Stay Young

## Service Manual

M8 Treadmill

Display Type: Entertainment Plus





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### 1. Engineering Mode:

Press center of logo for 5 seconds to get in.

English	S OR QUICK START	QUICK	
Training Courses	Goal Training	Heart Rate Control	

### 1.1. Wi-Fi settings:

Configuration	
Wi-Fi	Wi-Fi ON/OFE Wi-Fi
Ethernet	Enable Wi-Fi
τv	SSID Scan
Preference	FT-wireless
Heart Rate Control	Connected: 192.168.1.100 (DNS: 192.168.1.1)
System	Security: WPA2
ErrorLog	Security: WEP
Testing	
Update	Useable Wi-Fi
About	
Advanced	
Configuration	
Wi-Fi	Wi-Fi
Ethernet	Enable W -Fi
TV	SSID FTwireless Security: WPA2 Scan Scan Select a Useable
Preference	FT-wiref ss
Heart Rate Control	FTwirelets Cancel Connect State
System	wahlee then press
ErrorLog	Security: WEP Connect button.
Tab <b>q</b>	wertyuiopes
?123 <b>a</b>	s d f g h j k l Done
순 <b>Z</b>	x c v b n m , <sup>1</sup> .
/	@ / :-)



#### **1.2. Ethernet: Reserved for further use.**

#### 1.3. TV settings: CVBS

### 1.3.1. Scan Channel-Europe Tuner(Pal / DVB-T)





### 1.4. Preference

Configuration	
Wi-Fi	Preference
Ethernet	Unit
TV	
Preference	Min Speed Set Minimum speed.
Heart Rate Control	Max Speed Setting range: 0.2~1.0 kph / 0.1~0.6mph
System	Set Maximum speed.
ErrorLog	Max Incline Setting range: 16.0~25.0 kph / 10.0~15.6mph
Testing	
Update	
About	
Advanced	Set Maximum Incline level.

### 1.5. Heart Rate Control

Configuration		
Wi-Fi	Heart Rate Control	
Ethernet	Control Mode	Speed: Speed auto adjust only
TV		Incline: Incline auto adjust only
Preference	Oual	Dual: Speed and Incline auto adjust
Heart Rate Control		
System		
ErrorLog		
Testing		
Update		
About		
Advanced		



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### 1.6. System

Ethernet	
	State
	Totol Distance 0.0 km
IV	Totol Time
Preference	Ave. Speed
Heart Bate Control	0.5 km/h
Theart nate control	
System	- 530 +
ErrorLog	Incline A/D
Testing	- 130 +
Undate	Settings
opuate	Idle Detection OFF
About	GS Mode OFF
	Timezone Offset
Advanced	+ 0 0 ; 0 0
	Management Server
	192.168.1.111

### State:

**Total Distance:** Total used distance **Total Time:** Total used Time **Ave. Speed:** Average Speed

### Calibration: (parameter settings)

**Speed/HZ:** Speed parameter, high value, and higher speed to each speed point. **Incline A/D:** incline lowest position parameter.

### Settings: (Other settings)

**Idle Detection:** Auto PAUSE while machine working but no user on it. Detect time is about 30~40 seconds.

### GS Mode:

 $\begin{array}{l} \text{OFF} \rightarrow \text{incline go to 0 after STOP.} \\ \text{ON} \rightarrow \ \text{incline go to 0 after Start.} \end{array}$ 

**Timezone Offset:** Timezone setting, for USB data saving, file name reference to date and time.

Management Server: Asset Management Local Host IP.



### 1.7. ErrorLog: Error signal records



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### **1.8.** Testing: Control system output test and input information.

		OFF: Stop	motor.		
		ON: Run h	notor.		
Configuration					
Wi-Fi	Testing				
Ethernet	Enable OFF				
TV			Motor (or Setting R	u <b>tput) Hz</b> ange: 4~180HZ	
Preference	Incline AD		Incline A	<b>D:</b> Incline position	
Heart Rate Control	Status		Setting R	ange: 100~1000	
System	DC Bus Voltage		DC Bus V	/oltage:	
ErrorLog	Output Current		Motor co	ntroller internal operat	ing
Testing			voltage, u	usually should be within	n
Update			290~320	V.	
About					
Advanced			Output Cu	irrent:	
			Motor con	ntroller output current, u	usually
			should be	within 4~7Amp if the p	person
			weight is u	under 100kg, test spee	d is 8
			km/h.		



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### 1.9 Upgrade

### 1.9.1 Upgrade the app (Software update)

*Step 1:* Insert the USB device (shall be new software inside. e.g.: **Treadmill–20150126170001- signed.apk**) to external USB port of machine.



Step 2: Enter to Engineering Mode – Update page, select new software and press Update.



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installation is completed.



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1.9.2. Update Bookmarks (update internet website icon and address)

Step 1: To create a document, name it "bookmark".

Step 2: Put website icon to bookmark document, the icon specification shall be 152X152, PNG format.







**Step 4:** save the link information file to a UTF-8 format and change file name to bookmark, change vice file name to Jason then put it to bookmark document.







*Step 5:* Put bookmark document to USB device; insert the USB device to external USB Port of Machine.





**Step 6:** Enter to Engineering Mode – Update page, press Update key of Bookmarks, will show update finished after update.

Configuration			
Wi-Fi	Update		
Ethernet	App Update		
TV	Treadmill-20150216163402-signed.apk		
Preference	Bike-20150216163402-signed.apk Bookmarks Update		
Heart Rate Control	video.ison Update		
System	Logo Clear		
ErrorLog	erela		
Testing	FITNESS		
Update			
About			
Advanced			

Configuration	
Wi-Fi	Update
Ethernet	App Update
т٧	Treadmill-20150216163402-signed.apk
Preference	Biokmarks Undate update finished
Heart Rate Control	video ison Undate
System	
ErrorLog	
Testing	FITNESS
Update	
About	
Advanced	



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# 1.9.3 Update video data (update Virtual Connect information, it is not update for video film, only update for film illustration and interactive scenario.)

**Step 1:** Create a new note or WordPad file. Typing the virtual connect information according to the rules as below.



![](_page_13_Picture_0.jpeg)

**Step 2**: Save the link information file to a UTF-8 format and change file name to video, change vice file name to Jason then put it to USB root content. Insert USB device to external USB port of machine.

![](_page_13_Picture_4.jpeg)

![](_page_13_Picture_5.jpeg)

![](_page_13_Picture_6.jpeg)

![](_page_14_Picture_0.jpeg)

**Step 3**: Enter to Engineering Mode – Update page, press Update key of video.json, will show update finished after update.

![](_page_14_Picture_4.jpeg)

S	Ireadmill-20150216163402-signed.
	Bike-20150216163402-signed.apk
B	ookmarks Update
vi	deo.json Update update finished
Lo	ogo Clear

![](_page_15_Picture_0.jpeg)

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### 1.9.4 Replace Logo

**Step 1:** Logo icon size shall be under 330X80 with png format, change icon name to logo then put into USB device root content. Insert USB device to external USB port of machine.

![](_page_15_Picture_5.jpeg)

![](_page_15_Picture_6.jpeg)

![](_page_15_Picture_7.jpeg)

![](_page_16_Picture_0.jpeg)

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**Step 2:** There will be have 2 logos shown at engineering mode-Update page, one is current logo, another is new logo in USB device, press Update key that next to New Logo to replace the logo. Press Configuration to exit engineering mode to main page to check the logo.

NOTE: if you do not want to show any Logo, just press Clear to clear logo.

![](_page_16_Picture_5.jpeg)

English	AMS OR	QUICK STAR	RT >>>>>	QUIC	KT	
Training Courses	=	Goal Training	=	Heart Rate Control		
Physical Test		Virtual Connect		Multimedia		

![](_page_17_Picture_0.jpeg)

### 1.10 About (Machine information)

		Machine Type: Treadmill or Bike or
		Ellipticaldependonwhatsoftwareyou
Configuration		installed.
Wi-Fi	Version	Model: need to insert manually in Advanced Page.
Ethernet	Machine Type	
TV	Model M-7A00A1	in Advanced Page.
Preference	Serial Number 888888888	
Heart Rate Control	App 20150216163402	APP: Software Version.
System	Kernel     #1 SMP PREEMPT Wed Feb 11 10:56:17 CST 20     MFi	15
ErrorLog	3.00	Kernel: Firmwareversion,justneedto
Testing		check month/date/year (Feb 11 & 2015).
Update		MFi: Apple Device compatibleversion
About		
Advanced		

![](_page_18_Picture_0.jpeg)

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### 1.11 Advanced:

Configuration								
Wi-Fi	() anocd							
Ethernet	Unlock ••••							
TV			2.4					
Preference	Pas	sword: 12	34					
Heart Rate Control								
System								
ErrorLog								
Tab <b>1</b>	2 3	4	5	6	7	8	9	0 🗠
ABC #	\$	% &	*	-	+	(	)	2 Done
~\{	< >	=	: ;	,	•	!	?	~\{
	/ @					"	-	

Configuration		Machine Type: Treadmill or Bike or
Wi-Fi	Advanced	Ellipticaldependonwhatsoftwareyou
Ethernet	Type Treadmill	
TV	Model M-7A00A1	Model: Enter model by numeric keypad
Preference	Serial Number	Serial Number: Enter serial number by numeric
Heart Rate Control	88888888	keypad (Do not change if not necessary.)
System	74:fe:48:2a:36:96	Wi-Fi MAC Address: Wi-Fi unique code
ErrorLog	Total Distance	if firmware version less than 2015/2 📌
Testing	0.9 mi Clear	before update, please press Generate to
Update	2.1 hrs Clear	change the code after update.
About	Exit	Total Distance & Total Time: Press Clear
Advanced	Exit to Launcher	to reset value.

**Exit to Launcher**: Press this key to exit the APP and back to Android desktop. If you want to enter APP again, please insert USB device or reset the power.

![](_page_19_Picture_0.jpeg)

### 2. Firmware Update:

### 2.1. Update Notices:

2.1.1. Please Confirm Firmware Version in powering-on page is the Android or CIRCLE FITNESS.

![](_page_19_Picture_6.jpeg)

2.1.2. Firmware Update shall be use the right version to update, e.g.: if firmware version is 12 01 2014, want to update to Feb 11 2015, shall be use update\_141201\_150211\_native.zip (Android version) or update\_141201\_150211\_logo.zip(Circle version) update file.

![](_page_19_Picture_8.jpeg)

2.1.3. System read update.zip file name only, the update file name we provide with version information, e.g.: update\_141201\_150211\_logo.zip, you need to change the file name to update.zip before insert USB device to external USB port of machine.

![](_page_19_Picture_10.jpeg)

2.1.4. System will delete update.zip of USB device, if you would like to update next machine, you need to copy the update.zip file to USB device again.

組合管理 ▼ 共用對象 ▼ 燒錄 新增資	料夾 🖾 🕶 🔟 🔞	組合管理 ▼ 共用	對象 ▼ 新増資料夾	= • 🛛 🔞
🚖 我的最爱		🕎 我的最愛	這個資料夾是	空的。
🚂 下載		▶ 下載		
三 桌面 🗉 🔛	5	画 桌面	E	
1911 最近的位置		9月 最近的位置		
update	zip			
<b>深</b> 煤體櫃		□ 煤題櫃		
📄 文件	T			
		▶ 👌 音樂		
視訊				
■ 圖片		■ 圖片		
•			•	
1個項目		0個項目		

![](_page_20_Picture_0.jpeg)

**2.2. How to update:** copy update file update.zip to USB device, insert USB device to external USB port of machine, system will auto update and reboot.

**NOTE:** System will delete update.zip of USB device, if you would like to update next machine, you need to copy the update.zip file to USB device again.

![](_page_20_Picture_5.jpeg)

![](_page_21_Picture_0.jpeg)

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### **3. Trouble Shooting**

- 3.1. Error Code:
- 3.1.1. Error Code: 01 Low Voltage during work.

![](_page_21_Picture_6.jpeg)

### **Description:**

Input voltage is too low during workout (DC Bus lower than 150V),220V system lower than 115Vac, 110V system lower than 70Vac.

### Analysis and Solutions:

No	Analysis	Solution	
1.	Wrong input voltage	Please confirm input voltage in range(rating±20%)	
2. Input power wire connection		Please confirm the power cord plug well at power source	
	abnormal	and machine.	
3.	Input voltage unstable	Voltage shutdown and return suddenly.	

![](_page_22_Picture_0.jpeg)

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### 3.1.2. Error Code: 02 - Temperature Sensor Abnormal

![](_page_22_Picture_4.jpeg)

**Description:** Motor Controller internal sensor is abnormal. **Analysis and Solutions:** Replace motor driver.

![](_page_23_Picture_0.jpeg)

### 3.1.3. Error Code: 04 - Output Over Current

![](_page_23_Picture_4.jpeg)

**Description:** Motor controller output current is overload, over than ratingX200 (M-7 rating 9.6A / M-8 rating 13A)

### Analysis and Solutions:

 Running belt / deck wear and tear: to make motor controller output current overload, shall be replace running belt or deck, need to check the loading current after replaced, normally loading current for under 100kg test person, test at speed 8km/h, the current show as below:

	New Machine	Light wear / tear	Mid. wear / tear	Need to replace
Loading	5↓	6↓	7.5↓	7.5↑
Current				

- **2. Motor controller abnormal:** motor controller sensor abnormal, still occur error at normal loading current need to replace motor controller.
- **3. Motor lose phase:** motor internal wiring open circuit or motor connect wires U V W pure onnection to make high loading current, please motor connect to inverter well or measure the motor U-V / V-W / W-U, shall be short circuit and low resistance not open circuit.

![](_page_24_Picture_0.jpeg)

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### 3.1.4. Error Code: 06 – Input Over Voltage

![](_page_24_Picture_4.jpeg)

Description: input AC voltage is too high

### **Analysis and Solutions:**

- 1. Input voltage abnormal: please confirm input voltage shall be under 250 Vac normally.
- 2. Motor return voltage is too high: at high incline level with high user weight and high speed will be cause the error occur, need to adjust motor controller parameter or change power eliminate resistor.(please contact Circle Fitness)
- 3.1.5. Error Code: 08 Grounding Failure

FG 🛃	English	
(	SROUN Errc	DING FAILURE r Code: 08
	Training Courses	Goal Training Heart Rate Control
	Physical Test	Virtual Connect Multimedia

**Description:** Motor phase is failure and current is leakage.

### Analysis and Solutions:

Motor connection wire do not connect well and touch to the main frame: please check motor connection.

![](_page_25_Picture_0.jpeg)

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### 3.1.6. Error Code: 09 – Over Heat

![](_page_25_Picture_3.jpeg)

Description: Motor controller is over heat.

### Analysis and Solutions:

**Running belt/deck is worn and torn** so motor controller output current is overload, running belt or deck at medium worn and torn for a long time and machine use very often maybe cause the error occur, shall be replace running belt or deck, need to check the loading current after replaced, normally loading current for under 100kg test person, test at speed 8km/h, the current show as below:

	New Machine	Light wear / tear	Mid. wear / tear	Need to replace
Loading Current	5↓	6↓	7.5↓	7.5 ↑

![](_page_26_Picture_0.jpeg)

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### 3.1.7. Error Code: 0A - Motor Overload

![](_page_26_Picture_3.jpeg)

**Description:** Motor controller is overload over rating X110 for few minutes(M-7 rating 9.6A / M-8 rating 13A)

### Analysis and Solutions:

**Running belt/deck is worn and torn** so motor controller output current is overload, running belt or deck at high worn and torn and machine use very often maybe cause the error occur, shall be replace running belt or deck, need to check the loading current after replaced, normally loading current for under 100kg test person, test at speed 8km/h, the current show as below:

	New Machine	Light wear / tear	Mid. wear / tear	Need to replace
Loading	5↓	6↓	7.5↓	7.5 ↑
Current				

![](_page_27_Picture_0.jpeg)

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### 3.1.8. Error Code: 0B - Inverter Overload

![](_page_27_Picture_4.jpeg)

### **Description:**

Motor controller overload over ratingX150 for few minutes(M-7 rating 9.6A / M-8 rating 13A)

### Analysis and Solutions:

**Running belt/deck is worn and torn** so motor controller output current overload, running belt or deck at high worn and torn and machine use very often maybe cause the error occur, shall be replace running belt or deck, need to check the loading current after replaced, normally loading current for under 100kg test person, test at speed 8km/h, the current show as below:

	New Machine	Light wear / tear	Mid. wear / tear	Need to replace
Loading	5↓	6↓	7.5↓	7.5 ↑
Current				

![](_page_28_Picture_0.jpeg)

### 3.1.9. Error Code: 0E – Dynamic Brake Abnormal

![](_page_28_Picture_4.jpeg)

**Description:** Power eliminate resistor is abnormal. **Analysis and Solutions:** Replace motor controller.

### 3.1.10. Error Code: 21 – Inverter Flash Abnormal

![](_page_28_Picture_7.jpeg)

**Description:** Flash device of the motor controller is abnormal. **Analysis and Solutions:** Replace motor controller.

![](_page_29_Picture_0.jpeg)

### 3.1.11. Error Code: 22 -Inverter Flash Abnormal

![](_page_29_Picture_4.jpeg)

**Description:** EEPROM of the motor controller is abnormal. **Analysis and Solutions:** Replace motor controller.

### 3.1.12. Error Code: 25 – Emergency Circuit Error

![](_page_29_Picture_7.jpeg)

Description: Emergency stop event occur from motor controller.

### **Analysis and Solutions:**

**Console did not catch the emergency device event but motor controller caught.** This error message will auto eliminate after motor controller back to normal condition.

Emergency stop device circuit did not connect to motor controller: Please check wire connection.

![](_page_30_Picture_0.jpeg)

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### 3.1.13. Error Code: FE - Incline

![](_page_30_Picture_4.jpeg)

Description: Incline level cannot reach the preset position.

### **Analysis and Solutions:**

- 1. **Input AC voltage is too low:** input AC voltage shall be at rating±20%,please check power input.
- 2. Incline motor VR abnormal: replace incline motor.