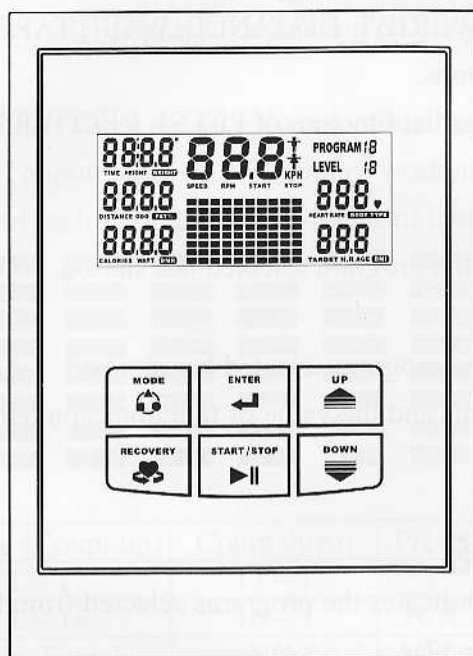


# Owner's Manual of BC-81381 Monitor for Programmable

## Magnetic Bikes



The monitor is designed for programmable magnetic bikes and introduced with the following categories:

- Key Functions
- About Displays
- Operating Ranges
- Things You Should Know Before Exercising
- Operation Instructions

### ● Key Functions

There are total 6 keys including START/STOP, ENTER, MODE, UP, DOWN, and RECOVERY.

- A. START/STOP: Starts or stops the program chosen. And, resets the monitor by pressing and holding for 2 seconds.
- B. ENTER: Chooses the functions from PROGRAMS, GENDER, TIME, HEIGHT, WEIGHT, DISTANCE, WATT, TARGET HEART RATE, AGE, and 10 columns. The chosen function shall flash. Please note that not all the functions can be selected in every program according to the types of each program.
- C. MODE: Changes the displays of the values between RPM or SPEED, and KJOULE/CAL or WATT. The values of RPM and WATT show at the same time, or the values of SPEED and KJOULE/CAL do by pressing it.

- D. UP (▲): Selects or increases the values of PROGRAMS, GENDER, TIME, HEIGHT, WEIGHT, DISTANCE, WATT, TARGET HEART RATE, AGE, and 10 columns.
- E. DOWN (▼): Selects or decreases the values of PROGRAMS, GENDER, TIME, HEIGHT, WEIGHT, DISTANCE, WATT, TARGET HEART RATE, AGE, and 10 columns.
- F. RECOVERY: Starts the function of PULSE RECOVERY.

- About Display

- A. START: Indicates the program selected has started.

**START**

- B. STOP: Indicates the program selected has stopped. And, users are free to change the programs and the value of functions applied.

**STOP**

### **PROGRAM 18**

- C. PROGRAM n : Indicates the programs selected from PROGRAM 1 to PROGRAM 15 (or 17).
- D. LEVEL n : Indicates the level of loading selected from LEVEL 1 to LEVEL 16.

### **LEVEL 18**

- E. GENDER: Indicates the gender (Male or Female) selected.

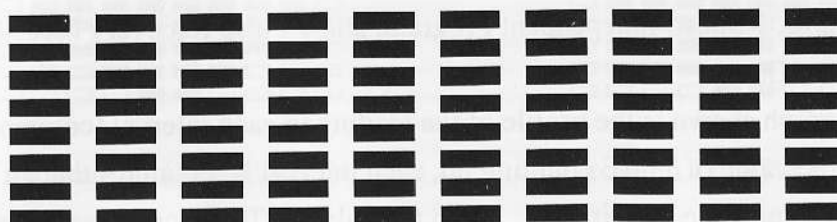


- F. TIME/HEIGHT/WEIGHT Display: Indicates only 1 value of TIME, HEIGHT, or WEIGHT displayed depending on the programs.
- G. RPM/SPEED/KMH (MPH) Display: Indicates only 1 value of RPM, SPEED, or KMH (MPH) displayed depending on the programs.
- H. DISTANCE/FAT% Display: Indicates only 1 value of DISTANCE or FAT% displayed depending on the programs.
- I. CAL/WATT/BMR Display: Indicates only one value of CAL, WATT, or BMR displayed depending on the programs.

J. TARGET H.R./BMI/AGE Display: Indicates only one value of TARGET HEART RATE, BMI, or AGE displayed depending on the programs.

K. HEART RATE/BODY TYPE Display: Indicates only one value of HEART RATE or BODY TYPE displayed depending on the programs.

L. LOADING Profiles: There are 10 columns of loading bars, and 8 bars in each column. Each column represents 3 minutes workout (without the change of TIME value), and each bar represents 2 levels of loading.



#### ● Operating Ranges

Values	Range (Count up)	Count down	Preset	Increment (Decrement)
PROGRAM	1 ~ 17	17 ~ 1	1	1
LEVEL	1 ~ 16	16 ~ 1	N/A	1
GENDER	Male, Female	N/A	Male	N/A
TIME	0:00 ~ 99:59	99:00 ~ 5:00	0:00	1:00
HEIGHT (cm)	110.0 ~ 199.5	199.5 ~ 110.0	175.0	0.5
WEIGHT (kg)	10.0 ~ 199.8	199.8 ~ 10.0	70.0	0.2
DISTANCE	0.0 ~ 999.0	999.0 ~ 1.0	0.0	1.0
WATT	30 ~ 300	300 ~ 30	100	10
TARGET H.R.	60 ~ 220	220 ~ 60	90	1
AGE	10 ~ 99	99 ~ 10	30	1

PS : Under Manual Program, the setting range of Count Down time is 99:00~1:00 ◦

#### ● Things You Should Know Before Exercising

A. The values calculated or measured by the computer are for exercise purpose only, **not for medical purpose**.

B. The Variables May Need To Change In The Programs:

Programs	Variables
P1 ~ P7	"TIME OR DISTANCE", CALORIES, AGE
P8	GENDER, HEIGHT, WEIGHT, AGE
P9	"TIME OR DISTANCE", CALORIES, TARGET H.R.
P10 ~ P12	"TIME OR DISTANCE", CALORIES, AGE
P13 ~ P16	"TIME OR DISTANCE", CALORIES, AGE, 10 Intervals
P17	"TIME OR DISTANCE", CALORIES, WATT, AGE

Please note that only 1 value of TIME or DISTANCE can be adjusted. Both adjustments do not exist at the same time. For example, the value of DISTANCE is "0.0" while the value of TIME is adjusted to be any number

except "00:00".

PS: If the power supply is from IPIII generator, monitor will automatically shut down in 60 ~ 90 seconds after user stops excise. The time of shut down depends on how long and how fast the user does the excise. Normally, when user does excise for 2 minutes in 60 RPM, the shut down time is 90 seconds.

#### C. Programs Selection:

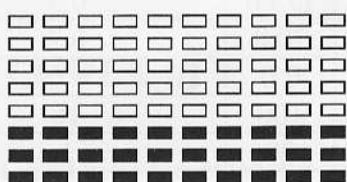
There are 17 programs with 1 Recovery including 1 Manual Program, 6 Preset Programs, 1 Body Fat Program, 4 Heart Rate Control Programs, 4 User Setting Programs, 1 Speed Independent Program, and 1 Pulse Recovery Measuring.

#### D. Program Graph:

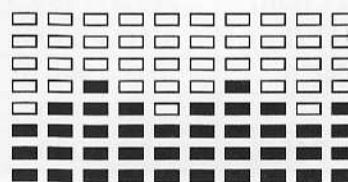
Each graph shown is the profile of the loading in each interval (column).

With the value of TIME counting up, each interval is 3 minutes that all the columns make up 30 minutes. With the value of TIME counting down, each interval is the value of setup TIME divided by 10. For example, if the time value is setup to 40 minutes, each interval will be 40 minutes divided by 10 intervals ( $40/10=4$ ). Then, each interval will be 4 minutes. The following graphs are all the profiles in the monitor.

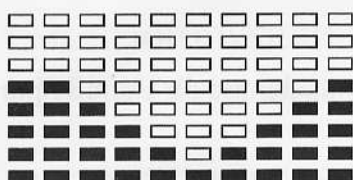
Program 1 (Manual)



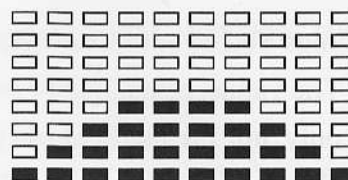
Program 2 (Polling)



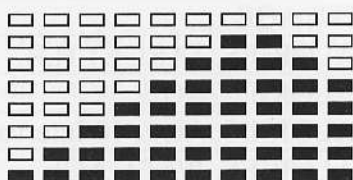
Program 3 (Valley)



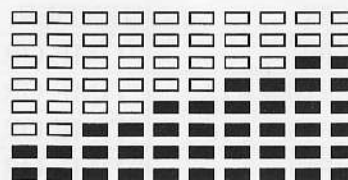
Program (Fat Burn)



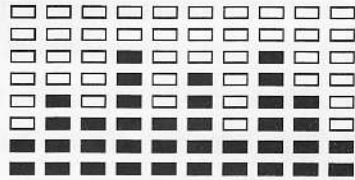
Program 5 (Ramp)



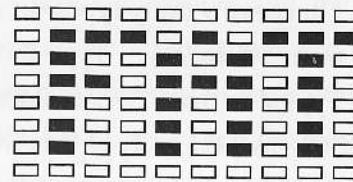
Program 6 (Mountain)



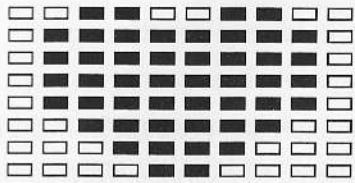
Program 7 (Random)



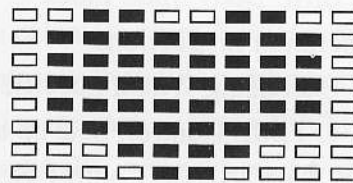
Program 8 (Body Fat)



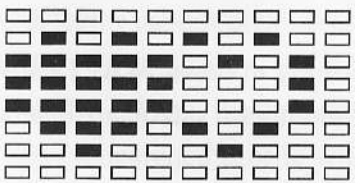
Program 9 (Target H.R.)



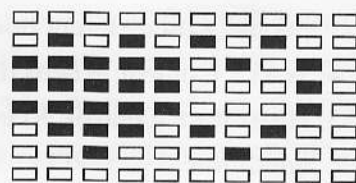
Program 10 (60% H.R.C.)



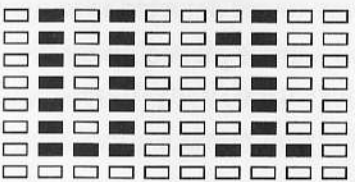
Program 11 (75% H.R.C.)



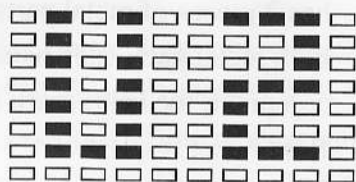
Program 12 (85% H.R.C.)



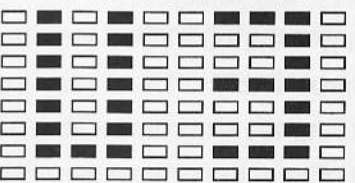
Program 13 (User Setting)



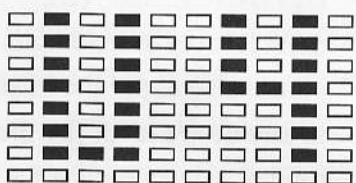
Program 14 (User Setting)



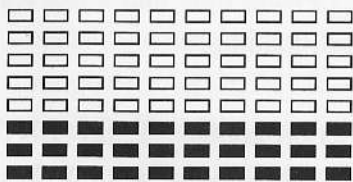
Program 15 (User Setting)



Program 16 (User Setting)



Program 17 (Speed Independent)



#### E. Body Types:

There are 9 body types divided according to the FAT% calculated. Type 1 is from 5% to 9%. Type 2 is from 10% to 14%. Type 3 is from 15% to 19%. Type 4 is from 20% to 24%. Type 5 is from 25% to 29%. Type 6 is from 30% to 34%. Type 7 is from 35% to 39%. Type 8 is from 40% to 44%. Type 9 is from 45% to 50%.

#### F. BMR: Basal Metabolism Ratio

#### G. BMI: Body Mass Index

### ● Operation Instructions

#### A. Exercising With a Specific Goal:

1. TIME Control: Sets up a period of time to exercise. (Except in Program 8)
2. DISTANCE Control: Sets up a certain distance to exercise. (Except in Program 8)
3. BODY FAT Control: Computer designs various programs for different people with different body fat ratio.
4. WATT Control: Keeps different bodies burning in desire WATT consumed.
5. Heart Rate Control: Keeps users to exercise under a safe heart-beating condition

#### B. Pulse Rate:

The whole set of heart rate detector include 2 sensors each side. Each sensor has 2 pieces of metal parts. The correct way to get detected is to gently hold both metal parts each hand. With the good signals picked up by the computer, the heart mark in the HEART RATE/BODY TYPE Display shall flash.

#### C. Manual Program:

PROGRAM 1 is a manual program. Press "ENTER" key to select TIME, DISTANCE, and AGE. Then, press ▲ or ▼ key to adjust the values. The default level of loading is 6. After pressing "START/STOP" key to exercise, please also apply the heart rate detector appropriately. Users may exercise in any desire level (by pressing ▲ or ▼ during the workout) with a period of time or a certain distance. With the input of age, the computer may suggest a target heart rate to exercise. The suggested heart rate is  $85\%(220 - \text{age})$ . So, if the heart rate detected equals to or greater than the TARGET H.R., the value of HEART RATE will keep flashing. Please note that it is a warning for users to slow down or to lower the level of loading.

#### D. Preset Programs:

PROGRAM 2 to PROGRAM 7 are the preset programs. Press "ENTER" key to select TIME, DISTANCE, and AGE. Then, press ▲ or ▼ key to adjust the values. Users may exercise with different level of loading in different intervals as the profiles show. After pressing "START/STOP" key to exercise, please also apply the heart rate detector appropriately. Users



may also exercise in any desire level (by pressing ▲ or ▼ during the workout) with a period of time or a certain distance. With the input of age, the computer may suggest a target heart rate to exercise. The suggested heart rate is  $85\%(220 - \text{age})$ . So, if the heart rate detected equals to or greater than the TARGET H.R., the value of HEART RATE will keep flashing. Please note that it is a warning for users to speed down or to lower the level of loading.

E. Body Fat Program:

Program 8 is a special program designed to calculate users' body fat ratio and to design a specific loading profile for users. With 9 different body types, the computer can generate 9 different profiles for each. Press "ENTER" key to select GENDER, HEIGHT, WEIGHT, and AGE. Then, press ▲ or ▼ key to adjust the values. After pressing "START/STOP" key to calculate body fat, please also apply the heart rate detector appropriately. If the detector cannot pick up any signals, an error message "E3" will show up in the profile display. If it happens, press "START/STOP" key to calculate again. Then, the calculation values of FAT%, BMR, BMI, BODY TYPE, and a designed profile will show up shortly. Press "START/STOP" key to exercise. The profile shown in the display is specially designed for your body type.

F. Heart Rate Control Programs:

Program 9 to Program 12 are the Heart Rate Control Programs. In program 9, press "Enter" key to select TIME, DISTANCE, and TARGET H.R. Users may setup a target heart rate to exercise in a period of time or a certain distance. In Program 10 to Program 12, press "Enter" key to select TIME, DISTANCE, and AGE. Then, press ▲ or ▼ key to adjust the values. Users may exercise in a period of time or a certain distance with 60% Max Heart Rate in Program 10, 75% Max Heart Rate in Program 11, and 85% Max Heart Rate in Program 12. After pressing "START/STOP" key to exercise, please also apply the heart rate detector appropriately. In these programs, the computer will adjust the level of loading according to the heart rate detected. For example, the level of loading may increase while the heart rate detected is lower than TARGET H.R. Also, the level of loading may decrease while the heart rate detected is higher than TARGET H.R. As a result, the user's heart rate will be adjusted to close the TARGET H.R. in the range of TARGET H.R. -5 and TARGET H.R. +5.

G. User Setting Programs:

Program 13 to Program 16 are the user-setting programs. Users are free to edit the values in the order of TIME, DISTANCE, AGE, and the level of loading in 10 intervals. The values and profiles will be stored in the memory after setup. After pressing "START/STOP" key to exercise, please

also apply the heart rate detector appropriately. Users may also change the ongoing loading in each interval by pressing ▲ or ▼ key, and they will not change the level of loading stored in the memory. With the input of age, the computer may suggest a target heart rate to exercise. The suggested heart rate is  $85\%(220 - \text{age})$ . So, if the heart rate detected equals to or greater than the TARGET H.R., the value of HEART RATE will keep flashing. Please note that it is a warning for users to speed down or to lower the level of loading.

#### H. Speed Independent Program:

Program 17 is a Speed Independent Program. Press "ENTER" key to select the values of TIME, DISTANCE, WATT, and AGE. Then, press ▲ or ▼ key to adjust the values. After pressing "START/STOP" key to exercise, please also apply the heart rate detector appropriately. During the exercise, the level of loading is not adjustable. In this program, computer will adjust the level of loading according to the value of WATT setup. For example, the level of loading may increase while the speed is too slow. Also, the level of loading may decrease while the speed is too fast. As a result, the calculated value of WATT will close to the value of WATT setup by users. With the input of age, the computer may suggest a target heart rate to exercise. The suggested heart rate is  $85\%(220 - \text{age})$ . So, if the heart rate detected equals to or greater than the TARGET H.R., the value of HEART RATE will keep flashing. Please note that it is a warning for users to speed down or to lower the level of loading.

#### I. Pulse Recovery:

It is a function to check the condition of pulse recovery that is scaled from 1.0 to 6.0 while 1.0 means the best and 6.0 means the worst and the increment is 0.1. In order to get rated correctly, users must test it right after the workout finished by pressing "RECOVERY" key and then stop exercising. After the key is pressed, please also apply the heart rate detector appropriately. The test will last for 1 minute and the result will show in the display.

If the power supply is from IPIII generator, monitor will automatically shut down in 60 ~ 90 seconds after user stops exercise. The time of shut down depends on how long and how fast the user does the exercise. Normally, when user does exercise for 2 minutes in 60 RPM, the shut down time is 90 seconds. Please do the Pulse Recovery after doing exercise (2 minutes in 60 RPM.).

PS :

1. The soft touch keys may appropriately work after turning on the monitor for 5 seconds.
2. Under exercise mode, user quits exercise and does not stop the exercise function of the monitor. The resistance will automatically back to the first level.