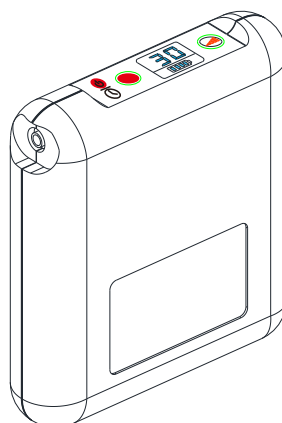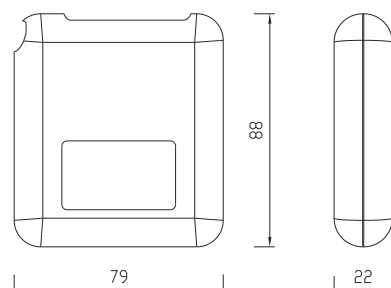# User Manual of Controller

Features

1. Build in lithium-ion battery package.
2. LCD display.
3. Battery capacity indication.
4. Low standby power consumption.
5. Over-charging protection.
6. Over-discharging protection.
7. Output short circuit protection.
8. Therapy time and intensity can be selected.
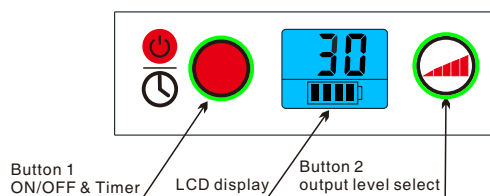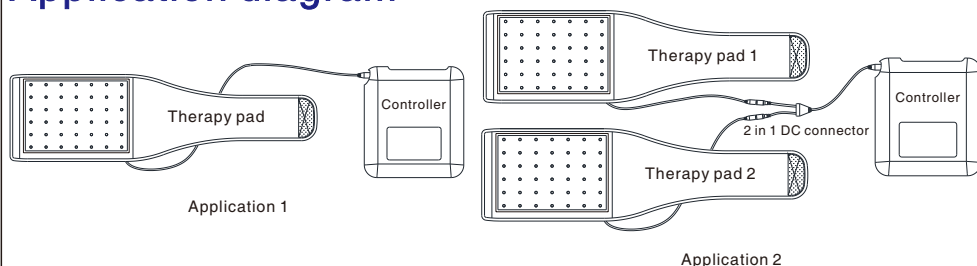9. Non-flammable plastic housing,more safety.

Parameter

Battery parameter	Li-ion 18650 11.1V/2200mAh	Output power	25W(max)
		Charging current	0.5-2.0A
Over-charging voltage	12.6V	Dimension(mm)	L88*W79*H22
Over-discharging voltage	9.6V	Weight	180g

Controller Panel

Button 1 ON/OFF & Timer
LCD display
Button 2 output level select

Application diagram

Therapy pad
Controller
Application 1

Therapy pad 1
Therapy pad 2
2 in 1 DC connector
Controller
Application 2

NOTE: 1.The therapy pad 1 and 2 shall be in the same location in application 2.
2.The total power of therapy pad 1 and 2 must be less than 25W in application 2.

Description

The controller is build in Li-ion battery package, it can achieve some function that selecting therapy intensity, selecting therapy time, indicating the battery capacity, over-charging protecting, and over-discharging protecting.The LCD display in the controller can display 5 status: setting therapy time, rest of therapy time, therapy intensity, battery capacity and charging indication.

Button 1: ON/OFF & therapy time selection. Long press controller power on, Long press again controller power off. In power-on status short press selecting therapy time.There are 6 selections:30 minutes, 25 minutes, 20 minutes,15 minutes,10 minutes and 5 minutes.

Button 2: Therapy intensity selection. In the power-on status, short press selecting therapy intensity. There are 4 selections: L4(100% intensity),L3(75% intensity), L2(50% intensity) and L1(25% intensity).

Setting therapy time display: ″,30″ means therapy time=30 minutes, ″,25″ means therapy time=25 minutes, etc..

Rest of therapy time display: ″30″ means rest of therapy time=30 minutes, ″29″ means rest of therapy time=29 minutes, ″28″ means rest of therapy time=28 minutes, etc..

Therapy intensity display: ″L4″means 100% intensity, ″L3″means 75% intensity, ″L2″ means 50% intensity, ″L1″means 25% intensity.

Battery capacity display: The battery capacity symbol″ ▮▮▮▮ ″ will always display while power-on.

Charging display: If the controller in charging status,the symbol ″ ▮▮▮ ″ will flash.If charging is finish symbol″ ▮▮▮▮ ″ stop to flash.

Over-charging,over-discharging and output short circuit protecting: In the charging process, when the battery voltage ≥12.6V, it will trigger over-charging protecting,the controller will stop to charge and battery symbol stop to flash.In the use process, when the battery voltage ≤9.6V,it will trigger over-discharging protecting, after LCD flash several times the controller will power off and turn off output. In the use process,when output short circuit,controller will power off and turn off output immediately so that prevent device damage.

Taking single use for example : long press the button 1 for 2s,controller power on,build-in clock begin to run, the LCD display rest of therapy time and battery capacity. Short press button 1, user can select the therapy time, LCD will display the therapy time user selected. After 2s, LCD go back to display rest of therapy time and battery capacity . Short press button 2, user can select the therapy intensity, LCD will displsy the therapy intensity user selected. After 2s, LCD go back to display rest of therapy time and battery capacity. In the status of displsying rest of therapy time and therapy intensity, short press button 1 or button 2 can review previous therapy time and therapy intensity. If time is up, controller power off and turn off output.

NOTE: 1. When controller power on, the default therapy time is 30 minutes, the default therapy intensity is L4(100% intensity).
2. When user change the therapy time,controller will restart from the current therapy time user selected.
3. User changing therapy intensity has no effect on previous setting therapy time until the controller power off.
4. Please turn off the controller before charging.