# MicroFit(CMF-1000WB) EMS TRAINING DEVICE Application user's manual

# Table of Contents

- 1. Basic application specification
- 2. Menu configuration
- 3. Product composition
- 4. Screen composition and posture description

#### 1. Basic application specification

The "User's manual of the EMS for knee rehabilitation" describes the App used to link the "wireless low frequency stimulator" through Bluetooth.

This App doesn't guarantee compatibility with versions earlier than Android version 5.0 (Lollipop), and its normal operation was confirmed in Android version 5.0 (Lollipop) and 6.0 (Marshmallow).

This App is designed for an individual user and records and saves the exercise information for one user.

### 2. Menu configuration

A Loading (Initial Screen I)				
A1 BT Connect Screen (Initial Screen II)	B Main menu	<b>B1</b> Exercise plan	B11 Fitness	
			B12 Back muscle strengthening	
			B13 Exercise performance	
			B14 Body shape management	
			B1X User Exercise plan	
		B2 Program	B21 Adapt to pulse	
			B22 Strengthening-Basic	
			B23 Strengthening-Advanced	
			B24 Metabolism	
			B25 Muscle relaxation	
			B2X User Program	
		B3 Favorite	B3X Favorite Exercise / Program	
		<b>B4</b> Settings	B41 Program management	B411 Program registration
				B412 Program modification
			B42 Exercise plan management	B421 Exercise plan registration
				B422 Exercise plan modification
			B43 Favorite management	
			B44 Exercise data extraction	
			B45 Reset	
			B46 Information	

[Figure 1] Application menu configuration

The App screen is composed as shown in [Figure 1].

You can return to the previous menu using the [Back] button on the screen or the Android [Back] button.

B1X can be more than one and can be added dynamically according to the added exercise plan.

B2X can be more than one and can be added dynamically according to the added program.

B3X can be more than one according to the added favorite menu, and it can be up to six.

## 3. Product composition



## 4. Screen composition and posture description

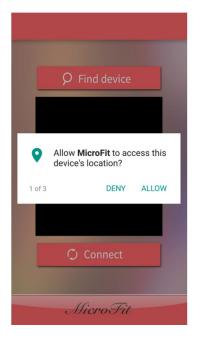
#### 4-1. Execution and connection

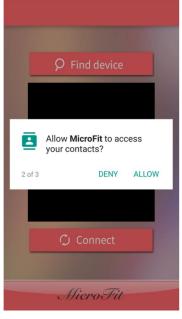
Bluetooth should be turned on to connect to the "wireless low-frequency simulator" before running the App.

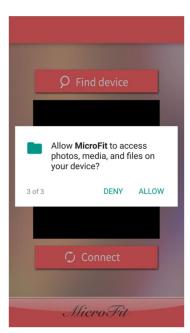


[Figure 1] App start-up screen Logo

[Figure 1] shows the logo screen displayed when starting up the App. This screen appears briefly and disappears automatically.

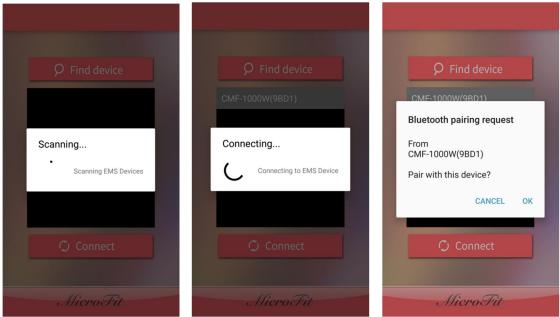






#### [Figure 2] Permission request screen

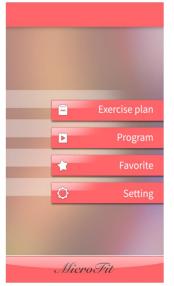
When running the App for the first time, request Permissions in [Figure 2] in the Android version 6.0 or later. Location access is needed to use Bluetooth, and media and address book access are needed to save and send the data.



[Figure 3] Bluetooth connection screen

[Figure 3] shows the Bluetooth connection screen. If [Search device first] is pressed, the device that can be connected will be displayed as in the second figure. Click the pertinent device to select. When the color is changed to gray, press the [Connect] button to return to the main menu.

#### 4-2. Main menu



[Figure 4] shows the main menu screen. No [Back] function is available in the main menu. If the Android [Back] button is pressed, the [Exit] confirmation message will appear. If the [Back] button is pressed again, the program will be terminated.

The "Exercise plan" menu is used to open pre-determined exercise postures based on the entered exercise plan, or for an exercise plan to be newly entered by the user.

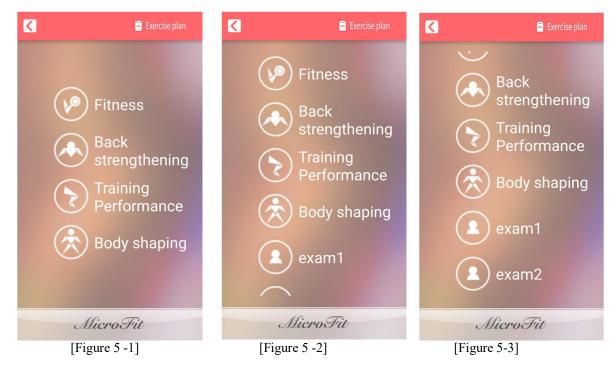
The "Program" menu is designed to utilize the stimulation function of the low-frequency stimulator. The program can be executed by changing the strength frequency according to the time.

[Figure 4] Main menu screen

Up to six programs can be added to "Favorite menu," which contains frequently-used exercise plans or programs.

Lastly, the "Settings" menu is used to add/delete a program/exercise plan, modify the favorite, or extract or reset the exercise data.

#### 4-3. Exercise plan

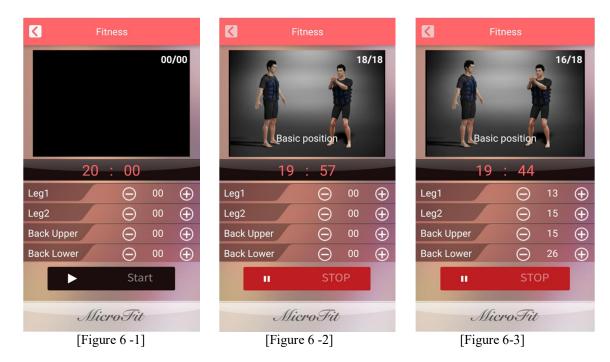


Fitness, Back muscle strengthening, Exercise performance, and Body type are registered as basic exercises in "Exercise plan."

If a new user-defined exercise type is added in Settings, it will be added to the menu as shown in [Figure 5-2]. If several user-defined exercise types are added, it can be scrolled down as shown in [Figure 5-3].

#### 4-3-1. Detailed exercise screen

Touch each exercise type in "Exercise plan" to display the pertinent exercise screen.



The above figures show the screen of each detailed exercise.

The above screen shows the exercise posture that the user can follow when doing an exercise.

The screen changes as the set is proceeded, as time goes by.

The time displayed in the middle shows the remaining time. Exercise is proceeded by reducing one second from the total exercise hours.

The list below the time indicates the intensity of low-frequency stimulation on the chest, abdomen, arm, back, waist, buttocks, and leg.

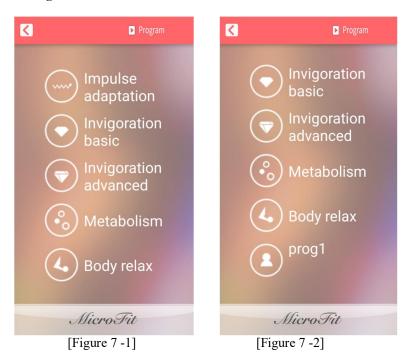
Signal intensity can be adjusted using the - and + button, and the intensity of each part can be checked by scrolling up and down.

Lastly, the buttons below are used to start and stop the exercise. Press Stop to stop exercise and the exercise hours will be saved as data.

Even though the [Back] button on the top left side is displayed while exercise is in progress, the Android Back button can be used to stop and move back at the same time.

In addition, if the App is terminated by pressing the Home button during exercise, the app will change to a stop state.

#### 4-4. Program



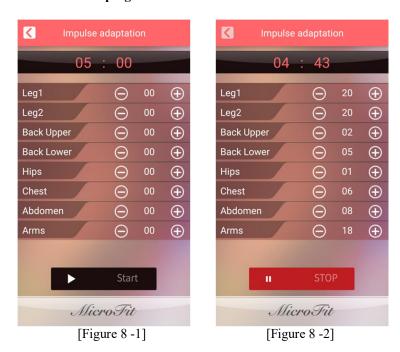
By default, five pre-defined exercise programs have been entered.

A user-program can be added using the Settings menu, and the user-defined program will be added to the bottom of the default program list.

[Figure 7-1] shows the default program.

[Figure 7-2] shows the screen when the user-defined program is added.

#### 4-4-1. Detailed program



When the detailed program is started, the [Start] and [Stop] button appear at the bottom in the same way as the exercise plan.

In addition, the time display for the posture is added on the top.

All eight signal intensities by part are displayed on one screen, and the intensity can be adjusted by the user on a scale of 0 to 99.

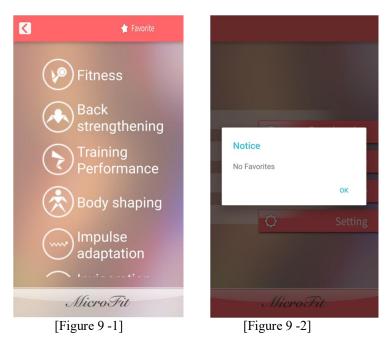
[Figure 8-1] shows the mode before start, and

[Figure 8 -2] shows the screen when the program is in progress.

#### 4-5. Favorite

The "Favorite" menu shows a group of exercise plans and programs that have been added to Favorite in Settings.

Up to six items can be registered.



[Figure 9-1] shows the screen that displays the registered favorite.

Both the exercise plan and program can be registered, as shown in the figure.

If there is no registered Favorite, a dialog box will appear as shown in [Figure 9-2].

#### 4-6 Settings

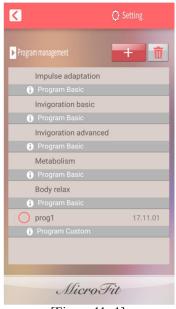


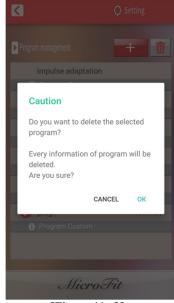
[Figure 10]

The Settings menu is composed of six items as shown in [Figure 10].

- "Program management" enables the user to add/remove a program, or display/modify information.
- "Exercise plan management" enables the user to add/remove an exercise plan, or display/modify information.
- "Favorite management" enables the user to add/delete a favorite.
- "Exercise data extraction" is used to save the exercise data and send it via e-mail or Kakao Talk.
- "Reset" deletes all exercise plans, programs, favorites, and exercise data that have been saved up to now, and returns to the initial state.
- "Information" shows the hardware version and firmware version of the connected device.

#### 4-6-1. Program management







[Figure 11 -1]

[Figure 11 -2]

[Figure 11-3]

The "Program management" menu enables the user to add/delete a program, and view the detailed information of the pertinent program.

As shown in [Figure 11-1], the program added by the user will be indicated by a check mark and Program Custom. When the use-defined program is selected, "Program Custom" will be indicated and the created date can be checked.

[Figure 11-2] shows the deletion screen. To delete a program, select a check box before the program name, and touch the recycle bin shaped icon on the upper right side. When the warning dialog box appears, press [OK].

[Figure 11-3] shows the detailed information that is displayed when the program name is clicked. To modify the program, press View detailed information and Modify.

Or, a new program can be added by pressing the + shape button on the upper right side.

#### 4-6-2. Program registration/modification





[Figure 12 -1]

[Figure 12 -2]

To add a program, input the name and exercise hours and input the following information.

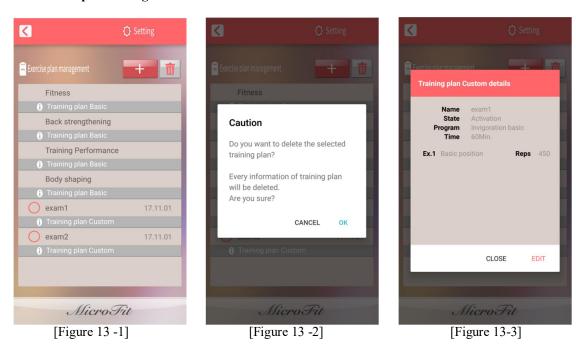
- Stimulation intensity:
- Pulse operating time
- Pulse pause time
- Frequency
- Pulse width
- Pulse rise time

[Figure 12-1] shows the program registration screen. When entering a program, both the slide and text input method can be used.

[Figure 12-2] shows the program modification screen. Click Modify in the dialog box to modify the detailed information.

The modification items are the same as the registration screen.

#### 4-6-3. Exercise plan management



The "Exercise plan management" menu enables the user to add/delete an exercise plan, and view the detailed information of the exercise type.

[Figure 13-3] shows four default exercise plans, and the user-defined exercise plan that is marked with "Custom."

[Figure 13-2] shows the deletion screen. Select an exercise plan and press the recycle bin shaped button to delete the exercise plan.

[Figure 13-3] shows the screen that displays the detailed information of the exercise plan.

More information on several postures during exercise can be checked, and the selected exercise plan can be modified by pressing Modify.

#### 4-6-4. Exercise plan registration/modification







[Figure 14 -1]

[Figure 14 -2]

[Figure 14 -3]

The user can select the exercise plan name and the program to use together in "Exercise plan."

"Program" cannot use "Pulse adaptation" and "Metabolism" of with pulse operating hours are not set.

Input exercise hours in minutes when registering an exercise plan, as shown in [Figure 14-1].

The remaining times are displayed for each pulse cycle, and a new exercise posture can be added using [Add posture] button.

An exercise posture can be selected from the list, as shown in [Figure 14-2], and the number of repetition times should be entered together for the pertinent exercise posture.

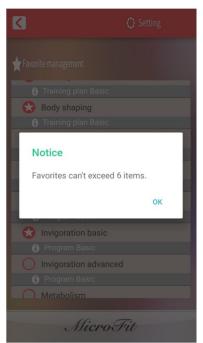
A post cannot be added by pressing [Add posture] button, if the number of repetition times is not entered.

Press the Recycle bin icon besides each posture to delete it.

[Figure 14-3] shows the exercise plan modification screen, and the input items are configured in the same way as the registration items.

#### 4-6-5. Favorite management





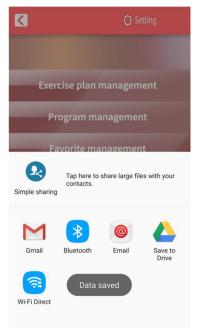
[Figure 15 -1]

[Figure 15 -2]

"Favorite management" shows all active exercise plans and programs on a single screen, as shown in [Figure 15-1], and the favorite registration can be turned on or off by clicking each favorite item.

Up to six favorites can be added as shown in [Figure 15-2].

#### 4-6-6. Exercise data extraction

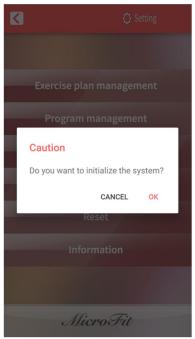


[Figure 16]

If the "Exercise data extraction" menu is clicked, the data can be sent to the contact and related Apps in the mobile phone.

The data will be sent as an Excel file, and the data includes the start time, end time, exercise hours, and exercise and program type.

#### 4-6-7. Reset



[Figure 17]

"Reset" deletes the exercise data, added program, and exercise plan data, to restore the environment of the first App installation.

The default program and exercise plans will not be deleted.

#### 4-6-8. System information



[Figure 18]

The "Information" menu is used to check the hardware and software version of the device.