

**PROTEUS<sup>®</sup>**  
FITNESS INNOVATION

# **PROGRAMMABLE MAGNETIC CYCLE**



**PEC - 4350HP**  
Owner's manual

**STEP 1.** ATTACH FRONT STABILIZER ( 02 ) AND REAR STABILIZER ( 03 ) TO MAIN FRAME ( 01 ), FIX WITH BOLTS ( 28 ) & WASHERS ( 30 ).

**STEP 2.**

**IMPORTANT: READ ALL STEPS BEFORE ATTACHING PEDALS**

a. ATTACH PEDALS ( 17/18 ) TO PEDAL CRANKS, ( PEDALS MARKED "L" AND "R" INDICATES LEFT AND RIGHT SIDE OF BIKE. MAKE SURE NOT TO MIX IT UP ).

b. LEFT PEDAL HAS LEFT-HAND THREAD AND MUST BE TURNED COUNTERCLOCKWISE ( CCW ) TO ATTACH, RIGHT PEDAL HAS RIGHT-HAND THREAD, MUST BE TURNED CLOCKWISE ( CW ) TO ATTACH.

**STEP 3.** ATTACH SADDLE ( 13 ) TO SADDLE PLATE OF SEAT POST ( 04 ). FASTEN IT WITH SPRING WASHERS ( 32 ) AND NYLON NUTS ( 31 ).

**STEP 4.** SLIDE SEAT POST ( 04 ) TO SEAT POST BOOT ( 26 ), THEN ATTACH TO MAIN FRAME ( 01 ). ADJUST SADDLE TO DESIRED HEIGHT, TIGHTEN WITH POP PIN ( 25 ).

**STEP 5.** CONNECT WIRE ( A ) ( 11 ) AND WIRE ( B ) ( 12 ), CONNECT MONITOR CABLE ( A ) ( 9 ) & MONITOR CABLE ( B ) ( 10 ), THEN ATTACH HANDLEBAR POST ( 5 ) TO MAIN FRAME ( 01 ), FIX WITH WASHERS ( 30 ) AND BOLTS ( 28 )

**STEP 6.** ASSEMBLE HANDLEBAR ( 06 ) ONTO HANDLEBAR POST ( 05 ), FIX WITH WASHERS ( 30 ) AND BOLTS,

**STEP 7.** CONNECT MONITOR CABLE ( A ) ( 09 ) AND SENSOR WIRE ( A ) WITH MONITOR ( 08 ), THEN ATTACH MONITOR ONTO MOUNTING PLATE OF HANDLEBAR POST ( 05 ). TIGHTEN WITH SCREWS ( 29 ).

**NOW YOUR PEC-4350HP  
PROGRAMMABLE MAGNETIC CYCLE HAS BEEN WELL ASSEMBLED.**

**PARTS LIST**

KEY.	Q'TY	DESCRIPTION
1.	1	MAIN FRAME
2.	1	FRONT STABILIZER
3.	1	REAR STABILIZER
4.	1	SEAT POST
5.	1	HANDLEBAR POST
6.	1	HANDLEBAR
7.	1	CRANK ASSEMBLY
8.	1	CYCLEMONITOR
9.	1	MONITOR CABLE ( A )
10.	1	MONITOR CABLE ( B )
11.	1	SENSOR WIRE ( A )
12.	1	SENSOR WIRE ( B )
13.	1	SADDLE
14.	1	30 * 60 SLEEVE
15.	2	HANDLEBAR END CAP
16.	2	FOAM GRIP
17.	1	PEDAL ( R )
18.	1	PEDAL ( L )
19.	1	CHAIN COVER ( R-1 )
20.	1	CHAIN COVER ( L-1 )
21.	1	CHAIN COVER ( R-2 )
22.	1	CHAIN COVER ( L-2 )
23.	2	WHEEL
24.	2	FOOT CAP
25.	1	KNOB W/ CLAMP
26.	1	SEAT POST BOOT
27.	2	FOOT ADJUSTER BASE
28.	12	M8 SOCKET BOLT X 15mm
29.	4	M5 SCREW X 10mm
30.	12	M8 WASHER
31.	3	M8 NYLON NUT
32.	3	M8 SPRING WASHER

## E. MOTOR PROTECTION :

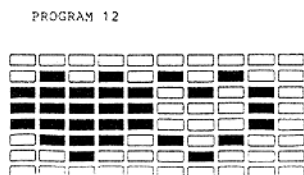
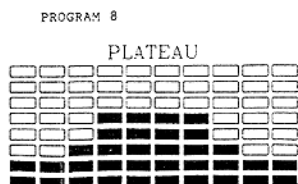
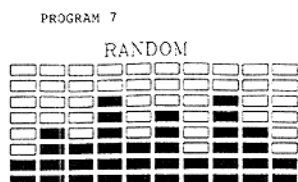
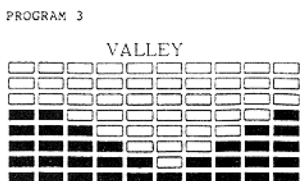
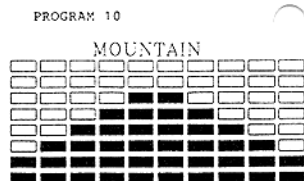
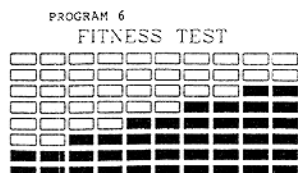
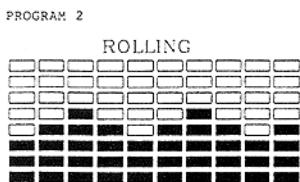
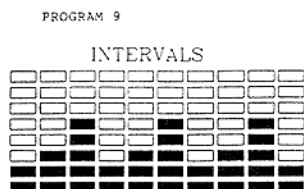
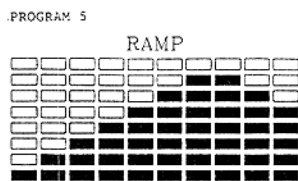
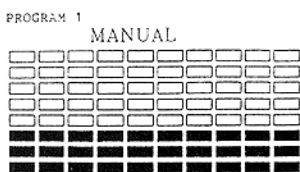
This is a warning message to users for reminding them if there's something wrong with this system.

- 1) Whenever turn on the power switch, CPU will check if the small motor is at level 0 (Resistance/effort = 0). If not, the monitor will send command to driver motor to level 0. If there's no response from the motor, monitor will show "E" on graphic display.
- 2) During exercising, if you press ▲ (+) or ▼ (-) key to adjust workout level but the motor does not response and repeated three times. The monitor will display the "E" and generate a beep sound. You can press Start/Pause key to stop the beeping.

\*\* In above condition, it's better to check if all the connections between monitor and motor are normal and whether the motor is working well or not. Then you can re-start the monitor. If the monitor still presents "E" & beeps, it's better to call service man.

## F. LCD CONTRAST CALIBRATION :

- 1) During STOP mode, press & hold ENTER & ▲ (+) keys simultaneously for over 2 seconds to enter LCD CONTRAST CALIBRATION mode.
- 2) Then you can press ▲ (+) or ▼ (-) key to adjust the LCD contrast to be lighter or darker.
- 3) After completion LCD CONTRAST CALIBRATION, press START/PAUSE KEY to exit.
- 4) There are 16 different LCD contrast level from 1 - 5 and the default value is in 8<sup>th</sup> level.

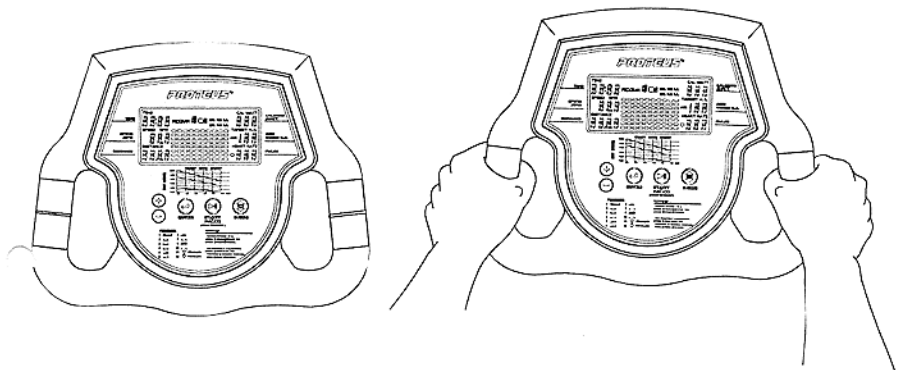


# PROGRAMMABLE MAGNETIC EXERBIKE MONITOR BC-8171II WITH LCD DISPLAY

8171II

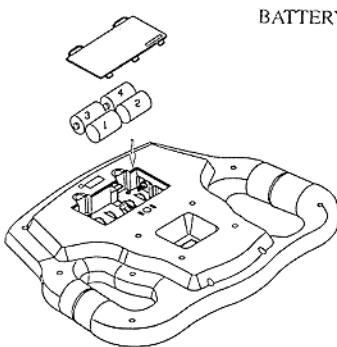
## SUMMARY:

This system is designed for programmable magnetic bike. There are 3 parts to this system the monitor (BC-8171II), motor & controller and magnetic braking system.

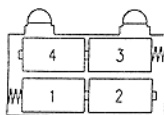


## A. POWER UP:

1. Before all, you should connect the connection cables with monitor together.
2. Install 4 UM-2 or R-14 batteries into the battery case on the back of monitor.
3. Batteries must be correctly positioned and make sure the battery spring is properly contacted with the batteries.
4. If the power source is coming from ADAPTOR (6V 500 mA), plug in the ADAPTOR. (6V 500 mA)  
When stop exercising, please remember to unplug the ADAPTOR. (6V 500 mA)
5. After power up, all LCD segments will light up for 2 seconds & CPU will be reset the resistance into level 0. And then the system goes into the initial mode. The displays will be shown as fig. 2 :



BATTERY INSTALLATION



INITIAL MODE DISPLAY

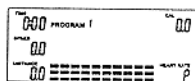
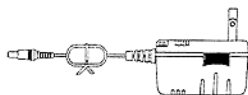


fig. 2



**\*\*REMARK :**

- 1) 1) If the connection cables were installed incorrectly, monitor will display "E" on matrix display and generate a beep sound. Please examine if all connection cables are well connected and then reset the power to release the beep sound.
- 2) Using a period of time, if the power source can't drive the motor and controller smoothly, the monitor will display a sign of "E". Please take out the batteries and wait for 15 seconds, and then reinstall the new batteries. If the monitor still present "E" and Beeps, please call service man.

**B. KEY BOARD :**

- a. MODE : Change the Speed & Cal. functions to RPM & Watt functions, and keep the other functions as the same.
- b. ENTER : During STOP mode, press Enter key to enter Time or Age setting.
- c. START/STOP : To start or stop exercising.  
Hold this button for 2 seconds can enter initial mode & reset all value to zero.
- d. ▲ : Selects Program or sets up the values of load level, time and age.
- e. ▼ : Selects Program or sets down the values of load level, time and age.

**C. FUNCTION OF GRAPHIC LCD DISPLAY :**

This system contains of 12 different programs and you can preset the workout time and system will divide the time by 10 intervals. If you don't preset workout time, system will count up the workout time in one-second increment.

**1) DETAIL OPERATION OF PROGRAM 1<sup>ST</sup> — PROGRAM 10<sup>TH</sup>.**

- a. To enter the initial mode, press the START/STOP key for over 2 seconds.
- b. Then press ▲ or ▼ key to choose the exercise program you prefer. The profile will be displayed on the graphic LCD.
- c. After finished program setting, press ENTER key to enter Time setting.
- d. The press ▲ or ▼ key to set up your desirous workout time.
- e. After finished time setting, press ENTER to exit or press START key to start exercising.
- f. When start exercising, your present workout interval will be flashing in rate of 0.5 second on & 0.5 second off.
- g. During exercising you can press ▲ or ▼ key to increase or decrease your workout resistance freely.
- h. Or you can press STOP key to enter PAUSE mode and then press START key again to restart your exercising again.

**2) DETAIL OPERATION OF PROGRAM 11<sup>th</sup> — PROGRAM 12<sup>th</sup> : (Heart-rate-control)**

This is a very unique program; it allows the monitor to adjust the workout resistance according to your heart rate automatically. If you Present heart rate is greater than your Target heart rate, CPU will decrease the workout resistance automatically. And if your Present heart rate is smaller than your Target heart rate, CPU will increase workout resistance.

- FORMULA OF PROGRAM 11<sup>TH</sup>: (60% OF MAX. HEART RATE)  
 YOUR MAXIMUM HEART RATE = 220 — YOUR AGE.  
 TARGET HEART RATE = 60% \* YOUR MAXIMUM HEART RATE
- FORMULA OF PROGRAM 12<sup>TH</sup>: (85% OF MAX. HEART RATE)  
 YOUR MAXIMUM HEART RATE = 220 — YOUR AGE.  
 TARGET HEART RATE = 85% \* YOUR MAXIMUM HEART RATE

#### OPERATING :

- During STOP mode, press START/STOP key for over 2 seconds to enter initial mode.
- Then press ▲ or ▼ to enter Heart-rate-control program (11<sup>TH</sup> or 12<sup>TH</sup> program). And the screen will show as Fig.
- Then press ENTER key to enter Time setting.
- After that press ▲ or ▼ key to set up your desirous exercise time.
- Repeat step c & d to set up your age.
- After completion all setting, press START key to start exercising.

**\*\* REMARK :** If press STOP key for over 256 seconds, system will enter HALT mode and all display will be turn off automatically.

#### D. FUNCTIONS & OPERATION :

After receiving signals, all functional values will be shown up on the screen automatically.

#### **\*\* REMARK :**

- The PULSE rate will be displayed after detected 4 stable pulse signals and it will be updated by receiving every 2 signals.
- Each pulse rate signal will be accompanied with one "♥" symbol flash.
- If no PULSE input for over 8 seconds, the CPU will turn off the pulse circuit automatically. This is a power saving measure and you can press START/PAUSE key to restart pulse function.

FUNCTIONS	DISPLAY VALUE
TIME	00:00 - 99:59 (COUNT UP) 05:00 - 99:00 (COUNT DOWN)
SPEED	0.00 99.9 KPM or MPH
DISTANCE	0.0 - 999.9 Km or Mile
RPM	0 - 999
CALORIE	0.0 - 99.9 - 100 - 999 Kcal
WATT	0-999
AGE	1 - 99
PULSE	39 - 240

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PROGRAM 1

### MANUAL



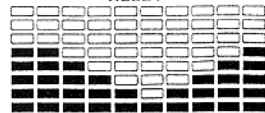
PROGRAM 2

### ROLLING



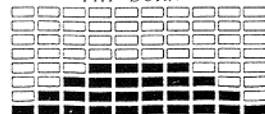
PROGRAM 3

### VALLEY



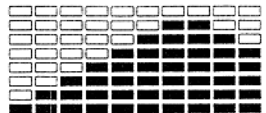
PROGRAM 4

### FAT BURN



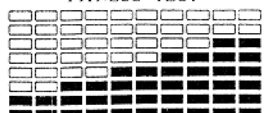
PROGRAM 5

### RAMP



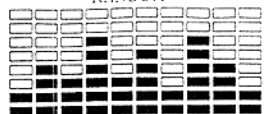
PROGRAM 6

### FITNESS TEST



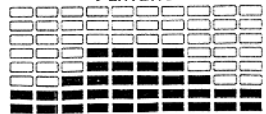
PROGRAM 7

### RANDOM



PROGRAM 8

### PLATEAU



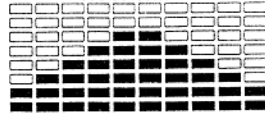
PROGRAM 9

### INTERVALS

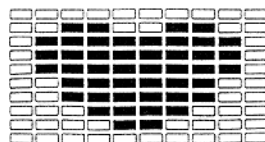


PROGRAM 10

### MOUNTAIN



PROGRAM 11



PROGRAM 12

