end and the Cool Down Mode will begin. See Cool Down section for details.

### Pause, Reset, or Re-start the Program

See the Console Operating Tips section for details.

# Domestic Warranty Information & Maintenance

*(Applies to all product sold and placed within the continental US only)*

## Effective: August 2002

Diamondback Fitness warrants its 400 Series products to be free from defects in material and workmanship under normal use in the home. Diamondback Fitness' obligation under this warranty is limited to repair or replacement of any defective part without charge for the part to the original purchaser with the following parameters:

## Who is Covered

The warranty is extended to the individual or legal entity whose name appears on the warranty registration card filed with Diamondback Fitness and may not be transferred to any other individual or legal entity. The warranty is valid on home use only, approximately 1 hour a day, 7 days a week. Warranty is void if this 400 Series product is placed in a commercial or light commercial environment. (i.e. hotel, motel, apartment/condo complex or business center, rehab facility, health club, school, or correctional facility.)

## Warranty Registration

WARRANTY COMMITMENTS ARE VALID ONLY WITH A COMPLETED WARRANTY CARD THAT IS RETURNED WITHIN 15 DAYS FROM THE DATE OF PURCHASE AND INCLUDES THE PRODUCT SERIAL NUMBER.

- Proof of purchase from Diamondback Fitness' authorized dealer or distributor will be required if the warranty card is not registered prior to any consideration of warranty claim.

## What is covered

Frame:	Lifetime limited warranty, covers defects in welds, materials and workmanship.
Parts & Electronics:	2 Years
Normal Wear Items:	90-day limited on foam grips, etc.
Labor:	1 Year

## Items Not Covered

The warranty does not apply to any failure of the product, or any parts of the product, due to incorrect assembly or alterations, modifications, misuse, abuse, accident, improper maintenance, or if the serial number on the product has been removed, altered or defaced. Adequate packaging must be used for returned goods to prevent freight damage.

## Parts & Service

Contact the authorized Diamondback Fitness dealer where unit was originally purchased. If that retailer is unavailable, contact Diamondback Fitness Warranty at (800) 776-7642.

- Diamondback Fitness is not responsible for arranging warranty service and/or honoring extended warranties provided by dealers.

## Additional Rights

This warranty gives the purchaser specific legal rights, and the purchaser may also have other rights depending on state law.

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## MAINTENANCE

### CAUTION - FOR SAFE OPERATION

Always inspect hardware prior to any exercise session. Look for loose hardware, loose pedals, loose cranks and frayed wires. Repair or replace any damaged or worn parts, tighten all loose hardware.

As part of Diamondback Fitness' normal installation and set-up process, all pedal cranks must be tightened after 8 to 10 hours of initial riding to ensure parts are properly seated to axle. This is standard initial "break-in" service which must be performed after the first 8 to 10 hours of use. Untightened pedal cranks may become loose, causing damage which may void the warranty.

After training, always wipe down your 400 Series unit. Perspiration that continuously settles on frame, pads or casing may eventually cause rust or damage to the unit. Damage resulting from lack of proper maintenance will not be covered under warranty. To clean pads, use a mild soap and warm water. Dry with a clean towel.

**PLEASE REMEMBER: Your 400 Series unit is powered by 4, D cell, batteries. If your console becomes dim or does not power up, please replace all 4 of the batteries with new D cell batteries.**

If noises develop or malfunctions occur, contact your authorized Diamondback Fitness dealer.

IMPORTANT!

IMPORTANT!

IMPORTANT!

IMPORTANT!

Warranty Card must be completed and returned to Diamondback Fitness within  
15 days of purchase. Failure to comply may void manufacturer's warranty.



Your Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip \_\_\_\_\_

Daytime Phone No.: \_\_\_\_\_ Evening Phone No.: \_\_\_\_\_

Dealer Store Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip \_\_\_\_\_

Model: \_\_\_\_\_ Serial No.: \_\_\_\_\_

Environment Unit Placed:

☐ Home ☐ Light Commercial

Purchase Date: \_\_\_\_\_

Mail Completed form to:

**Diamondback Fitness - Warranty Card**  
**300 Camarillo Ranch Road**  
**Camarillo, CA 93012**



[www.diamondbackfitness.com](http://www.diamondbackfitness.com)

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Diamondback Fitness is a division of Raleigh America, Inc.

**Part Number:**  
**22-04-900**

09-14-04