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Johnson Industries (Shanghai) Co., Ltd

XR/XER/XIR Console Service Manual



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1.1 SERIAL NUMBER LOCATION

SERIAL NUMBER LOCATIONS



Before proceeding, find the serial numbers located on barcode stickers and enter them in the spaces provided below.

CONSOLE SERIAL NUMBER

FRAME SERIAL NUMBER

CONSOLE

☐ XR ☐ XER ☐ XIR

MODEL

☐ TF30	☐ TF50	MATRIX FOLDING TREADMILL
☐ T50	☐ T70	MATRIX NON-FOLDING TREADMILL
☐ E30	☐ E50	MATRIX SUSPENSION ELLIPTICAL TRAINER
☐ A30	☐ A50	MATRIX ASCENT TRAINER LOWER BODY
☐ R30	☐ R50	MATRIX RECUMBENT CYCLE
☐ U30	☐ U50	MATRIX UPRIGHT CYCLE

* Use the information above when calling for service.

1.2 XR/XIR/XER Console Overview



2.1 XR Console Description



Note: There is a thin protective sheet of clear plastic on the overlay of the console that should be removed before use.

A) LCD DISPLAY WINDOW: Displays workout feedback, program profile and more.

B) GO/PAUSE : Press to start, pause or resume your workout.

C) STOP : Press to stop your workout. Press and hold for 3 seconds to reset console.

D) ENTER : Confirm each program setting. Press to change display feedback during workout. Press and hold to scan.

E) ARROWS : used to adjust program settings.

F) NUMBER KEYPAD: Used to enter xID login, to enter program data during program setup and to adjust speed / resistance level during workout. Press check mark to confirm setting.

G) BACK : Go to previous program setting.

H) WIFI CONNECT: Press to connect your wireless internet connection. See BEFORE YOU BEGIN section for more info.

I) PASSPORT CONNECT & SYNC: Press to connect your Passport box for Virtual Active programming. Passport Player is sold at your Retailer or at www.passportplayer.com

J) ENERGY SAVER LIGHT: Indicates if machine is in energy saver mode. Press any key to wake up the machine.

K) READING RACK: Holds reading material or electronic device.

2.2 XR Display Description

A) TIME: Is always shown in the larger central portion of the display. Shown as minutes: seconds. View the time remaining or the time elapsed in your workout.

B) INCLINE: Shown as percent. Indicates the incline of your walking or running surface (Treadmills and Ascents only).

C) DISTANCE: Shown as Miles or Kilometers based on your default setting. Indicates distance traveled or distance remaining during your workout.

D) SPEED: Shown as MPH or KPH based on your default setting. Indicates how fast the user is moving.

E) CALORIES: Total calories burned or calories remaining to burn during your workout.

F) HEART RATE: Shown as BPM (beats per minute). Used to monitor your heart rate (when wearing a wireless heart rate strap or when contact is made with both pulse grips).

G) RESISTANCE (RES): Shows the current resistance level (Bikes, Ellipticals, Ascents only).

H) RPM: Revolutions Per Minute (Bikes, Ellipticals, Ascents only).

I) WATTS: Displays current user power output (Bikes, Ellipticals, Ascents only).

J) PACE: Indicates how many minutes it takes to complete a mile based on your current speed (Treadmills only).

K) PROGRAM PROFILE: The dot matrix will show the program profile as you progress through your workout. Profile represents incline, resistance or speed (depending on model type and workout type).

L) PASSPORT: Indicates Passport box connection is present.

M) WIFI: Indicates wireless connection is present and the strength (low, medium, high). Flashes when WIFI is trying to connect.

2.3 Set up xID Account for Via Fit Connectivity

Creating an xID account will allow you to save and share workout data online at **www.ViaFitness.com**. Up to four users can be saved on a machine. This process is the first step in connecting your equipment. It must be done from a computer, tablet, or mobile device that is connected to the internet.

- 1) Visit the web site: **www.ViaFitness.com**
- 2) Once at the web site, select the CONNECT YOUR EQUIPMENT option on the top menu bar.
- 3) The first step in connecting your equipment will be creating your xID account. This will be your login to Via Fit.
- 4) Enter your phone number or another easy-to-remember 10-14 digit number. This will be your account number. Fill in your profile information to finish the xID account setup process. You will be asked to provide an email address not associated with any other xID account. Check your email after the set-up process for a link to validate your account.

2.4 Connect WIFI

Once you have created your xID account, you will be able to move on to activating the WIFI on your equipment. Reminder, this requires you to use your computer, tablet, or mobile device that is connected to the internet.

- 1) Press and hold for 3-5 seconds until you see the message ACTIVATED on your screen.
- 2) On your computer or other device, go to your WIFI settings. You should select the network with your model name. Doing this enables you to connect your equipment to your wireless network.
- 3) A new window will pop up with the list of wireless networks your equipment can see. Select your home WIFI network and connect.
- 4) The remaining step is to reconnect your computer or other device back to your WIFI network. Go to your settings again and connect as you normally would.

2.5 XR Console Getting Started

- 1) Check to make sure no objects are nearby that will hinder the movement of the equipment.
- 2) Plug in the power cord and turn the equipment ON (Some equipment does not have a power switch).

TREADMILLS ONLY:

- 1) Stand on the side rails of the treadmill.
- 2) Attach the safety key clip to part of your clothing making sure that it is secure and will not become detached during operation.
- 3) Insert the safety key into the safety keyhole in the console.

ALL MODELS:

When you log in for the first time as User 1-4, you will be prompted to enter your xID information.

- 1) Enter your xID account number using the keypad. After the final input, press “√”. You can press← to delete a number.
- 2) Enter your Passcode using the keypad. After the final input, press “√”.
- 3) You are now logged into your xID.

A) QUICK START UP

Press “Go/Pause” to begin working out. Time, distance, and calories will all count up from zero.

B) SELECT A PROGRAM

- 1) Select a PROGRAM using “up/down” and press √.
- 2) Set workout program information using “up/down” and press√ after each selection.
- 3) Press “Go/Pause” to begin workout.

FINISHING YOUR WORKOUT

When your workout is complete, the display will flash “WORKOUT COMPLETE” and beep. Your workout information will stay displayed on the console for 30 seconds and then reset.

TO CLEAR SELECTION/RESET THE CONSOLE

Hold “stop” for 3 seconds.

3.1 Initial Setup

When the console is first powered on, it will start in setup wizard.

Step1:

Press UP/DOWN key to select language and press ENTER to move on to the next setting for Machine type



Step2:

Press UP/DOWN key to select machine type and press ENTER to save.



Step3:

Press UP/DOWN key to select machine unit (KM or Mile)
And press ENTER to complete setup wizard.



3.2 How to Enter Engineer Mode

Press incline+ and speed- 3seconds to enter engineer mode (TM).
Press resistance+ and resistance- 3seconds to enter engineer mode(BK&EP&AS)

Use “up” and “down” keys to scroll menu..

- ENG0** DISPLAY TEST
- ENG1** HARDWARE TEST
- ENG2** SWITCH FUNCTION
- ENG3** INFORMATION
- ENG4** SET DAPI

To select, press “enter” to into next level of menu options.
Press “STOP” for 3 seconds to return to previous menu.



3.3 How to Set WIFI

Step 1	Keep pressing WIFI icon for 3s, reset WIFI.	 
Step 2	Find WIFI hotspot "MATRIX XR", on top of webpage, connect it manually.	
Step 3	Find web address 10.10.100.254, and go.	
Step 4	Choose the router needs to connect, enter the password. The successfully connection display is as below.	

Step 5	Waiting for 1~2 minutes (because this WIFI module connection program and startup time need 1-2 minutes), when the WIFI icon is no longer flashing, said the WIFI connection is successful. Under normal circumstances, to press the console up & down buttons can choice “Updating user info”. If not, please reconnect the WIFI.	 
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CHAPTER 3: XR CONSOLE ENGINEER MODE

3.4 How to Reset WIFI

Step 1	Reset console WIFI, found MATRIX XR, connecting	
Step 2	After connecting, input address in webpage : http://10.10.100.254/m2m/home.html	
Step 3	Enter click “ Device Management ”, WIFI versions is 2.050	
	if need update WIFI, choose "Update Firmware", click "browse", choose firmware , click "Apply", after WIFI update, you can see following:	

3.5 Engineer Function Description

MODE	FUNCTION	DESCRIPTION	
ENG 0	Display Test	Start Key – LCD/LED on including ERP Stop Key – LCD/LED off including ERP Any Other Key - Will show on the display window. Hold the STOP key for 3 seconds to return to the ENG 0 Menu.	
ENG 1	Hardware Test	Resistance or drive Motor Test. Incline motor test Heart rate grip test	
ENG 2	Switch Function	P1- Unit setting. (KM or Mile). Press Enter to save P2. Language selection (Use ↑↓ button to select language) Press Enter to save P3. Machine selection (Use↑ ↓ button to select a machine type from Treadmill, Climbmill, Elliptical, Bike or Ascent trainer.) Press Enter to save P4. Model selection. (Use ↑↓ button to select a model) Press Enter to save P5. Energy mode selection. (Use ↑↓ button to switch between ON/OFF) Press Enter to save P6. First Boot selection (Switch “First Boot” Flag using ↑↓ button) Note: Model default → R30 ERP default(energy mode)→ ERP ON	      

ENG 3	Information	- Accumulated information(Distance &Time) - LCB software version - UCB software version	 
ENG 4	SET DAPI	There are "Production", "QA", "Staging" and "DEV" servers. Must to select "Production"	 

3.6 Other Information

PASSPORT SYNC

In standby page to hold Passport icon 3 seconds console will showing "RF SYNC" once completed console display "PASSPORT READY"

REBOOT

In standby page, press 2 0 0 9. The console will show "REBOOTING" and reset settings, including Language, Model and Unit. The console will return to the standby page once the reboot is complete.



WORKOUT TIME RANGE

The workout time range that you can set on the XR console is 5-99 min.

3.7 Software Updating

1	Updating console software with USB Flash Driver, software releases will be seen on web.	
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2	Fill U disk with the well-prepared and updated software. Insert USB Flash Driver into USB port, you will see “software update press enter”; press enter and then software will update automatically.	
3	If software be updated successfully, console will return to user screen. Remove USB flash disk.	

CHAPTER 4: XER /XIR CONSOLE INSTRUCCION

4.1 XER/XIR Console Description



4.1.1 XER/XIR Console

Note: There is a thin protective sheet of clear plastic on the overlay of the console that should be removed before use. The XER and XIR has a fully integrated touch screen display. All information required for workouts is explained on screen. Exploration of the interface is highly encouraged.

A) GO: Press to begin a quick start program.

B) PROGRAM BUTTONS: Press to select from a number of preset programs.

C) USER MENU: Select an existing User, Guest or Add User.

D) USER SETUP: Allows you to edit User Information.

E) SETTINGS MENU: Access to Volume Controls, Bluetooth Pairing, WIFI Setup, Sync Passport, Machine defaults and more.

F) HEADPHONE JACK: Plug your headphones into the console to use them instead of the console speakers.

G) AUDIO IN: Plug your media player into the console using the included audio adaptor cable.

H) ENERGY SAVER LIGHT: Indicates if machine is in energy saver mode. Press a speed/incline/resistance button to wake up the machine.

I) USB PORT: Access media from compatible devices (XIR only), charging devices and for software updates (Will not charge USB devices that draw more than 1 amp).

J) SPEAKERS: Audio plays through the speakers.

K) READING RACK: Holds reading material or electronic device.

4.1.2 Initial Setup

When you power on the console for the first time you will be prompted to perform initial setup.

1) Select your language and touch → to confirm.

4.1.3 WIFI Setup

2) Choose from the available wireless networks detected and shown on screen. If you do not see your network, you can add it manually via the OTHER option. If you do not want to set up WIFI at this time, touch →.

3) Use the keyboard to enter your WIFI network password. Touch ✓ to confirm.

4) WIFI connection status and signal strength will be indicated by the WIFI symbol in the upper right corner of the display.

4.1.4 Model Setup

5) Select your model type and touch → to confirm

6) Select your model number and touch → to confirm.

7) Enter your console and frame serial numbers and touch → to confirm.

4.1.5 Date and Time Setup

8) If the console has been connected to WIFI, it will detect your location and fill in time and date info automatically.

9) Change any time and date settings as desired and touch → to confirm.

4.1.6 Set up xID Account for Via Fit Connectivity

Creating an xID account will allow you to save and share workout data online at **ww.ViaFitness.com**

- 1) Create and save up to four xID accounts directly from the console.
- 2) If you already have an xID, touch **Log In**. To continue without creating an xID touch **Skip xID**.
- 3) Enter your phone number or another easy-to-remember 10-14 digit number. This will be your account number. Touch→ to confirm.
- 4) Create an easy to remember 4-digit passcode. Touch to confirm.
- 5) Enter your email address. This must be an email address not associated with any other xID account. Touch → to confirm.
- 6) Continue entering the user information, Touch→ to confirm.
- 7) Confirm your information and select “**I accept the terms and conditions**” box to review the terms and Conditions. Touch✓ to complete xID setup.

CHAPTER 4: XER /XIR CONSOLE INSTRUCTION



GO SCREEN

USER MENU

-  Touch to opens user menu. Select a **USER**, **ADD A USER** or select **GUEST** to workout anonymously.
-  Touch to edit user settings.

SETTINGS MENU

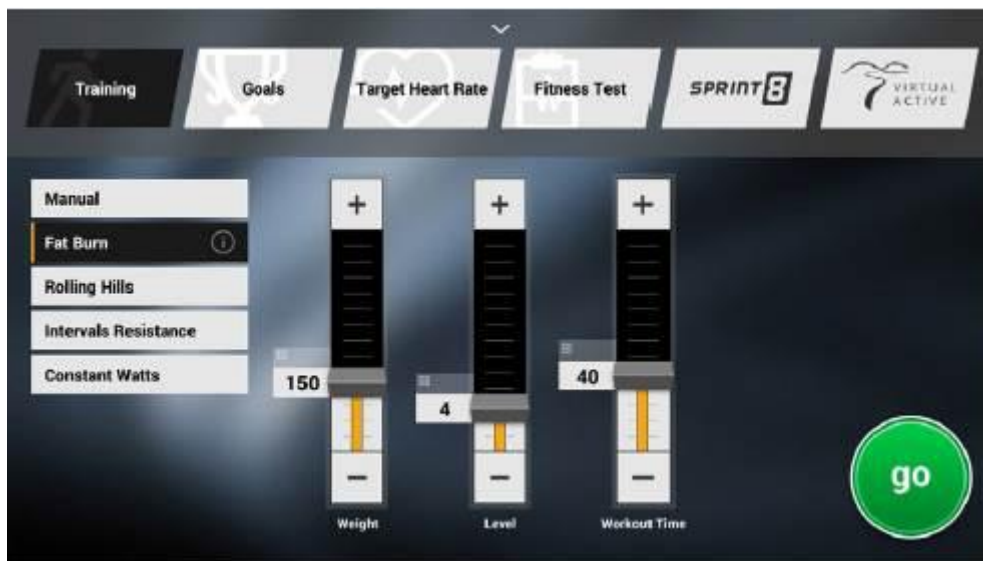
-  Touch to opens settings menu.
-  Touch to pair a **BLUETOOTH** device.
-  Touch to enter **WI-FI** setup.
-  Touch to sync **PASSPORT PLAYER**. See page XX.
-  Touch to access more **SETTINGS**.

4.1.7 Getting Started

Option 1: Touch **GO** to begin working out immediately. .

Option 2: Touch the **WORKOUT CATEGORY** button of your choice to customize your workout.

CHAPTER 4: XER /XIR CONSOLE INSTRUCTION



PROGRAM SETUP

- 3) After selecting a **WORKOUT CATEGORY** button, select one of the **PROGRAMS** listed to the left. For more information on a selected program and touch icon.
- 4) Use the **SLIDER CONTROLS** to adjust your program settings.
- 5) Touch above number to open a keypad to enter numbers manually.
- 6) Touch "↓" to return to the **GO SCREEN**.
- 7) Touch **GO** to begin your workout.



HOMESCREEN

- The **USERNAME** or **GUEST** is shown in the upper left corner.
- Touch  to change **WORKOUT STATISTICS** displayed at the bottom of the screen.
- Touch  to go back to the **home screen** whenever you're using an app.
- Touch  to adjust **VOLUME**, pair a **BLUETOOTH** device or to change **AUDIO SOURCE** (TV, My Media, Virtual Active, etc.).
- Touch    to increase or decrease the intensity level, speed or incline.
- Touch  to use the keypad to set intensity level, speed or incline. Press  to confirm change.
- Touch  to change intensity level, speed or incline back to previous setting.
- Touch  to temporarily pause your workout and touch  to resume.
NOTE: After resuming, speed, incline and intensity levels will be reset.
- While paused, touch  to end workout.
- Touch   to increase or decrease the duration of your workout.
- Touch  to enter cool down mode. Cool down lasts for a few minutes while reducing the workout intensity, allowing your body to recover from your workout.
- Touch  to lock the screen in order to prevent accidental screen touches from being implemented. Touch it again to unlock the screen and allow screen touches.

4.1.8 Bluetooth (XIR Only)*

The XIR console can connect via Bluetooth to one device per category:

- Media Players (Music only)
- Speakers / Headphones
- Heart Rate Monitors

4.1.9 To Connect Your Compatible Device:

- 1) **BLUETOOTH PAIRING** can be accessed from the **SETTINGS MENU**.
- 2) Turn on Bluetooth on your device and make sure it is discoverable.
- 3) Touch the appropriate category from the list above. The Bluetooth device should appear to the right after a few seconds.
- 4) Touch the device name and follow the onscreen prompts to pair the device. Once paired, the device name will be highlighted and Bluetooth icon will appear in the top right corner of the menu bar.
- 5) Connected Media Players or phones can stream audio in the **MY MEDIA APP**.
- 6) You may also connect a Bluetooth Heart Rate Strap.

4.1.10 USB Audio/Video (XIR Only)

The XIR console can stream media in the **MY MEDIA APP** via USB. Supported devices include USB flash drives, Windows phones/tablets, and Android phones/tablets.

The media types supported are:

Audio

- AAC (.3GP, .MP4, .M4A, .AAC)
- MP3 (.MP3)
- Wave (.WAV)

Video

- H.263 (.3GP, .MP4)
- H.264 (.MP4, .MOV)

TO PLAY MEDIA DURING YOUR WORKOUT:

- 1) Connect your device to the USB port located beneath the display and make sure it is unlocked.
- 2) Open the **MY MEDIA APP** and select the USB device name from the Media Source list.
- 3) Select the Audio or Video tab at the top to access your files and play your media.

4.1.11 Passport™ Media Player

The Passport player, featuring Virtual Active™ technology, is a high definition experience that uses real destination footage and matching ambient sounds from stunning destinations around the world. The ultimate in workout entertainment, Passport lets you escape the confines of a regular workout routine while enjoying a dynamic experience. A Passport player is available for purchase separately from your Matrix Retailer. Additional courses are available from your Matrix Retailer. For more information, go to: www.passportplayer.com

SYNCING CONSOLE WITH PASSPORT

- 1) Use the arrow keys on the Passport remote to scroll to the setup icon and press select.
- 2) Follow the on-screen prompts and when prompted, return to the console and open the

SETTINGS MENU and touch **PASSPORT SYNC.**

- 3) When the passport sync is complete, the passport icon will appear in the top right corner of the menu bar. NOTE: See PASSPORT OWNER'S MANUAL for more information.

4.1.12 Audio In/Out

You can play audio through the console speakers by connecting a device to the audio in jack located beneath the display. Plug your headphones into the audio out jack to use them instead of the console speakers.

CHAPTER 4: XIR/ XER CONSOLE INSTRUCTION

4.2 Initial Setup

Please refer to sections 4.1.2-4.1.5.



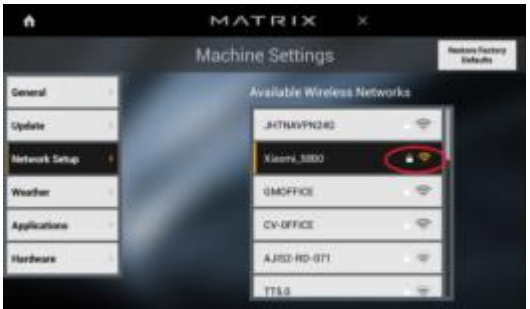
Step 1	Select Language	
Step 2	Network Setup: Select SSID then enter Password if necessary.	
Step 3	Machine Selection:	

Step 4	Model Type Setup: refer below model type list.	
Step 5	Date & Time Setup Complete setup and back to G0/Welcome page	

Notes: The console can store a maximum of four (4) users.

4.3 WIFI Setup

Step 1	On the “GO” interface, click “Settings”, then select “Machine settings”:	
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Step 2	When it goes to “Machine settings”, select “Network setup”, click “WIFI setup”	
Step 3	Click the SSID needs to connect:	
Step 4	Enter the password, click “Enter”	
Step 5	Successfully connection to WIFI display is as below	
Step 6	Choose “Weather” item, click “refresh”, if can refresh and get new address, it means the connection is successful.	

4.4 Model Type List

Model	Console	Model ID
RECUMBENT (R)	XER	R30XER/ R50XER
	XIR	R30XIR/ R50XIR
UPRIGHT (U)	XER	U30XER/ U50XER
	XIR	U30XIR/ U50XIR
ELLIPTICAL (E)	XER	SE30XER/ SE50XER
	XIR	SE30XIR/ SE50XIR
ASCENT (A)	XER	A30XER/ A50XER
	XIR	A30XIR/ A50XIR
Treadmill (T)	XER	TF30XER / TF50XER
		T50XER/ T70XER
	XIR	TF30XIR / TF50XIR
		T50XIR/ T70XIR
Climbmill (C)	XER	C50XER
	XIR	C50XIR

CHAPTER 5: XIR/ XER CONSOLE SETTINGS

Machine settings -- Note: Access by tapping Machine Settings from the onscreen settings menu.



5.1 General

Category	Name	Default	Range	Units	Comments
General	Accumulated Time	0.00	--	Hours	Read Only
	Accumulated Distance	0.00	--	Miles/ KM	Read Only
	Time Zone	Central Time	--	--	Values are scrollable from a drop down list
	Date	RTC Date	YY: 2000-2099 MM:01-12 DD:01-31	--	Enter using keypad (Birthday keypad).
	Time	RTC Time	00-23:00-59:00-59	12/ 24 Hours	Read Only
	Time Format	12 Hour	12 Hour, 24 Hour	--	
	Language Setup	English (U.S.)	See Languages Table		Scrollable list.
	Software Version		Software Updater, Native Libraries, Main Apps, 3rd Party Apps, Media Files, Sprint 8, Keyboard Apps	Major Minor Build Revision	Read Only. Current software, pulled from the update package manifest.
	Firmware Versions		OS Version (from Manufacturer), IO Version, LCB Version		Read Only. Current software, pulled from the hardware.
	Floors Climbed	0		Floors	

CHAPTER 5: XIR/ XER CONSOLE SETTINGS

5.2 Update

Category	Name	Default	Range	Units	Comments
Update	Automatic Update	Check	Check/No Check	--	If Automatic Update is checked the console checks for updates at 1:00am or if it's been more than 24 hours since the last check. If an update is available the console downloads it. When all update files are downloaded the console waits for the following events to install the updates: when the console goes into ErP or Demo Video Mode (it installs the updates then enters these modes); if the user powers down the console then install the update when it powers back on.
	Update	Update From USB	Update From USB/Install	--	Check a connected USB drive for updates. If updates are found they will be listed under Available Updates and the button will display Install.
	Check For Updates	Check For Updates	Check For Updates/Install	--	Check DAPI server for updates. If updates are found they will be listed under Available Updates and the button will display Install.
	Available Updates	--	Software Updater, Native Libraries, Main Apps, 3rd Party Apps, Media Files, Sprint 8, Keyboard Apps	Major.Minor .Build.Revision	List packages that have updates available and their version

CHAPTER 5: XIR/ XER CONSOLE SETTINGS

5.3 Network Setup

Category	Name	Default	Range	Units	Comments
Network Setup	WIFI Mac Address	Hardware Specified	0.0.0.0.0.0 - 255.255.255.255.255.255	Byte.Byte.Byte.Byte.Byte. ByteIn Hex	Mac address is polled from the installed hardware.Read Only, should not show up if not connected to WIFI.
	WIFI Setup	--	--	--	Goes to the WIFI setup page.

5.4 Network Setup (WIFI Setup)

Category	Name	Default	Range	Units	Comments
Network Setup (WIFI Setup)	Available Wireless Networks	--	Wireless networks in range with 'Other Network' always shown at the bottom of the list in order for the user to specify their own network.	If the user selects 'Other Network' they should be prompted to enter the Network Name, Password and the security protocol from None, WEP, WPA, WPA2, WPAPSK, WPA2PSK.If the user selects the network the console is currently connected to (indicated by a different colored WIFI symbol) they should be prompted with the option to forget the settings for that network.	Follows the same look and function as First Time Setup for WIFI setup: lists available wireless networks, their signal strength on the console and which one the console is connected to if it is connected to one. Tapping a network name has the console prompt the user to enter the network password if there is one required. If the user inputs the wrong credentials the system notifies them that the console was unable to connect to the network and they are returned to the network list. Additionally, tapping on the network the console is currently connected to (indicated by a different colored WIFI symbol) will present a dialog with the option to forget the settings for that network..

CHAPTER 5: XIR/ XER CONSOLE SETTINGS

5.5 Weather

Category	Name	Default	Range	Units	Comments
Weather Note: Units (Fahrenheit/Imperial vs. Celsius/Metric) are determined by language - region. If a user authenticates using xID, the units will respect the preferred units as set in the user's profile settings. If guest user, the setting in service mode should be respected.	Enable Alerts	Check	Check/No Check	--	If it has a weather alert from the website, the alert mark will be in red on the workout screen.
	Refresh	--	--	--	Tap to refresh the web connection to Bing. Works the same as the refresh button in a web browser.
	Default City	Current Location which is determined by either the location stored in the console or the IP Address of the console if a location has not been set.	--	GPS Coordinates Note: May or may not display a location other than GPS coordinates. This is an issue with Bing as opposed to the web app.	Search by touching and dragging on the map. Double touch a spot on the map to set as your location.

5.6 Applications

Category	Name	Default	Range	Units	Comments
Applications	Application Setup	Show all available apps	Move, Hide/Make Inactive, Locked	--	Displays a grid of the app buttons. Tapping and holding down on an app will make it movable to other spots (other apps will shift automatically). This app can be moved to the 'Inactive' column in which case it will not appear on the run screen. If an app button is dark with a padlock it is locked and cannot be moved.

CHAPTER 5: XIR/ XER CONSOLE SETTINGS

5.7 Hardware

Category	Name	Default	Range	Units	Comments
Hardware	ErP	No Check	Check/No Check	--	Alternates between ErP which puts the console in a low power mode and launching the Demo Video. When checked the console goes into ErP, when not checked the console launches the Demo Video. These actions occur after a time of inactivity (no workout, touch events, etc.) determined by the ErP Timeout setting. Pressing any physical key wakes up the console from ErP or the Demo Video and returns it to the Home/Go Screen. The Demo Video can also be exited by touching the screen.
	ErP Timeout	15	1-60	Minutes	Amount of time after which the console enters a low power mode or the Demo Video
	Backlight Brightness	100	0-100	--	Set the brightness of the screen.
	Master Volume	5	0-30	--	All apps have their volume maxed, this sets the system-wide volume. The volume matches the DQE standard. Does not affect the system beep volume.
	Hours Since Chain Was Last Lubed	0.00		Hours	

5.8 Restore Factory Defaults

Always available, not in its own tab .

Category	Name	Default	Range	Units	Comments
Restore Factory Defaults Always available, not in it's own tab	Restore Factory Defaults	--	--	--	Resets various options, counters, and configuration values to defaults given to the factory for production. See the Factory Defaults Table for a list of options and values. It also resets the First Time Setup wizard to run again

CHAPTER 6: XIR/ XER CONSOLE ENGINEERING MODE

6.1 How to enter Engineering Mode

Double-tapping the bottom left then bottom right corners of the touch screen when in Machine Settings or Service Mode.



6.2 Engineering Mode instruction

Engineering Mode					
General	Screen Timeout	Accumulated Time	Accumulated Distance	Serial Number-Console	Serial Number-Frame
	Demo Mode	Show Setup Wizard	Date	Time	Time Format
	Language Setup	Social Network Post	Software Versions	Firmware Versions	DAPI Environment
	Floors Climbed				
Workout	Keyboard Disable Threshold	Maximum Workout Time	Maximum Workout Calories	Maximum Workout Distance	Pause Time
	Maximum Speed	Maximum Incline	Cool Down Time	Maximum Cool Down Adjustment Time	
	E-Stop Enable	Maximum Level	E-Stop Sensitivity	Maximum Workout Floors	
Setup Default	Level	Age	Weight	Gender	Default Workout Time
	Default Workout Calories	Default Workout Distance	Default Web page		
Update	Automatic Update	Update from USB	Check For Update	Available Updates	
Restore Factory Defaults Always	Restore Factory Defaults				

available, not in it's own tab.					
Network Setup	WIFI Mac Address	WIFI Setup			
Network Setup (WIFI Setup)	Available Wireless Networks				
Weather Note: Units (Fahrenheit/Imperial vs. Celsius/Metric) are determined by language - region. If a user authenticates using xID, the units will respect the preferred units as set in the user's profile settings. If guest user, the setting in service mode should be respected.	Enable Alerts	Refresh	Default City		
Applications	Application Setup				
Calibration	Run Machine*				
	Disable Control Zone	Disable IR Sensor	Control Zone Threshold	Control Zone Pressure	
	Frame IR Sensor Frequency				
Hardware	ISB Connection Mode	ERP	ERP Timeout	Backlight Brightness	Key Test
	Play Key Sound	Play Workout Countdown Sound	Master Volume	Headphone Insertions	Reset
	Hours Since Chain Was Last Lubed				Detect User
Service	Service History				
Errors	Error Log				
Advance Settings	Demo Mode		Disable Error Codes		Show Setup Wizard
	Enable Climbmill		Model		

The categories in Engineering Mode are almost same with Machine settings and Service Mode.

*Follow these steps to start touchscreen calibration: While in Engineering Mode, hold down the hand grip incline up and speed down buttons (treadmill) or resistance up and resistance down buttons (bike/elliptical) for three seconds

CHAPTER 7: XIR/ XER CONSOLE SERVICE MODE

7.1 How to enter Service Mode

Hold “Incline Up”+ “Speed Down” on Treadmills and “Resistance Up”+ “Resistance Down” on AURE for 5 seconds on the Welcome/Go Screen.



For TM



For Bike



For EP without incline



For EP with incline



For Climbmill

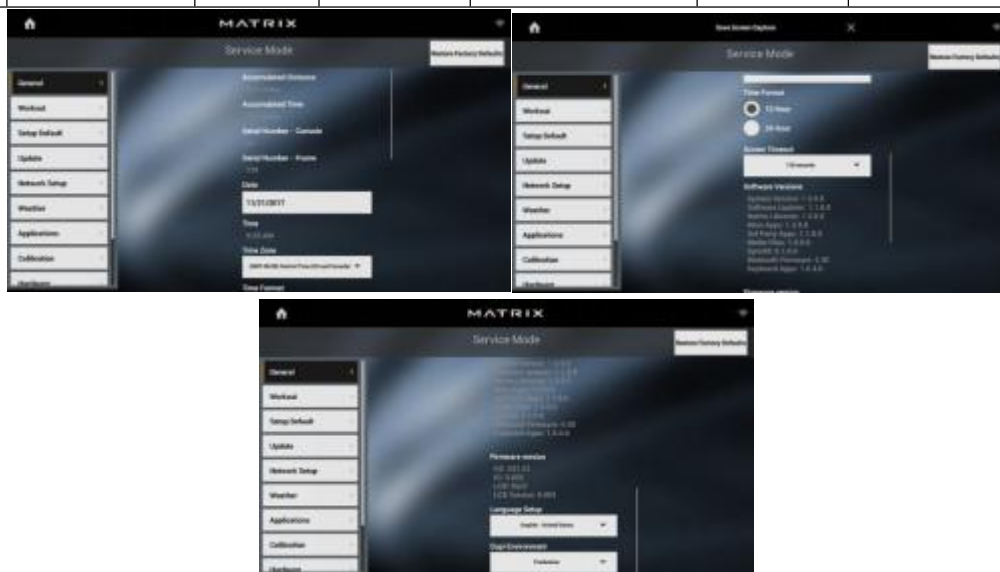
Notes: (T) Treadmill, (A) Ascent Trainer, (E) Elliptical, (U) upright Bike,(R) Recumbent Bike,(C)Climbmill

CHAPTER 7: XIR/ XER CONSOLE SERVICE MODE

7.2 General

Category	Name	Model	Default	Range	Units	Comments
General	Screen Timeout	TACEUR	120	15, 30, 60, 90, 120, Never	Seconds	Dropdown list. Affects those screens that go to/from the Welcome Screen (Go Screen, Workout Summary Screen, etc.). The exceptions to this are Machine Settings, Service Mode and Engineering Mode which do not timeout.
	Accumulated Time	TACEUR	0.00	0.00 - 596523.00	Hours	Read Only
	Accumulated Distance	TAEUR	0.00	0.00 - 1959556.00 Miles 0.00 - 3153600.00 Km	Miles/ KM	Read Only
	Serial Number - Console	TACEUR	--	XER, XIR	Consoles	Read Only. This combines with the frame number to create a machine identifier that will show up in Viafit. Format is Frame Console, e.g., R30XIR
	Serial Number - Frame	TACEUR	--	A30, A50, U30, U50, R30, R50, E30, E50, TF30, TF50, T50, T70	Frames	Read Only. This combines with the console number to create a machine identifier that will show up in Viafit. Format is Frame Console, e.g., R30XIR
	Demo Mode	TACEUR	No Check	Check/No Check	--	Sets the console into a demo mode that allows the console to emulate the MCB/LCB and ignore errors so that the console software can run. Sets RPM to 30. This does not control the Demo Video, that is done by the ErP setting.
	Show Setup Wizard	TACEUR	No Check	Check/No Check	--	Triggers the First Time Setup Wizard to run on the next boot up.
	Time Zone	TACEUR	Central Time	--	--	Values are scrollable from a drop down list
	Date	TACEU	RTC Date	YY: 2000-2099	--	Enter using keypad

		R		MM:01-12 DD:01-31		(Birthday keypad).
Time	TACEU R	RTC Time		00-23:00-59:00-59	12/ 24 Hours	Read Only
Time Format	TACEU R	12 Hour		12 Hour, 24 Hour	--	
Language Setup	TACEU R	English (U.S.)		See Languages Table		Scrollable list.
Software Version	TACEU R			Software Updater, Native Libraries, Main Apps, 3rd Party Apps, Media Files, Sprint 8, Keyboard Apps	Major Minor Build Revision	Read Only. Current software, pulled from the update package manifest.
Firmware Versions	TACEU R			OS Version (from Manufacturer), IO Version, LCB Version		Read Only. Current software, pulled from the hardware.
DAPI Environment	TACEU R	Production		Dev, QA, Staging, Production	--	Indicates what server (URL) the console connects to for web connected services (workout tracking, web apps, asset management, DAPI).
Floors Climbed	C	0		0-3153600000	Floors	Read Only

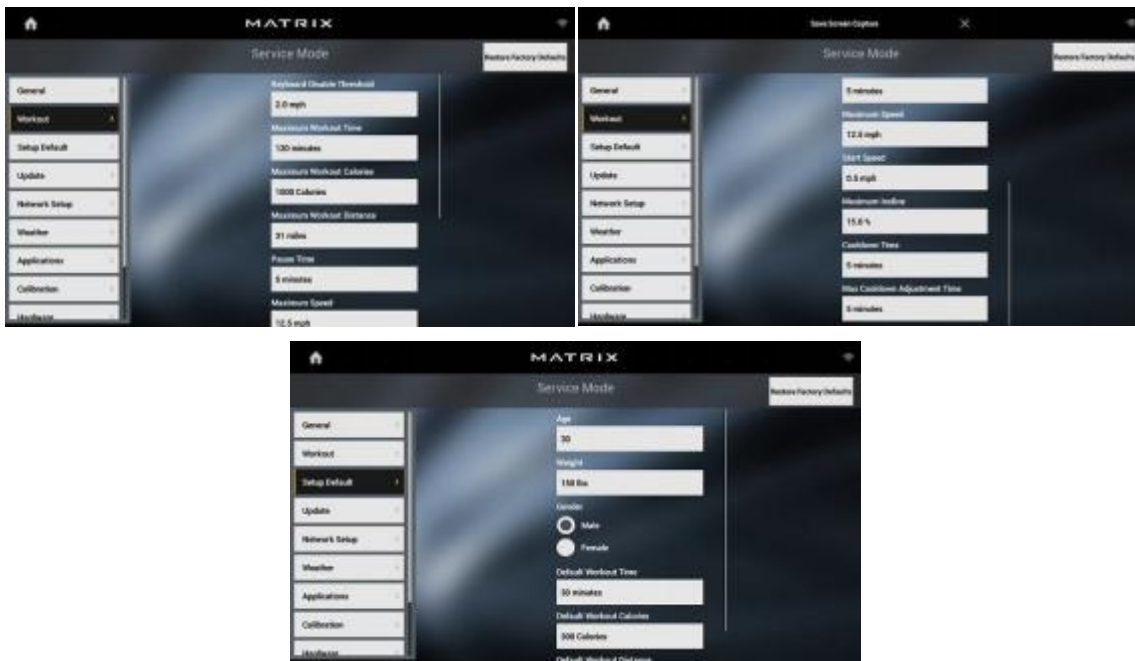


CHAPTER 7: XIR/ XER CONSOLE SERVICE MODE

7.3 Workout

Category	Name	Model	Default	Range	Units	Comments
workout	Keyboard Disable Threshold	T	2.0MPH/3.2KPH	Machine Minimum 4.0MPH/6.4KPH	MPH/KPH	Determines the speed at which the keyboard is disabled on a treadmill. Machine minimum will differ by frame from 0.1MPH(.016KPH) to 0.5MPH(0.8KPH).
	Maximum Workout Time	TACEUR	120	10-120	minutes	--
	Maximum Workout Calories	TACEUR	1000	50-10000	calories	For goal workouts.
	Maximum Workout Distance	TAEUR	31.0mile/50.0 Km	(AEUR) 1.0-62.0Mile /1.0-100.0Km (T) 1.0-31.0Mile /1.0-50.0Km	Miles/Km	For goal workouts.
	Pause Time	TACEUR	5	1-10	minutes	Note: The treadmill should start at the machine minimum speed when resuming from pause.
	Maximum Speed	T	12.5MPH/20.0 KPH	3.1-Machine Max MPH/5.0-Machine Max KPH	MPH/KPH	For Retail Machine Max = 12.5MPH/20.0KPH.
	Start Speed	T	Machine Minimum	Machine Minimum-1.4MPH/ 2.3KPHMPH	MPH/KPH	Machine minimum will depend on information from the system engineer. Can be 0.1-0.5MPH/0.1-0.8KPH. This sets the default speed during workout setup and the speed

						the treadmill will start at if the user presses the 'Go' quick key.
	Maximum Incline	TA	(T)15 (A)100	(T)1.0-15.0 (A)1-100	(T)% Grade (A)%	
	Cool Down Time	TACEUR	5	1-20	Minutes	Maximum times a user can increase the cool down time = Maximum Cool Down Adjustment Time - Cool Down Time
	Maximum Cool Down Adjustment Time	TACEUR	5	1-20	Minutes	Maximum times a user can increase the cool down time = Maximum Cool Down Adjustment Time - Cool Down Time
	Maximum Workout Floors	C	150	15-300	Floors	For goal workouts.Landmarks is exempt from this maximum. It's floors should match the landmark even if it goes above the maximum set here.
	Maximum Level	C	25	10-30		Determines the maximum allowable Resistance/SPM level that can be set manually by a user and automatically by a programmed workout.
	E-Stop Enable	C	Check	Check/No Check		Refers to the Control Zone. Not all Climbmills have a Control Zone so this can be disabled.
	E-Stop Sensitivity	C	100	4-400		Sets the threshold of the Control Zone at which it activates.



CHAPTER 7: XIR/ XER CONSOLE SERVICE MODE

7.4 Setup Default

Category	Name	Default	Range	Units	Comments
Setup Default	Age	30	14-99	Years	
	Weight	150lbs/68kg	(TF30)50-350lbs/22-159kg (TF50/T50/T70)50-400lbs/22-181kg (E30/E50)50-325lbs/22-148kg (A30)50-325lbs/22-148kg (A50)50-350lbs/22-159kg (R30/R50)50-350lbs/22-159kg (U30/U50)50-350lbs/22-159kg	lbs/68kg	--
	Gender	male	Male/female	--	--
	Default workout time	30	5-max	Minutes	For Max See Workout Category
	Default workout calories	300	50-max	Calories	For Max See Workout Category For goal based workout.
	Default	3.0mile/	0.6-max(mile and km)	Miles/Km	For Max See Workout

	workout distance	5.0km			Category For goal based workout.
	Default Workout Floors	20	15-max	Floors	For Max See Workout Category For goal based workout.



7.5 Update

Category	Name	Default	Range	Units	Comments
Update	Automatic Update	Check	Check/No Check	--	If Automatic Update is checked the console checks for updates at 1:00am or if it's been more than 24 hours since the last check. If an update is available the console downloads it. When all update files are downloaded the console waits for the following events to install the updates: when the console goes into ErP or Demo Video Mode (it installs the updates then enters these modes); if the user powers down the console then install the update when it powers back on.
	Update From USB	Update From USB	Update From USB/Install	--	Check a connected USB drive for updates. If updates are found they will be listed under Available Updates and the button will display Install.
	Check For Updates	Check For Updates	Check For Updates/Install	--	Check DAPI server for updates. If updates are found they will be

					listed under Available Updates and the button will display Install.
	Available Updates	30	Software Updater, Native Libraries, Main Apps, 3rd Party Apps, Media Files, Sprint 8, Keyboard Apps	Major.Minor.Build.Revision	List packages that have updates available and their version
	Default workout calories	300	50-max	Calories	For Max See Workout Category For goal based workout.
	Default workout distance	3.0mile/5.0km	0.6-max(mile and km)	Miles/Km	For Max See Workout Category For goal based workout.



Insert well-prepared USB flash driver into console USB, select “automatic update”, software can be updated.

More details please refer to 2.4

CHAPTER 7: XIR/ XER CONSOLE SERVICE MODE

7.6 Network Setup

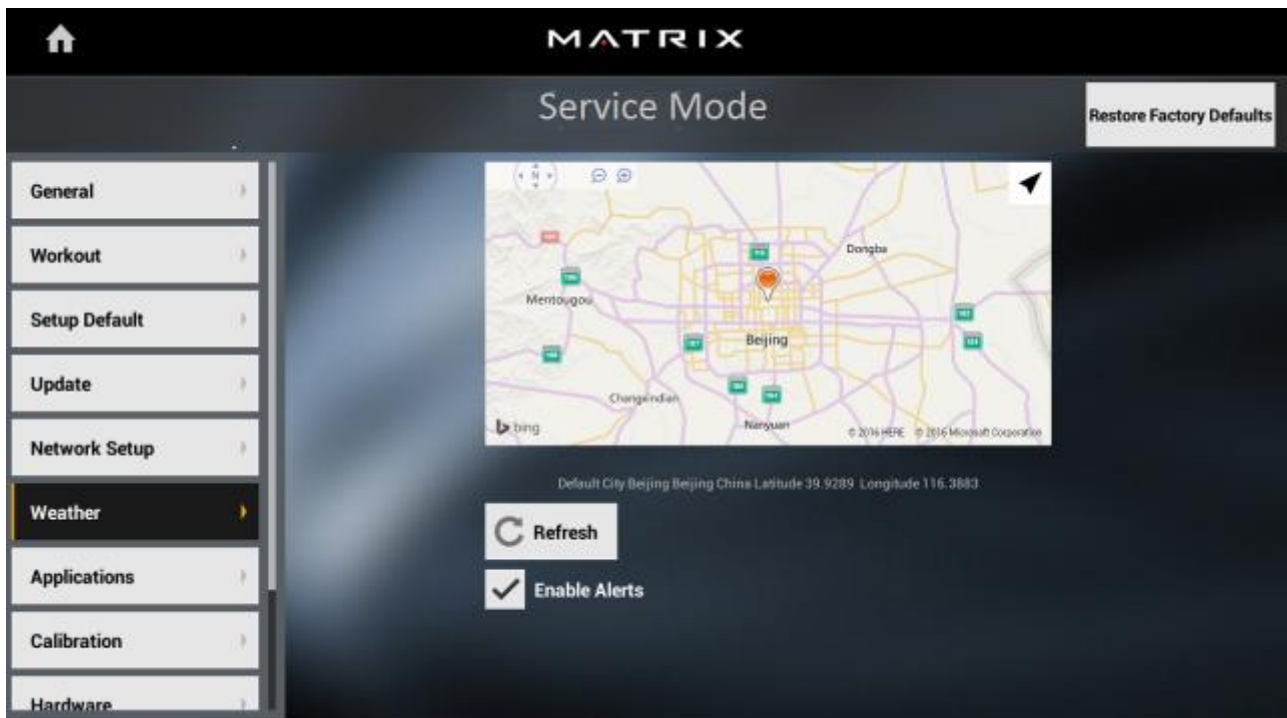
Category	Name	Default	Range	Units	Comments
Network Setup	WIFI Mac Address	Hardware Specified	0.0.0.0.0.0 - 255.255.255.255.255.255	Byte.Byte.Byte.Byte.Byte. ByteIn Hex	Mac address is PULLED. Read Only, should not show up if not connected to WIFI.
	WIFI Setup	--	--	--	Goes to the WIFI setup page.
Network Setup (WIFI Setup)	Available Wireless Networks	--	Wireless networks in range with 'Other Network' always shown at the bottom of the list in order for the user to specify their own network	If the user selects 'Other Network' they should be prompted to enter the Network Name, Password and the security protocol from None, WEP, WPA, WPA2, WPAPSK, WPA2PSK. If the user selects the network the console is currently connected to (indicated by a different colored WIFI symbol) they should be prompted with the option to forget the settings for that network.	Follows the same look and function as First Time Setup for WIFI setup: lists available wireless networks, their signal strength on the console and which one the console is connected to if it is connected to one. Tapping a network name has the console prompt the user to enter the network password if there is one required. If the user inputs the wrong credentials the system notifies them that the console was unable to connect to the network and they are returned to the network list.



CHAPTER 7: XIR/ XER CONSOLE SERVICE MODE

7.7 Weather

Category	Name	Default	Range	Units	Comments
Weather Note: Units (Fahrenheit/Imperial vs. Celsius/Metric) are determined by language - region. If a user authenticates using xID, the units will respect the preferred units as set in the user's profile settings. If guest user, the setting in service mode should be respected.	Enable Alerts	Check	Check/No Check	--	If it has a weather alert from the website, the alert mark will be in red on the workout screen.
	Refresh	--	--	--	Tap to refresh the web connection to Bing. Works the same as the refresh button in a web browser.
	Default City	Current Location which is determined by either the location stored in the console or the IP Address of the console if a location has not been set.	--	GPS Coordinates Note: May or may not display a location other than GPS coordinates. This is an issue with Bing as opposed to the web app.	Search by touching and dragging on the map. Double touch a spot on the map to set as your location.



CHAPTER 7: XIR/ XER CONSOLE SERVICE MODE

7.8 Application

Category	Name	Default	Range	Units	Comments
Applications	Applicati on Setup	Show all available apps	Move, Hide/Make Inactive, Locked	--	Displays a grid of the app buttons. Tapping and holding down on an app will make it movable to other spots (other apps will shift automatically). This app can be moved to the 'Inactive' column in which case it will not appear on the run screen. If an app button is dark with a padlock it is locked and cannot be moved.



CHAPTER 7: XIR/ XER CONSOLE SERVICE MODE

7.9 Calibration

Category	Name	Default	Range	Units	Comments
Calibration	Run Machine	Run Machine	Machine, Stop Machine (button alternates between the two)	EUR: Time, RPM, Calories, Distance, Heart Rate, Resistance, Resistance Slider. A: Time, RPM, Calories, Distance, Heart Rate, Resistance, Incline, Resistance Slider, Incline Slider. T: Time, Incline, Speed, Calories, Distance, Heart Rate, Incline Slider, Speed Slider	Runs a 'workout' on a machine and on a treadmill disables Tread Sense. Meant for testing and calibrating the hardware. What can be adjusted and what stats are displayed changes to match the frame being tested. Should allow for the testing of the frames hardware buttons, heart rate grips and 5MHz heart rate detector.
	Disable Control Zone	No Check	Check/No Check		Enables/Disables the Control Zone detection feature on the LCB (Auto-Stop/Braking feature). Reverts to enabled after a power cycle, reboot or Energy Saver cycle.
	Disable IR Sensor	No Check	Check/No Check		Enables/Disables the IR Sensor detection feature on the LCB (Auto-Stop/Braking feature). Reverts to enabled after a power cycle, reboot or Energy Saver cycle.
	Control Zone Threshold	0	4-200		Read Only. Value at which the Control Zone Auto-Stop/Braking activates. Checked against the Current Pressure - Baseline Pressure. Baseline Pressure is the pressure measured from the Control Zone mat when no weight is on it.
	Control Zone Pressure	0	0-330		Read Only. Current pressure measured by the LCB from the Control Zone mat. Regularly updates when in the Calibration Tab.
	Frame IR Sensor Frequency	20	10-46	Hz	Read Only. When in the Calibration Tab this value will regularly update with the current Frame IR Sensor frequency calculated by the LCB.



CHAPTER 7: XIR/ XER CONSOLE SERVICE MODE

7.10 Hardware

Category	Name	Default	Range	Units	Comments
Hardware	USB Connection Mode	Host	Host, Device		Switches the USB port from Host (user can plug in USB/Phone for media) to Device (used for ADB and development). Note that the console must reboot for this switch to take effect.
	ErP	No Check	Check/No Check	--	Alternates between ErP which puts the console in a low power mode and launching the Demo Video. When checked the console goes into ErP, when not checked the console launches the Demo Video. These actions occur after a time of inactivity (no workout, touch events, etc.) determined by the ErP Timeout setting. Pressing any physical key wakes up the console from ErP or the Demo

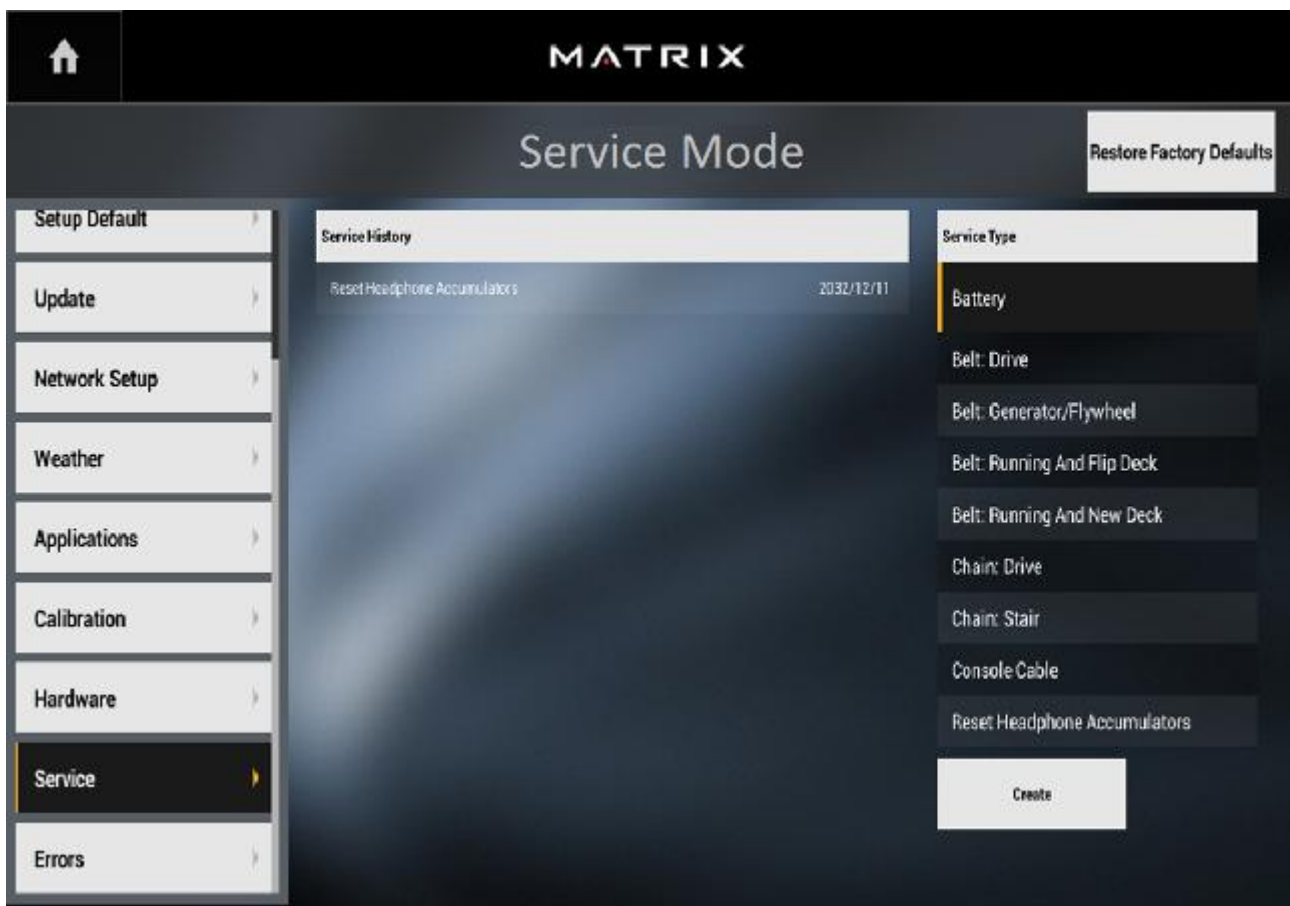
					Video and returns it to the Home/Go Screen. The Demo Video can also be exited by touching the screen.
	ErP Timeout	15	1-60	Minutes	Amount of time after which the console enters a low power mode or the Demo Video
	Backlight Brightness	100	0-100	--	Set the brightness of the screen.
	Key Test	--	--	All physical key presses.	Read Only. Starts when you enter the test. Causes the console to display the all subsequent physical key presses on the console. Exit by selecting a tab.
	Play Key Sound	Check	Check/No Check	--	Sound plays when the user presses the frame buttons (e.g., incline up/down, resistance up/down, etc.)
	Play Workout Countdown Sound	Check	Check/No Check	--	--
	Master Volume	5	0-30	--	All apps have their volume maxed, this sets the system-wide volume. The volume matches the DQE standard. Does not affect the system beep volume.
	Headphone Insertions	0	--	--	Read only. Keeps a count of how many times headphones have been inserted and removed from the headphone jack. Can be reset by restoring to factory defaults.
	Reset	--	--	--	Button that resets the Headphone Insertions and Removals counts to 0.
	Hours Since Chain Was Last Lubed	0		Hours	Read only. Displays the accumulated hours since last reset. Rounds the value to the nearest 0.01 hours. When this value reaches 1080 hours it triggers a 'Lube Chain' reminder that appears in the Top Bar every time the Go Screen is launched until this value is reset to 0.
	Detect User	Check	Check/No Check		New LCB Feature; calculated every 500 ms when enabled. When the actual speed of the steps is less than the target speed and the difference between them is more than 55 SPM or half the target speed the LCB will stop the steps and end the workout. This setting always resets to default after a power cycle or Energy Saver cycle.



CHAPTER 7: XIR/ XER CONSOLE SERVICE MODE

7.11 Service

Category	Name	Default	Range	Units	Comments
Service	Service History	--	--	Battery, Belt: Drive, Belt: Generator/Flywheel, Belt: Running and Flip Deck, Belt: Running and New Deck, Chain: Drive, Chain: Stair, Console Cable, Reset Headphone Accumulators, Reset Accumulated Time, Reset Accumulated Distance, Reset Total Floors, Reset Factory Defaults	Generates a service entry from the service items listed in a log that is kept on the machine and sent to DAPI (for things like Asset Management). Tap Create to create the entry for the selected Service Type.



CHAPTER 7: XIR/ XER CONSOLE SERVICE MODE

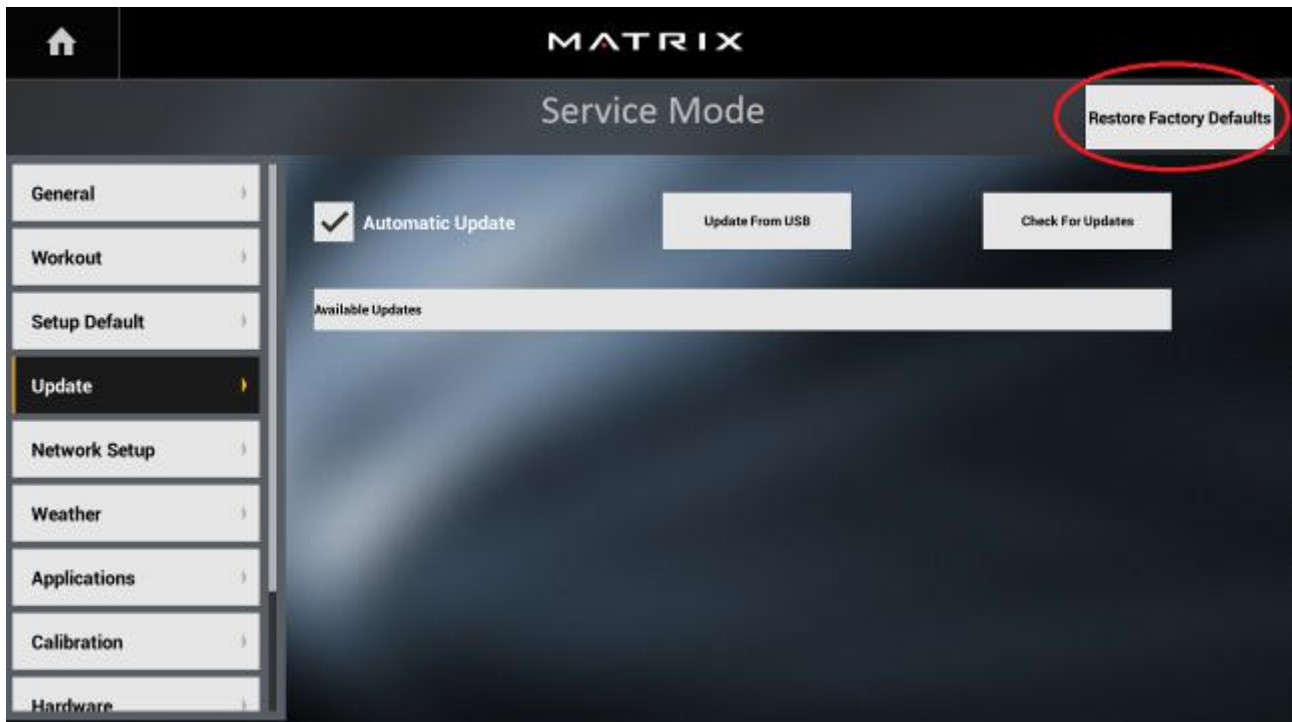
7.12 Errors

Category	Name	Default	Range	Units	Comments
Errors	Error Log	--	Clear All	Error Code, First Occurrence, Last Occurrence, Count	Error history that can be cleared with the Clear All button. Lists the error codes experienced by the console, the first and last occurrence of that error code and how many times it has happened since the first occurrence.



7.13 Restore Factory Defaults

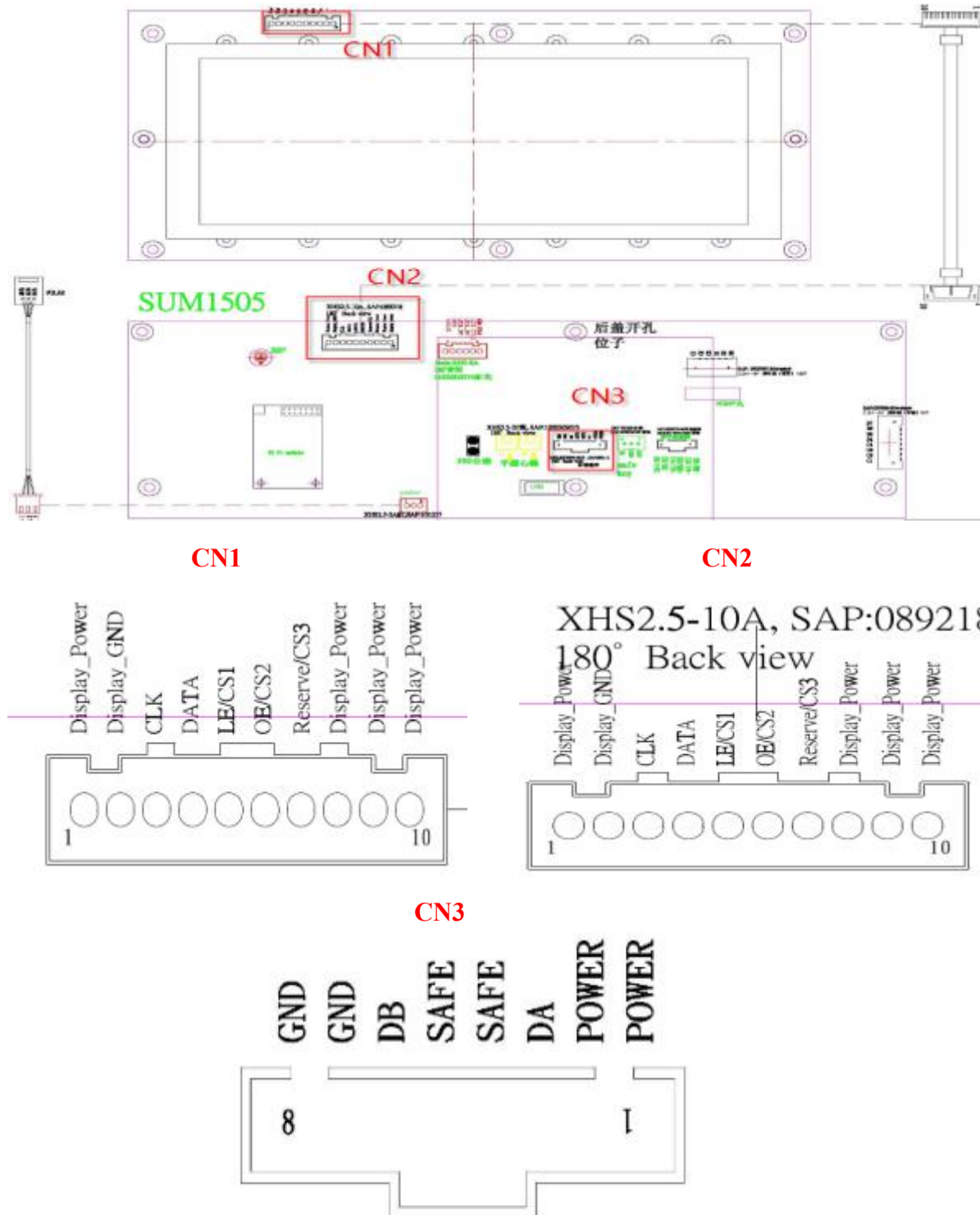
Category	Name	Default	Range	Units	Comments
Restore Factory Defaults Always available, not in it's own tab	Restore Factory Defaults	--	--	--	Resets various options, counters, and configuration values to defaults given to the factory for production. See the Factory Defaults Table for a list of options and values. It also resets the First Time Setup wizard to run again.



CHAPTER 8: TROUBLESHOOTING

8.1 Electrical Diagram

8.1.1 XR/XER/XIR Electrical Diagram

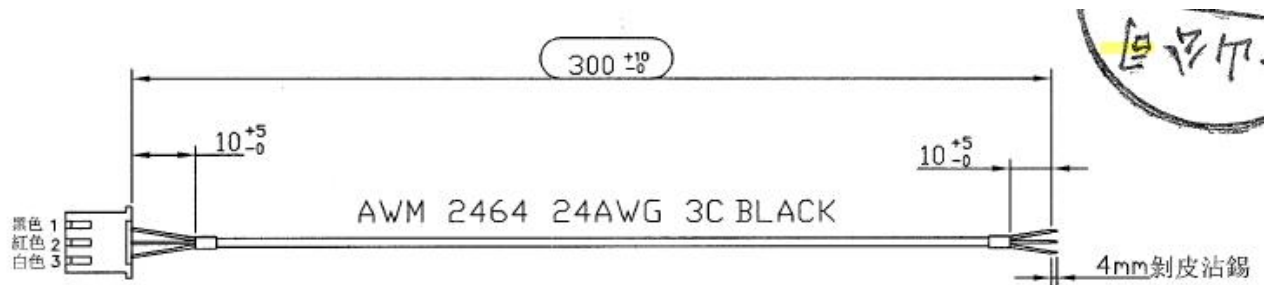


CHAPTER 8: TROUBLESHOOTING

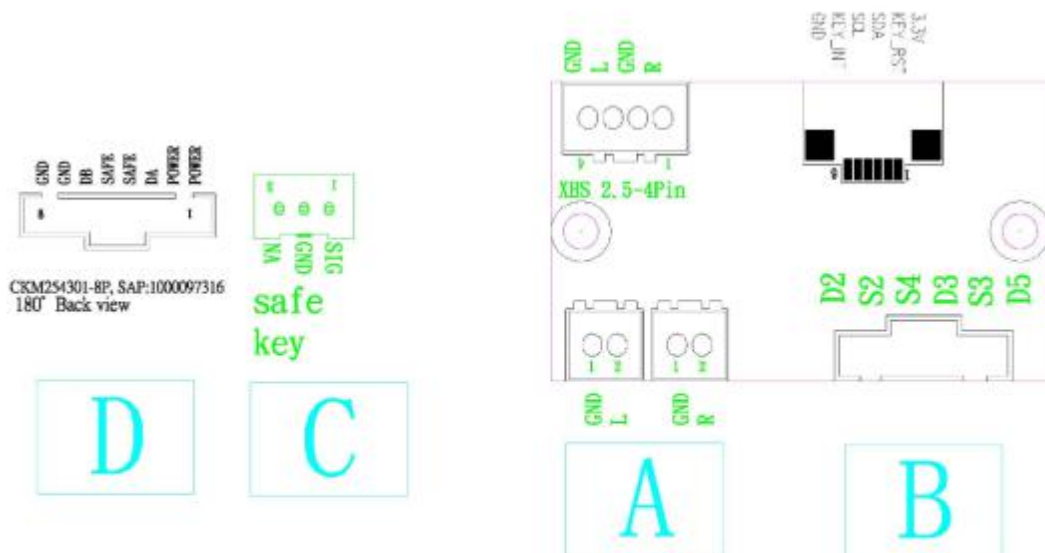
Display connect wire



Keypad connection wire

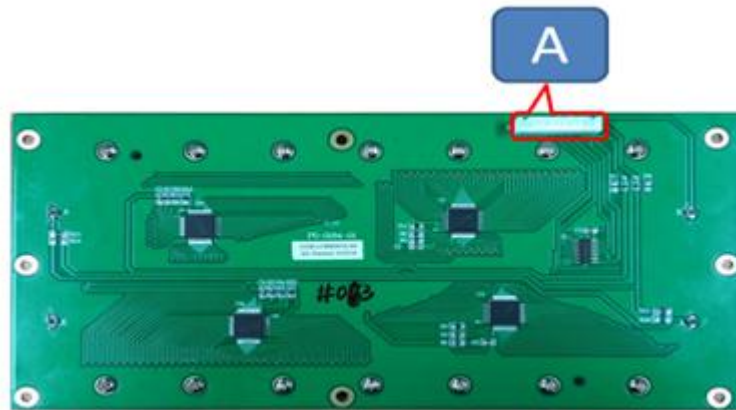


8.1 Electrical Diagram

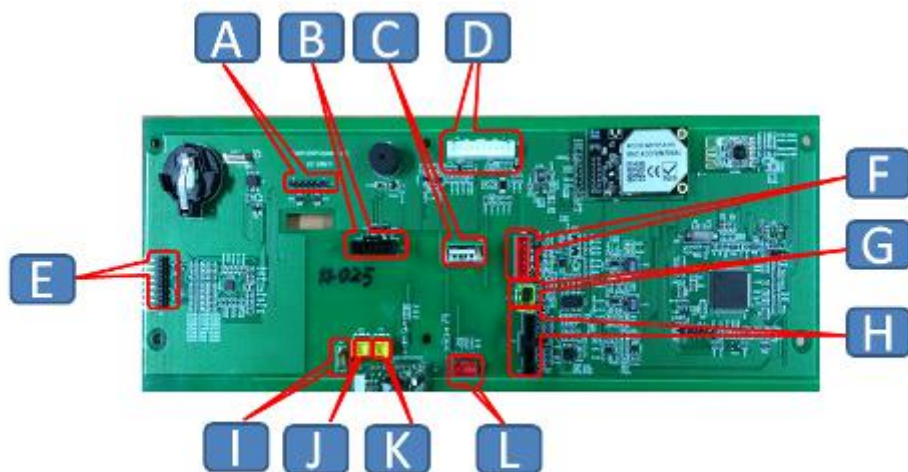


CHAPTER 8: TROUBLESHOOTING

8.1.2 XR UCB Ports Description

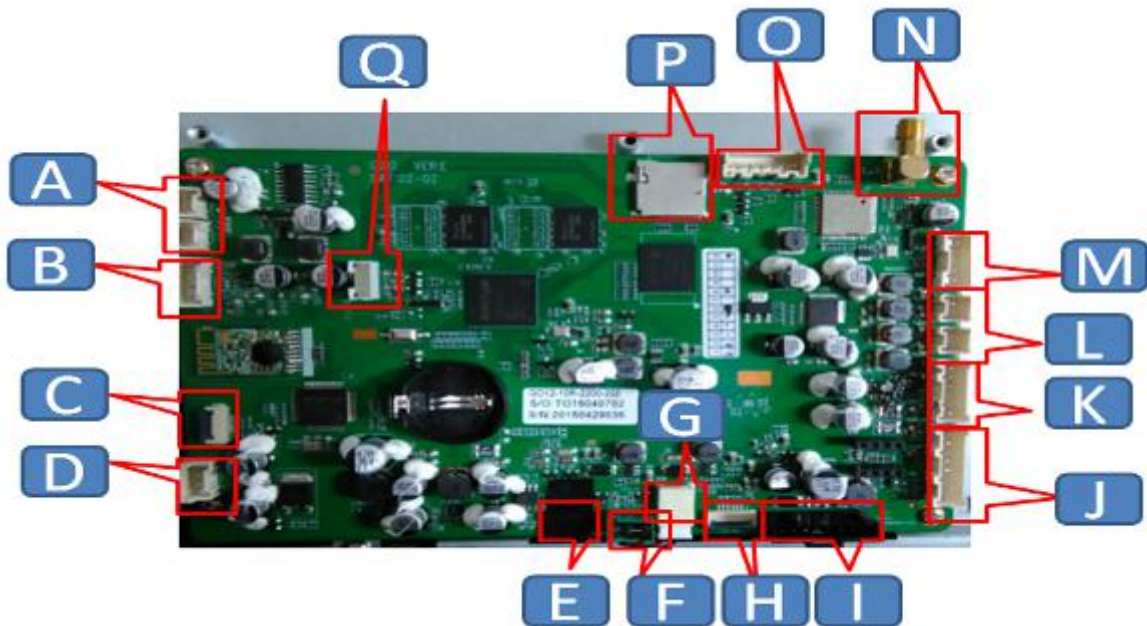


A	LCD Display Port
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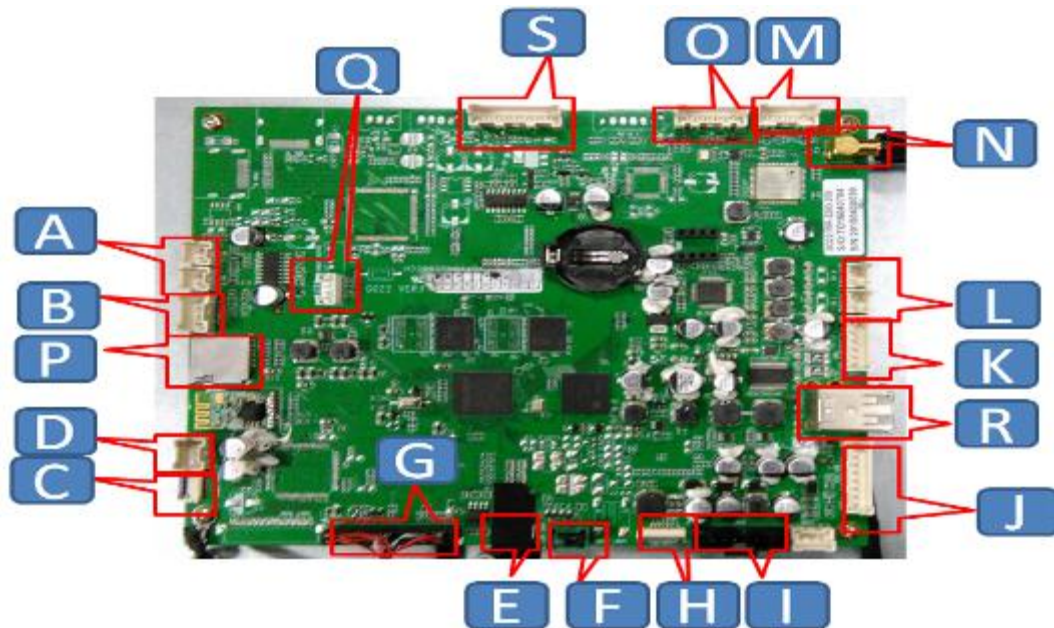
A	Program Keypad	G	Safety Key
B	Quick Key	H	Digital Interface
C	USB Port	I	GND wire
D	LCD Display Port	J	Hand Grip L
E	Program Keypad	K	Hand Grip R
F	USB Interface	L	Polar Interface

8.1.3 XER UCB Ports Description



A	Hand Grip	J	USB+ErP LED
B	Wireless HR	K	USB+Audio in
C	MCU debug	L	Speaker
D	Fan	M	Earphone
E	Touch Panel	N	WIFI antenna
F	Safety Key	O	NFC (Reseved)
G	TFT back light	P	TF card
H	12C keypad	Q	Uart print port
I	Digital Interface		

8.1.4 XIR UCB Ports Description



A	Hand Grip	K	USB+Bluetooth sink
B	Wireless HR	L	Speaker
C	MCU debug	M	Earphone
D	Fan	N	WIFI antenna
E	Touch Panel	O	NFC (Reseved)
F	Safety Key	P	TF card
G	TFT back light	Q	Uart print port
H	12C keypad	R	USB
I	Digital Interface	S	Audio line in
J	USB+ErP LED		

8.2 Console Does Not Light Up

1) SYMPTOM:

The power switch is in the on position, but the console will not turn on.

2) Reasons:

- a. The console is damaged or the console cable is not connected properly.
- b. Poor connection to the terminals on the lower control board.
- c. The lower control board is damaged.

3) SOLUTION:

1. Verify the outlet the machine is plugged into is functional.
2. Verify the correct power cord is being used. Only use the power cord included with the unit or contact Customer Tech Support
3. Verify the power cord is not pinched or damaged and is properly plugged into the outlet and the machine.
4. If the voltage through the console cable is 12VDC, the console is defective, replace it.
5. Remove the console and check to see if the console wire has a good CONNECTION with the console.
6. For treadmills only: remove the bolts attaching the console base to the right console mast. Check to see if the upper console cable and lower console cable are well connected.
7. Check the lower console cable connection to the lower control board. For treadmills, remove the motor cover. For bikes and elliptical, remove the side cover. For ascents, remove the front service panel.

8.3 Speed Does Not Display (for BK/EP/AS)

1) SYMPTOM:

The speed value do not display on console

2) SOLUTION:

1. Unplug power cord, remove the console and check that all connections to the console are secure and not damaged or pinched.
2. Remove the side cover and check to see if the sensor wire is connected well.
3. Check to see if one corner of the sensor is aligned with the magnet and the distance less than 5mm.

8.4 All or Some of the Function Keys Do Not Respond (for XR only)

1) SYMPTOM:

All or Some of the Function Keys Do Not Respond.

2) SOLUTION:

- a. The keypad connection ribbon cable has not been plugged in correctly.

Check the connections of the keypad at the UCB.

Remove the console from the console bracket.

Remove the 6 screws holding the back of the console to the front.

Inspect the keypad ribbon cable connection at the UCB .

Even if the keypad ribbon cable appears to be connected correctly, unplug and reseal the cable, then retest.

- b. The keypad is damaged, please refer to section 9.2-overlay replacement.

Replace the keypad.

- c. The UCB is damaged.

Replace the UCB.

8.5 Incomplete Display (for XR)

1) SYMPTOM:

Incomplete display or shadow on the console. (Fig1 & Fig2)



Fig1



Fig2



Fig3

2) SOLUTION:

a. If found problem like picture 1 and 2, need adjust the screw (picture 4) on the back of display, loosen the screw then tighten it to fix problem , left position part display adjust left screw on the back of display, right position part display adjust right.

b.. If found problem like picture 3, change the display board (picture 5)

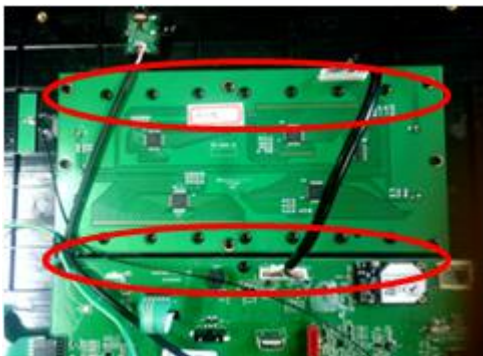


Fig4

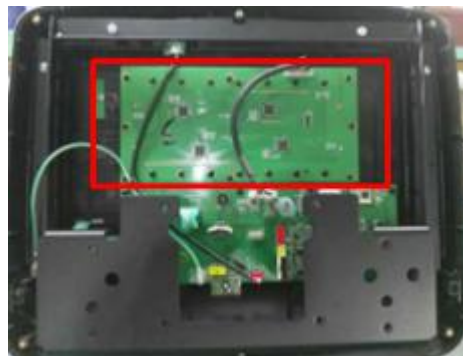


Fig5

Notes: this method only used for missing segment problem. Other display problem such as dark display, please refer to section8.2.

8.6 Speaker /Audio Issues (for XER/XIR)

1) SYMPTOM:

The speaker or headphones have no sound output.

2) SOLUTION:

- a. Confirm whether the speaker wire is well-connected with the UCB.
 - b. If well-connected, make sure that the audio output short-circuit terminal is present and tight.
 - c. Update the console software
 - d. If the speakers have sound output, but headphones have no sound output, replace the headphone wire.
- If problems persist, replace the headphone board

8.7 WIFI Connecting Problem (for XER/XIR)

1) SYMPTOM:

WIFI signal cannot receive.

2) SOLUTION:

- a. When cannot receive WIFI signal, open the console upper cover.
- b. Check if the antenna is loose. Tighten it if it is loose Fig1.
- c. Check if the antenna is upwards. If not, please adjust the direction to upwards.Fig2.
- d. If problem still exists, need to replace the console.



Fig1

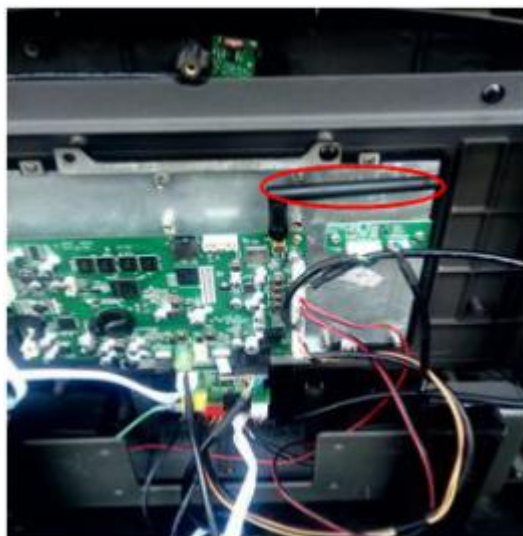


Fig2

8.8 Handlebar Keypad Failure

1) **Symptom:**

No response from handlebar keypad, or stuck buttons.

2) **Solution:**

1. Disconnect handlebar keypad connection wire from back of console, and then press any button of console. If console display normal, this is handlebar keypad problem.
2. Handlebar keypad failure inspection as below procedures:
 - a. When handlebar key does not work, firstly measure the pins with AVO meter to check if the keypad is bad.
Pic1
 - b. Measure the resistance of keypad: " Ω " position on AVO meter, press keypad— keypad is good if the value $<200\Omega$.
 - c. Same as step2, measure the other side keypad. Pic3.
 - d. If handlebar keypad is both good, next step is to judge if the handlebar cable works normally, replace the part to try to solve it.



Pic1



Pic2



Pic3

8.9 XER/XIR Console Cannot Start

1) Symptom:

APP abnormal lead to console cannot start.

2) Solution:

Update new software. Software updating procedure as below:

Step 1	On the “GO” interface, click “Settings”, then select “Machine settings”:	 
Step 2	When it goes to “Machine settings”, select “Update”	
Step 3	Click” Update from USB” then get the software for installing.	
Step 4	Click “Install”, console will work by itself.	

8.10 XER/XIR Touch Screen Frozen

1) **Symptom:**

No response on touch screen.

2) **Solution:**

1. Use shortcut key to enter engineering mode to fix , please check SOP :

a. Firstly calibrate the screen. In main interface, press “Incline+&Speed-” 3s to enter engineering mode, press buttons “Incline+&Speed-” together for 3s. Pic1 & Pic2.



Pic1



Pic2

b. In engineering mode, once again press buttons “Incline+&Speed-” together for 3s, go to screen calibration mode. Pic3.

c. Click the coordinate point with pen, when it disappears, click the next point until finish 5 of them, which means the calibration is completed. Then console will display. Pic4.

d. Go back Home Screen by clicking home icon in pic4, confirm again if touch screen works, if not , replace the console.



Pic3

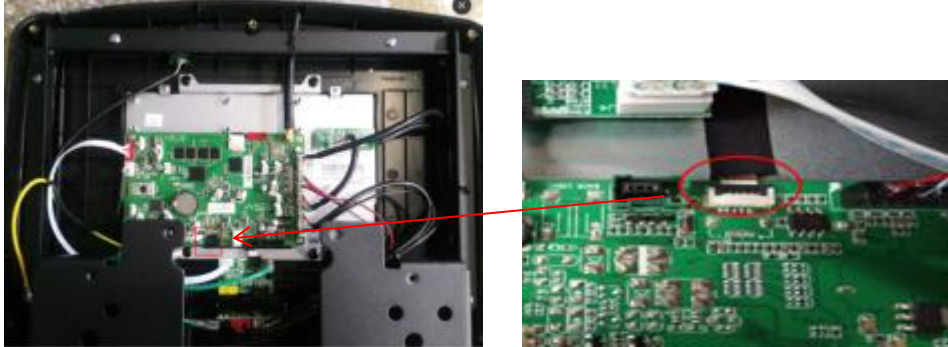


Pic4

2. Upgrades UI. Procedures as section 8.9.

8.10 XER Touch Screen Frozen

3. . Pull out flat cable and assemble it again.



Notes: GUI console is supplier material no part number

4. Add prevent water rubber again.



5. Test resistance, change GUI if above 20nf, test SOP in below document:

Disassemble touch screen flat cable



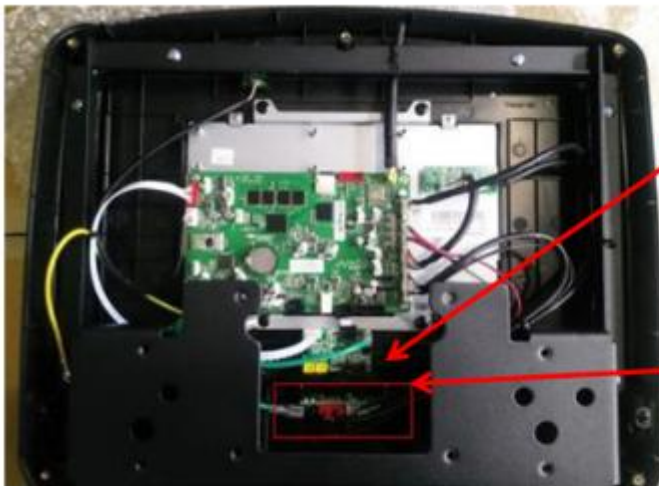
Set capacity measurement in universal meter	
Touch golden parts in flat cable by universal meter	
Attention: nothing can allow pressing on console or test result is not correct.	
Universal meter is not so precision so test result will have tolerance.	

8.11 XER/XIR Cannot Read U Disk

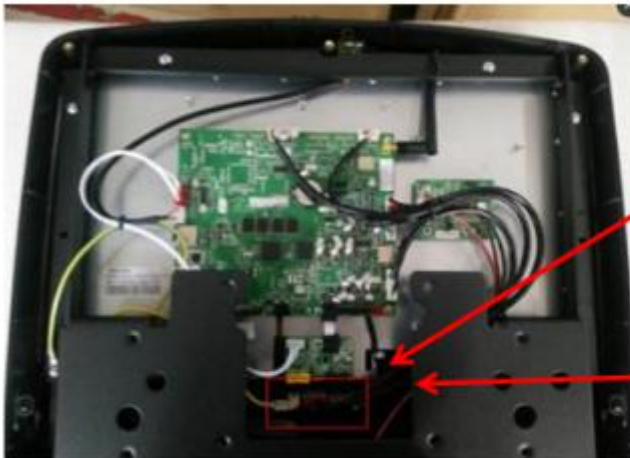
Solution:

1. Check if USB cable is fasten .
2. Change USB cable or USB board.

XER



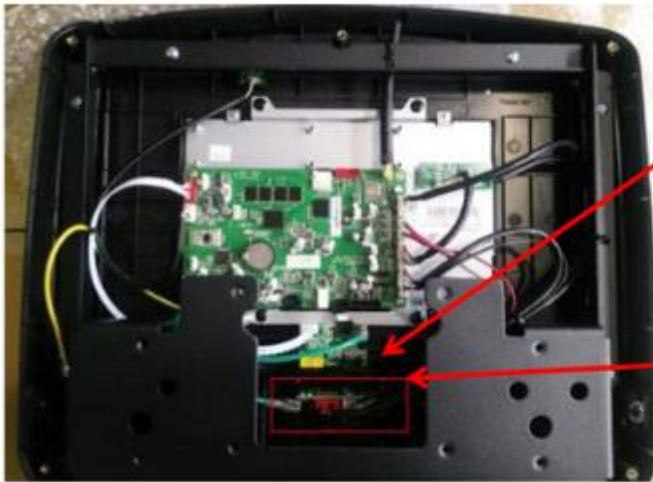
XIR



8.12 XER/XIR Has No Beep

Solution:

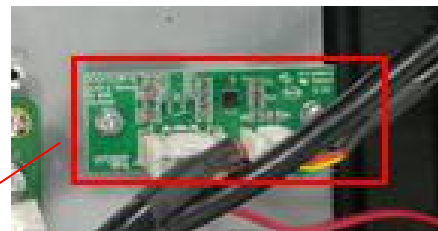
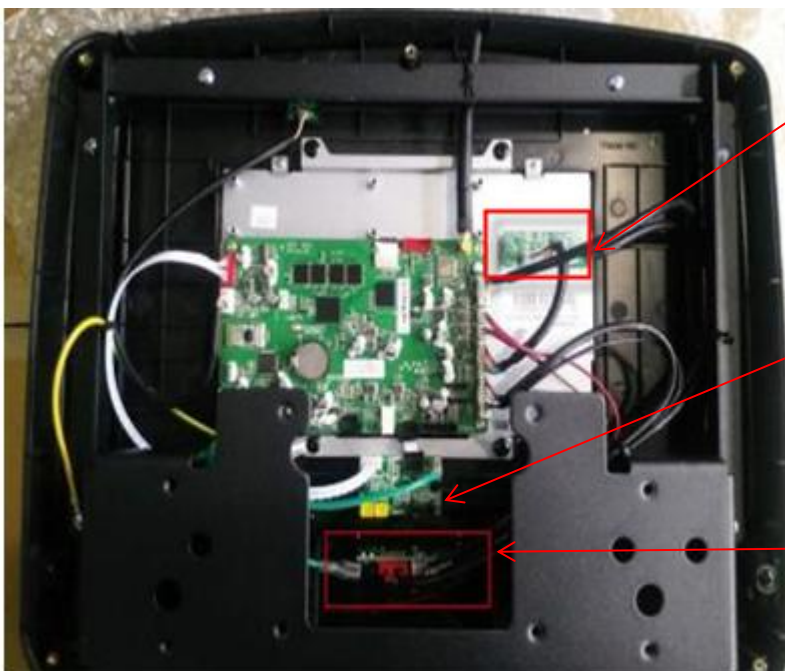
1. Check if iphone line is fasten
2. Change iphone line or USB board



8.13 XER/XIR Speaker Without Sound

Solution:

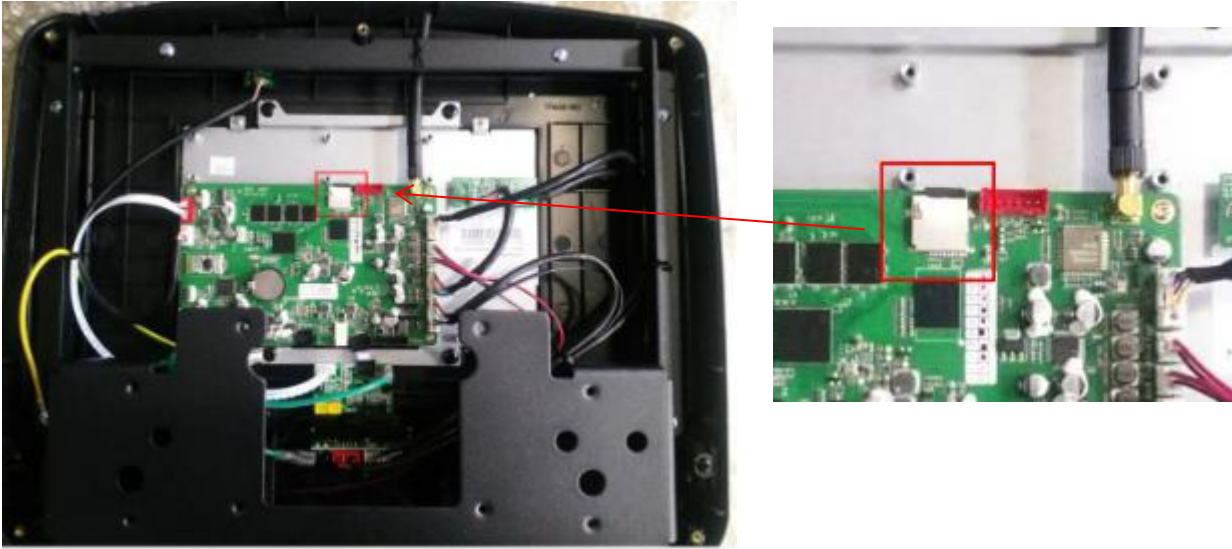
1. Check if connection wire are fasten
2. Change USB or audio cable
3. Change audio cable



8.14 XER/XIR No VA Scene

Solution:

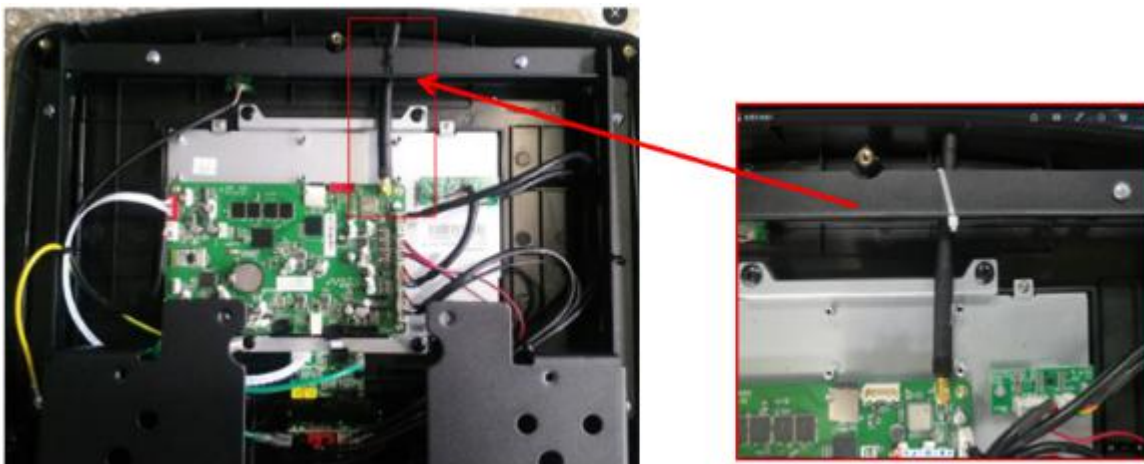
1. Check if TF card is fall off ;
2. Change TF card;



8.15 XER/XIR Antenna and Wire Rod Noise

Solution:

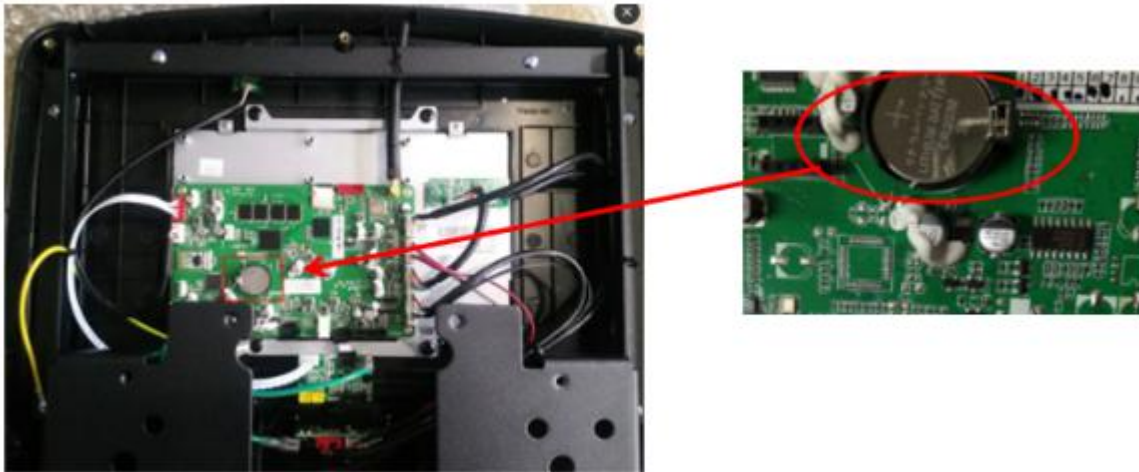
Check if WIFI line is loosen, and fasten the WIFI line as picture.



8.16 XER/XIR Cannot Save System Time

Solution:

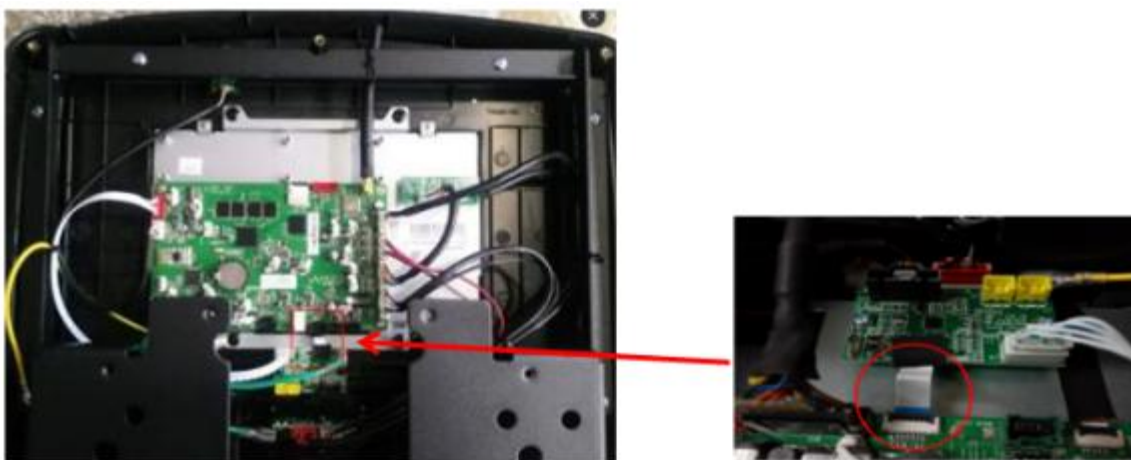
Change RTC battery.



8.17 XER/XIR Shortcut Key Doesn't Work

Solution:

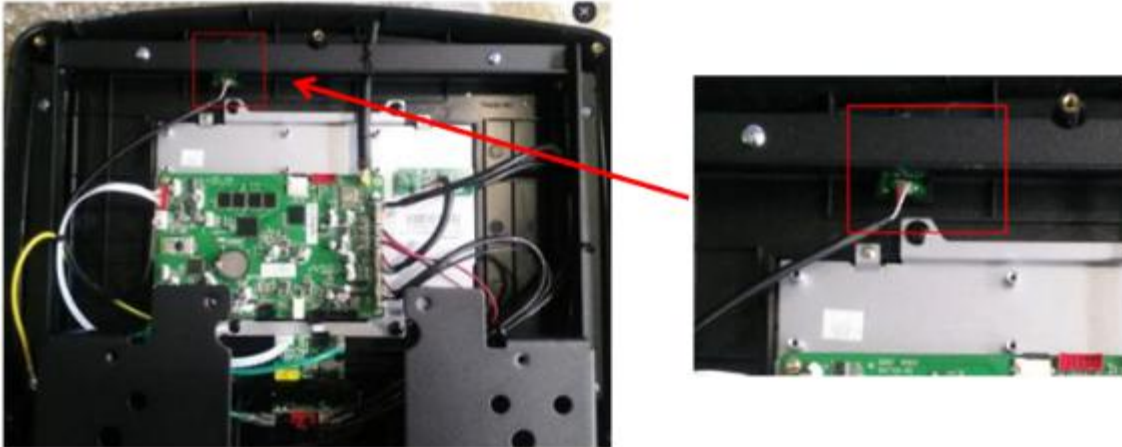
1. Reassemble flat cable again or change flat cable ;
2. Change keypad board.



8.18 XER/XIR No Polar

Solution:

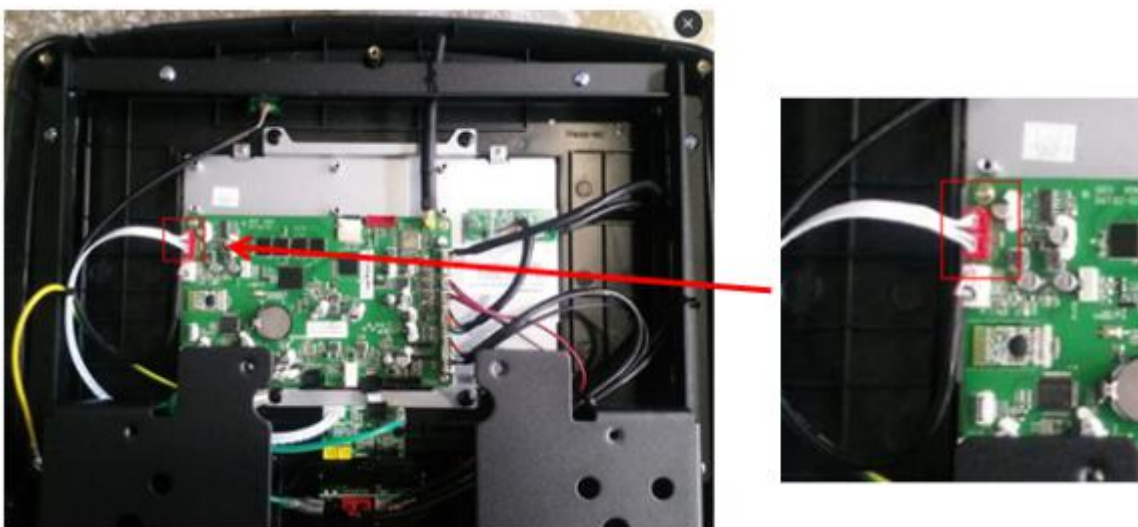
1. Insert polar wire again;
2. Change polar board;



8.19 XER/XIR No Handlebar Heart Rate

Solution:

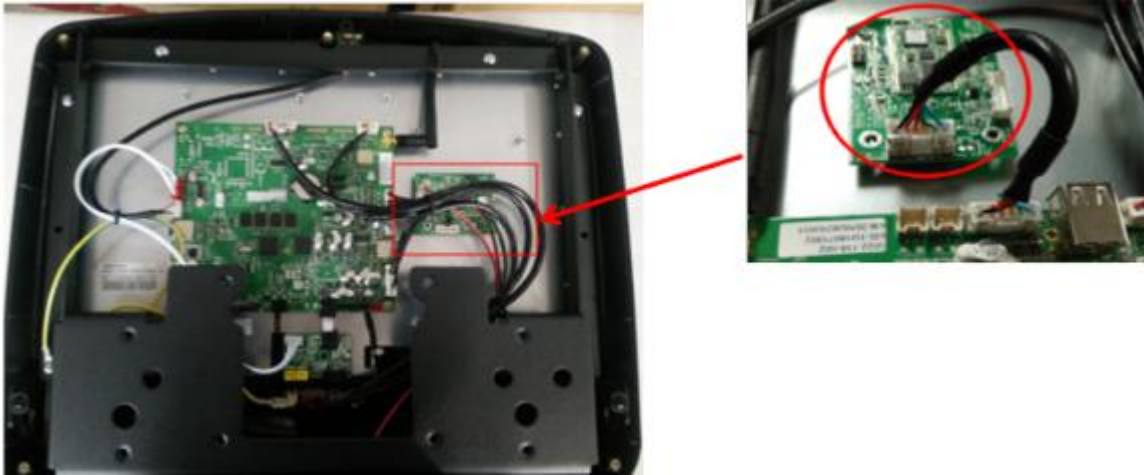
1. Check if wire in handlebar heart rate is damage;
2. Insert wire in handlebar heart rate again.



8.20 XIR No Media Player List

Solution:

1. Check 6 pin flat cable is fasten or not
2. Change blue tooth sink board



8.21 Viafit Set

8.21.1 General

For every support case, **always** record the following:

1. Customer xID
2. Customer Passcode
3. Customer Email Address
4. ViaFit equipment Model Name
5. ViaFit equipment Date of Purchase
6. Has the ViaFit equipment ever successfully connected to the internet? Yes or No.

For every support case, **always** begin the support process with the following steps:

1. Instruct the customer to cycle power on their ViaFit equipment.
2. If possible, restart their home WIFI router.
3. Wait for the ViaFit equipment and the WIFI router to fully boot up.

8.21.2 Issues

1. Connect Issues

1.1 During workout, shows "Login Successful" and then workout ends automatically

Problem: My equipment wakes from sleep and I start a workout with the most recent user. About one minute into the workout, I receive a message that says "Login Successful" and my workout is ended automatically. I am then returned to the main home screen, and my workout that was in progress is lost. How It Looks: WiFi Icon NOT visible, WiFi Icon flashing.	Cause: 1. The workout was started prior to the console reestablishing its connection to the internet. This means the workout was being performed as a "Guest" and was NOT recorded.	Solution: 1. After waking a machine up from Power Save Mode, wait for the WiFi chip to establish a connection with the network (45-60 seconds) before starting a workout. The WiFi icon will flash while it attempts to connect, and will become solid when the connection is established. Once the connection is reestablished, the most recent user will be automatically logged in and the workout will post to that user's account.
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1.2 Shows "DHCP was unable to obtain an IP Address..."

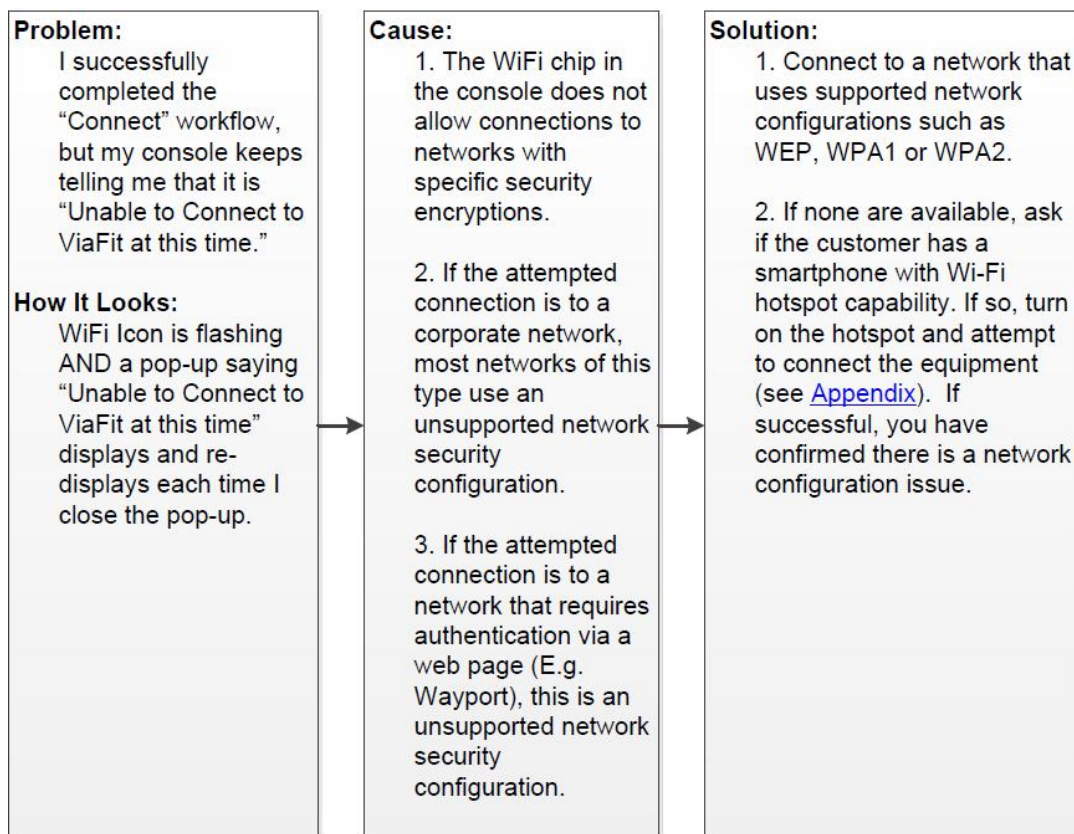
Problem: I connected my equipment to the internet, but now my console tells me that "DHCP was unable to obtain an IP Address. If the netcard is removable, then you can remove/reinsert it to have DHCP make another attempt to obtain an IP address for it. Otherwise, you can statically assign an address." How It Looks: Windows CE Operating System Pop-up displays with the message cited above.	Cause: 1. ViaFit requires that certain network configurations be enabled/disabled and one or more of those settings could be at issue. 2. The WiFi chip in the console does not allow connections to networks with specific security encryptions (See Connect Issues, 1.4).	Solution: 1. Connect to the wireless router using the IP Address provided by the router's manufacturer, and then log in to administer the network changes. 2. Enable DHCP. If DHCP is disabled, the DHCP server will NOT assign an IP Address to the equipment. The IP Address is needed for the console to connect to the network. 3. Disable MAC Filtering. If MAC Filtering is enabled, the DHCP server could be ignoring IP Address requests from the console because of its MAC Address. 4. Configure your router to use one of the following network security protocols: WEP, WPA1 or WPA2.
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		5. Ensure that the network is NOT configured to act as a proxy server for internet traffic. 6. If the console is connected to a network with "wireless repeater access points" and the master wireless access point is offline, the console will be unable to obtain an IP Address. Make sure the master access point is powered on and is connected to the internet.
--	--	---

1.3 Registered new xID, but shows "The xID or Passcode you entered is incorrect"

Problem: I registered a new xID using the ViaFit equipment console and am unable to log in on the equipment and perform a tracked workout. How It Looks: A pop-up displaying "The xID or Passcode you entered is incorrect" appears	Cause: 1. The account was not created during registration. 2. Some ViaFit equipment was shipped with the environment set to "Staging" rather than "Production". The customer's new account is created in the wrong environment. 3. An account registration bug (fixed in November 2014) caused all new accounts created via the console to have their weight value multiplied by 10. This put the weight value over what the console allows.	Solution: 1. Open a browser, navigate to viafit.netpulse.com and attempt to log in using the customer's xID and Passcode. If the login fails, reset the customer's Passcode at https://viafit.netpulse.com/index.html#/reset-passcode. 1A. Upon clicking "Reset Passcode", if the page displays the message "The xID or email address you entered was not found in our system. Please try again," then the account was never created. Create the account for the customer and direct them to log in on their console using the xID and Passcode you created their account with. 1B. Upon clicking "Reset Passcode", if the page displays the message "We've emailed you a temporary passcode. You can use it to login below," then the account was created. Instruct the customer to follow the email instructions, then log in on their console using the xID and new Passcode. 2. Open a browser, navigate to viafit.qa.netpulse.com and attempt to log in using the customer's xID and Passcode. 2A. If login was successful, the console's environment is NOT set to "Production". Instruct the customer to hold down the "Resistance" buttons until the "Engineering" screen appears. In the "About" section, make sure the button on the right says "Production" rather than cycle power. 2B. If login was unsuccessful, move to solution 3. 3. Open a browser, navigate to viafit.netpulse.com and attempt to log in using the customer's xID and Passcode. 3A. If login is successful, navigate to their account settings page and verify that the Weight value is below 400 lbs/180 kg. If it is above, change it to be below that threshold. After changing the weight, ask the customer to log in on their console. 3B. If the login is unsuccessful, move to solution 4. 4. If the customer received an email message from ViaFit stating "Someone recently tried to sign in to your account. If you are not aware of this sign-in attempt, someone else might be trying to access your account. You should reset your login information immediately," their account is locked. Instruct the customer to click the link provided in the email and follow the instructions to reset their Passcode. Next, direct them to log in on their console using the xID and new Passcode.
	4. If the user was attempted to log in multiple times, their account may be locked. On the 5th failed log in attempt, the server locks the account for suspicious activity and it will need to be unlocked.	

1.4 Shows "Unable to Connect to ViaFit at this time"

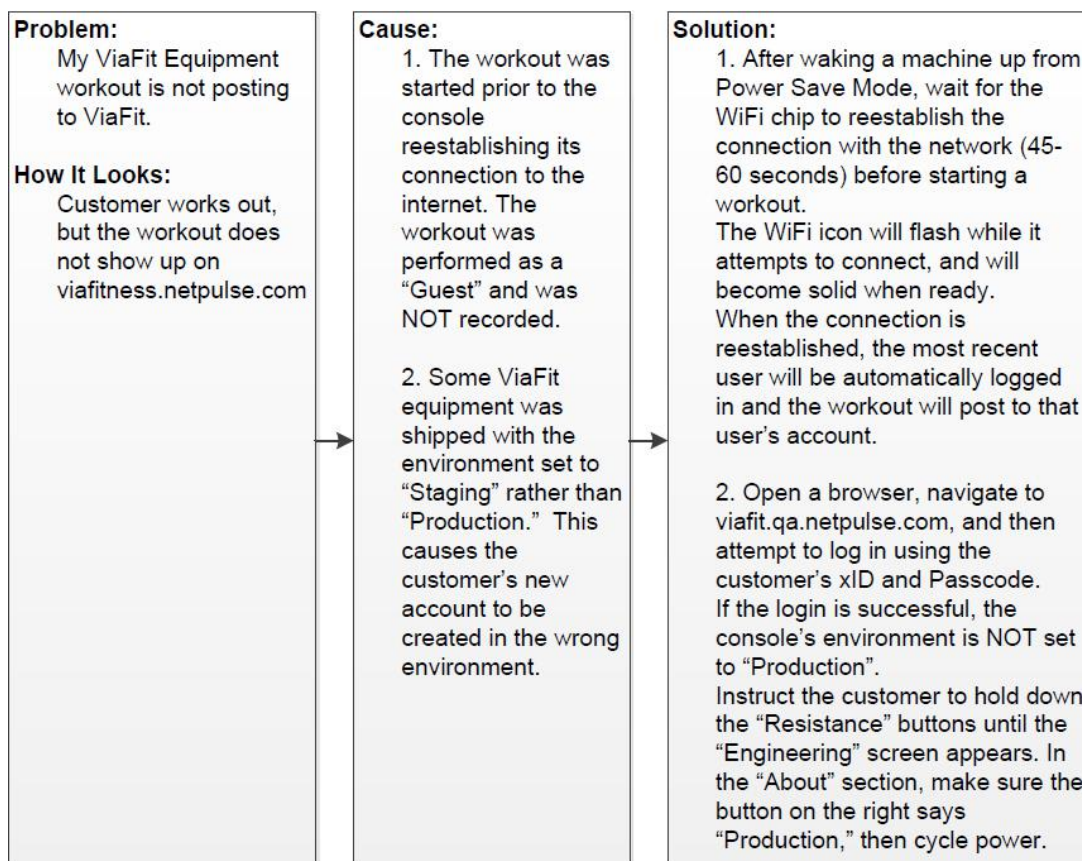


1.5 Machine previously connected to ViaFit, but now connection fails.

Problem: A customer's router and equipment have been turned off for a few days, and now the machine will not connect to ViaFit. How It Looks: The machine attempts to connect, but fails. The WiFi icon will illuminate each curved bar of the symbol moving upward. When it times out, the WiFi symbol will not display. This indicates that it is not connected to the network.	Cause: 1. The equipment stored the IP Address that was originally given by the router, and it does not want to connect to a new IP Address. The customer must force the machine to request a new IP Address from the router.	Solution: For models with a <u>touchscreen display console</u>, either: 1. Connect the machine via a wireless hotspot that isn't a home router (i.e. cell phone) and make sure it connects. Next, reconnect to the home router. 2. Log in to the home router and change the password for the WiFi, then reenter the password on the machine. For models with an <u>LED console</u>: 1. Press the WiFi icon and go through the WiFi set up process to connect the machine as if it is the first time connecting to ViaFit.
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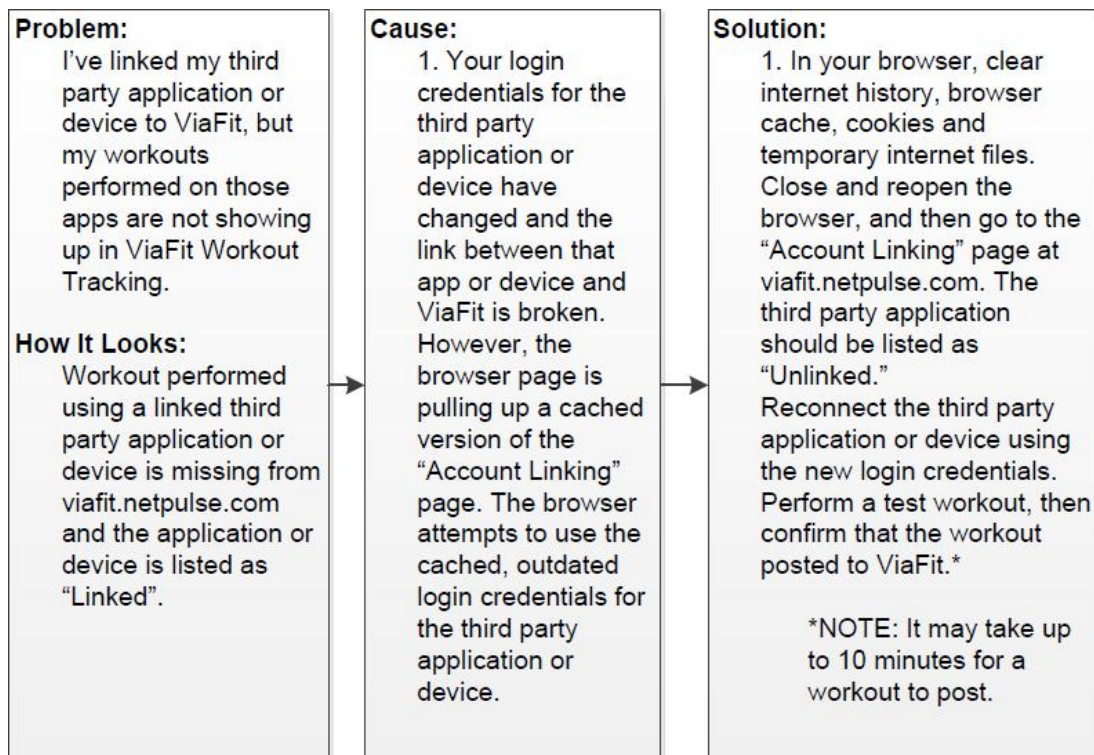
8.21.2 Track Issues

2.1 - Workouts from ViaFit equipment do not post to ViaFit Workout Tracking

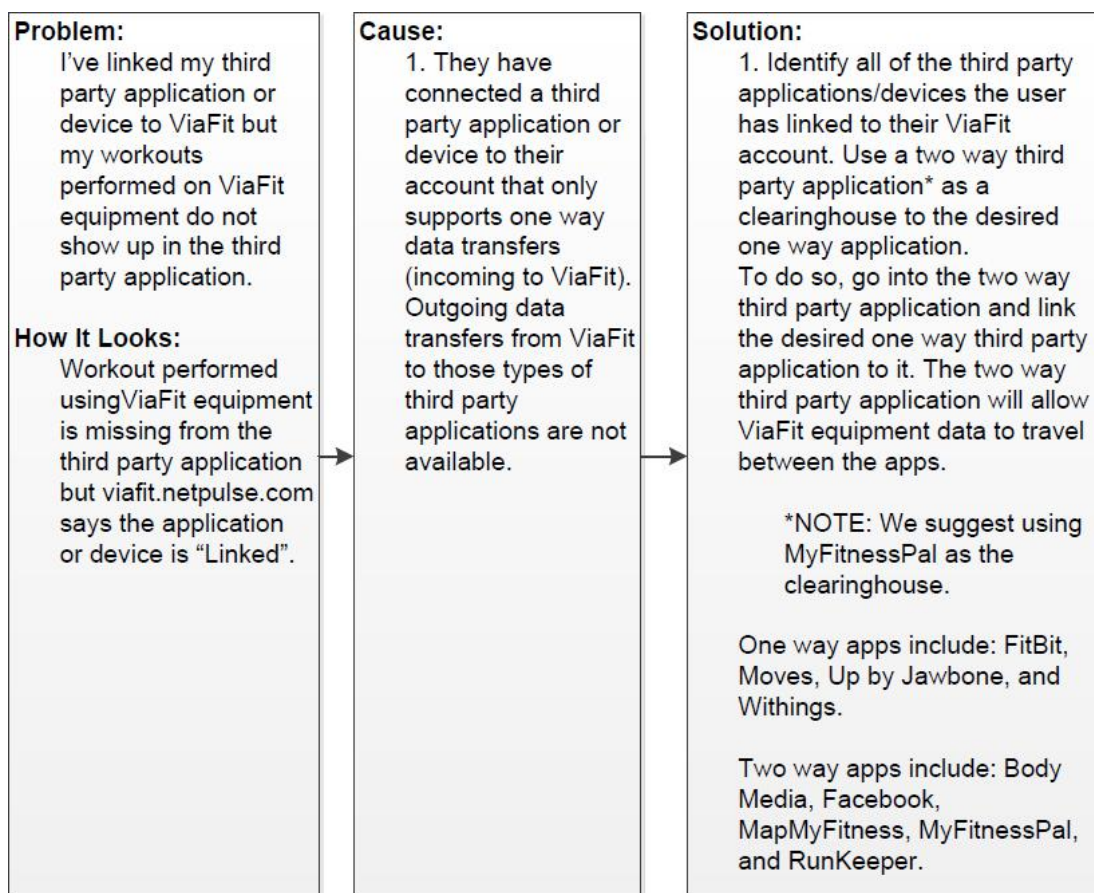


8.21.3 Share Issues

3.1 - Workouts from linked third party sites do not post to ViaFit Workout Tracking



3.2 - Workouts from ViaFit equipment do not post to third party sites



8.21.4 Appendix

How to connect the console to a smartphone WIFI hotspot:

On the smartphone, turn the personal hotspot on (steps may vary based on device):

Android – a. Open the Settings app.

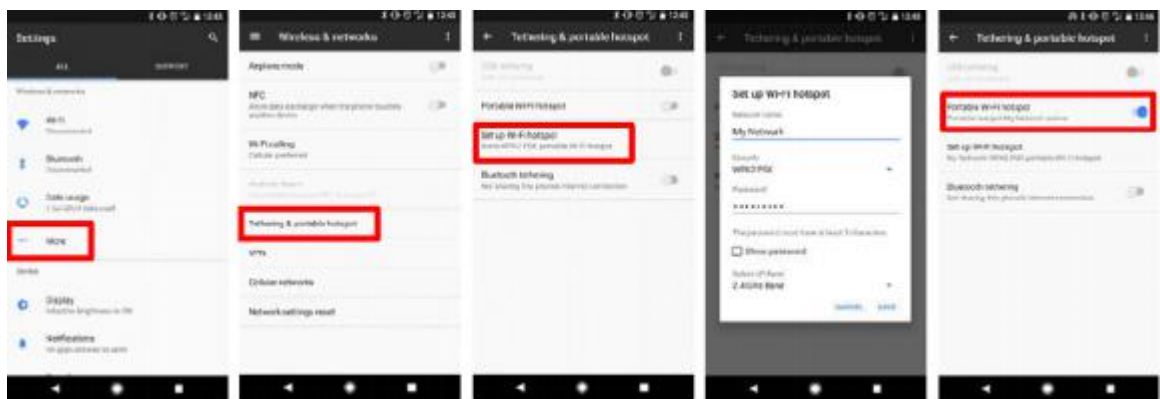
b. Touch **More**.

c. Touch **Tethering & portable hotspot**.

d. If you have not used the device as a hotspot before, choose **Set up WIFI hotspot**.

- Choose a network name.
- Create a network password.
- Click **Save**.

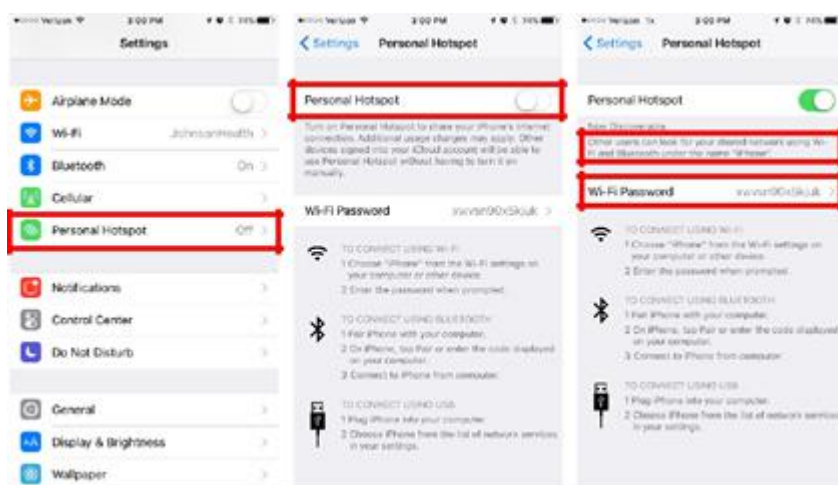
e. Touch **Portable WIFI hotspot** to turn the hotspot on.



IOS – a. Open the Settings app.

b. Touch **Personal Hotspot** (if prompted, choose to turn on WIFI and Bluetooth).

c. Touch the Personal Hotspot slider to turn the hotspot on. (Your phone will show your network name and the password that can be used to sign in to the network.)



2. Connect the hotspot to the console:

Touchscreen display console –

1. On the console, touch the settings icon and then touch **WIFI Setup**.
2. The settings menu will open to the Network Setup tab. Touch **WIFI Setup**.
3. Your hotspot's network name should appear on the Available Wireless Networks list.
4. Touch your hotspot's network name and then enter the network password.
5. If the connection is successful, the console will return to the Available Wireless Networks list and an orange icon will show next to your hotspot's network name.

LED console –

Note: If you have a limited data plan, you may wish to turn off the hotspot while you complete steps 1-8, and then turn it on before beginning step 9.

1. Using a WIFI enabled device other than the smartphone that will generate the hotspot, go to viafitness.com (the ViaFit website) and sign in with your xID.
2. Click **Connect Your Equipment**.
3. On your console, press the up or down arrow button until your console reads "Edit a User".
4. Press and hold the WIFI button on your console.
5. Enter your time zone code on the console. (To find this information, you can use your device to open the "time zone table" on the ViaFit website.)
6. "Activated" will now appear on your console display.
7. Go to your device and click **Next Step** on the ViaFit web page.
8. On your device, check your available WIFI networks: If you are using a tablet (or second smartphone), go to the Settings app. If you are using a computer, click on the networks/WIFI icon on your toolbar. Select your recently activated equipment from the list of available networks – it should appear as the model name. (Sometimes it will not appear with the model name, so look for a new network.)

Note: If your smartphone hotspot is turned off, turn it on now.

9. Once you connect your device to the model, go back to the ViaFit web page and click **Next Step**.
10. You will then be taken to a page where you will need to locate your hotspot network. Once you find that, enter your hotspot network password and click **Connect**. (If the network does not show in the list automatically, click **Other...** and type in the network name and password.)
11. Double check your unit network to make sure it is connected to your hotspot network.
12. Go to the console and make sure the WIFI symbol is solid and not flashing.

CHAPTER 8: TROUBLESHOOTING

8.22 Console Does Not Save User

Symptom:

If the console does not load user information after the SELECT USER screen, it is not obtaining the user information from Via-Fit. Either there is a problem with the console's internet connection, or Via-Fit is not working correctly on our end. (Also see section "Wi-Fi Connectivity".)

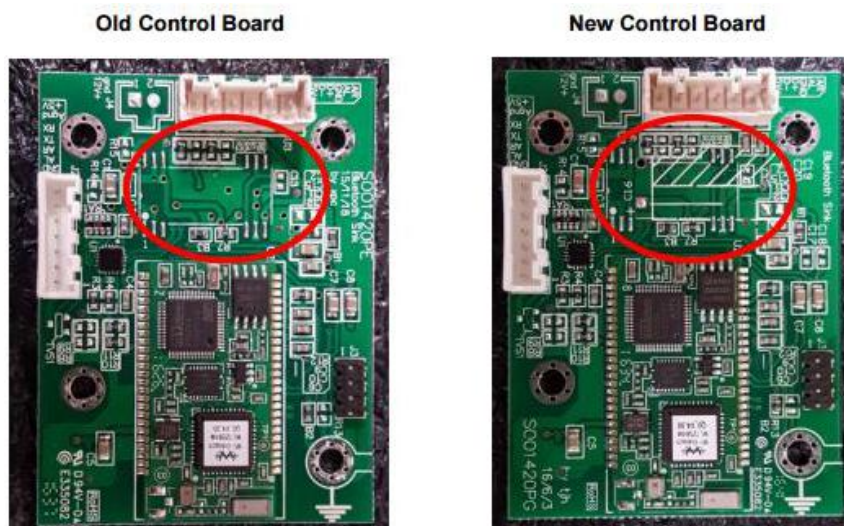
Solution:

1. Log in to via-fitness.com and confirm that the machine appears in the Equipment Profile.
2. Verify that the Wi-Fi icon on the console is solid.
3. If the console still does not update user information when using the direction keys following the SELECT USER screen, power cycle the unit.
4. If the user information still does not load after a power cycle, reset to first boot, and go through the ViaFit setup process as needed.
5. If the user information is still not loading, return the console for review.

8.23 Bluetooth Connectivity Issue

Solution:

1. Make sure the Bluetooth device is turned on, open, or discoverable,
 2. If the customer's headphones are not pairing, verify that the headphones are not already paired with their phone. Many Bluetooth headphones can only pair with one device at a time.
- **XIR only:** If possible, have them open the console and determine whether they have the old or new style of Bluetooth board. If they have the old control board (see the following picture), send part 1000351780 to replace it.



CHAPTER 8: TROUBLESHOOTING

8.24 Stuck In Pulse Mode

Solution :

- Cycle power
 - Restore default settings
 - If the issue persists, enter Engineering mode and go to DAPI settings:
 1. Change the DAPI setting to Staging. Once changed, the console *should* show the newest software update as available.
- Note:** If the console does not show the update in staging mode, confirm that the console is connected to the Internet and then cycle power. If the update still does not show, restore the factory defaults.
2. Install the latest update to the console.
 3. Once the update is installed, do a full power cycle. Turn the machine completely off and power back on.
 4. Once powered back on, go back into the engineering mode. Go to the DAPI setting and change the setting back to Production.
 5. Verify that the correct frame type is set in the console.

8.25 Stuck in sleep mode

Solution:

Software update v1.3.4 will resolve this issue. Prior to v1.3.4, turn off Energy Saver Mode to prevent this issue (**Note:** While ESM is off, the console will still dim after a period of inactivity):

1. Cycle power
2. From the Go screen, enter Machine Settings.
3. Select the Hardware tab.
4. Unselect the Energy Saver checkbox.



8.26 Wi-Fi Test (For XR)

To quickly test Wi-Fi Connectivity (without performing user setup), follow these steps:

1. Disconnect your wireless device (laptop or smart phone) from its wireless network.
2. Press and hold the Wi-Fi button on your console.
3. Enter your time zone code on the console. (See the “time zone table” on the ViaFit website.)
4. On your device, connect to the network “Matrix XR”. (It may take a minute for the network to appear in your device’s network list.)
5. Open a web browser on your device and enter <http://10.10.100.254/dist/en/setup.html> (This is the ViaFit website. This alternative way of accessing the website will only work if you are successfully connected to “Matrix XR”.)
6. The Wi-Fi symbol on the console will change from blinking to solid when the connection is successful.

Important: The Wi-Fi symbol may disappear completely, for up to 2 minutes, before turning solid.

➤ Hardware issues may also prevent Wi-Fi from working properly:

- Check to see that the antenna is present in the console. Refurb has seen a few cases of the antenna missing or not working.
- The Wi-Fi chip may be bad. The chip comes on the UCB, so the UCB must be replaced.

8.27 Wrong Model Type

Scenario 1: When the console misidentifies a bike or elliptical frame as a treadmill, the Safety Key Error (Fig E) may occur.

- Try to short the safety key connection on the UCB (Fig F) and perform a console reset.
- Check the console cable for pinches or cuts (Fig G).
- Check connections on the LCB; on Ascents, you only need to remove the 4 screws holding the front cover.



Fig E



Fig F



Fig G

Scenario 2: If the console misidentifies the frame as a U30 upright bike, the console may pause during workouts because it fails to detect speed (RPM).

- Cycle power.
- If the issue remains, do a console reset in Engineering mode.

9.1 XR Console Control Board Replacement

- 1). Remove six screws to separate upper and lower console cover. (Figure A)
- 2). Again to remove six screws to open back cover. (Figure B)
- 3). Unplug console connected wire from control board. (Figure C)
- 4). Remove 14 screws to replace upper control board.



Figure A

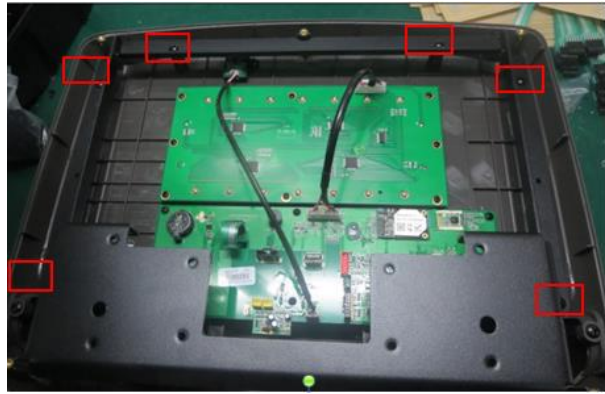


Figure B



Figure C

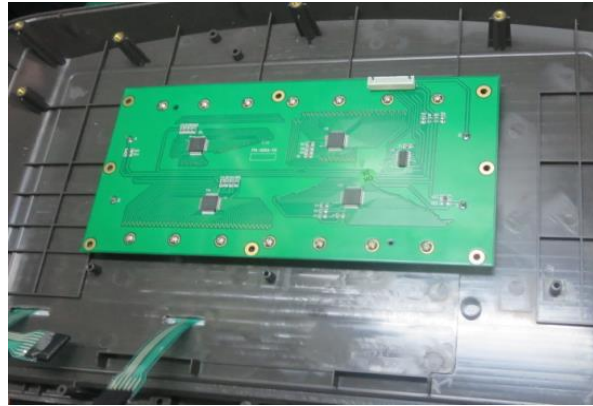


Figure D

9.2 Overlay Replacement (for XR)

- 1) Open the back of the console (refer to section 9.1)
- 2) Unplug the overlay ribbon cables
- 3) Remove the keypad from the front of the console
- 4) Remove the overlay from the console, replace with new parts



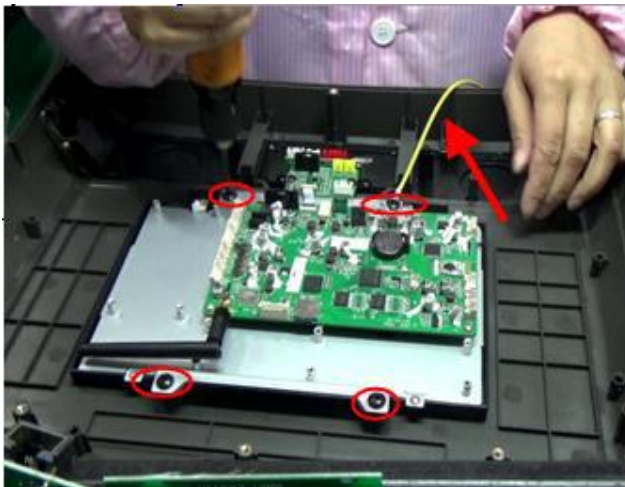
Figure A



Figure B

9.3 Touch Panel Replacement (for XIR and XER)

- 1) Open console cover, remove four screws securing TFT module.
- 2) Remove the yellow wire, and then replace TFT module.
- 3) Place new TFT module in the tray of water-proof rubber gasket;



9.4 Speaker Replacement

- 1) Remove audio input and output wire (figure 1) and (figure 2)
- 2) Remove the four screws (figure 3) and then take two speakers (figure 4) off to replace with new speakers;

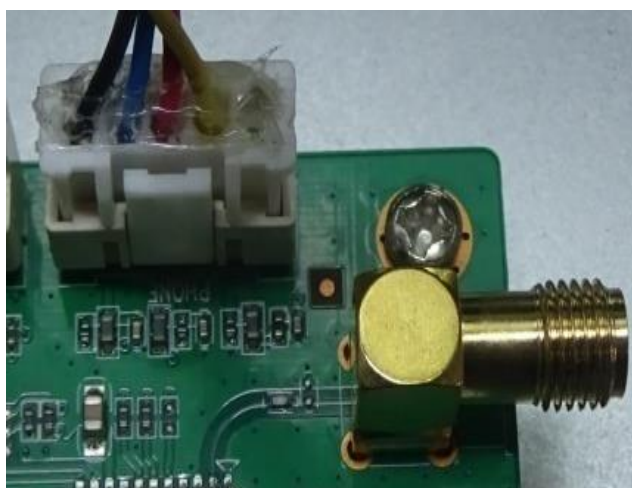


Fig 1

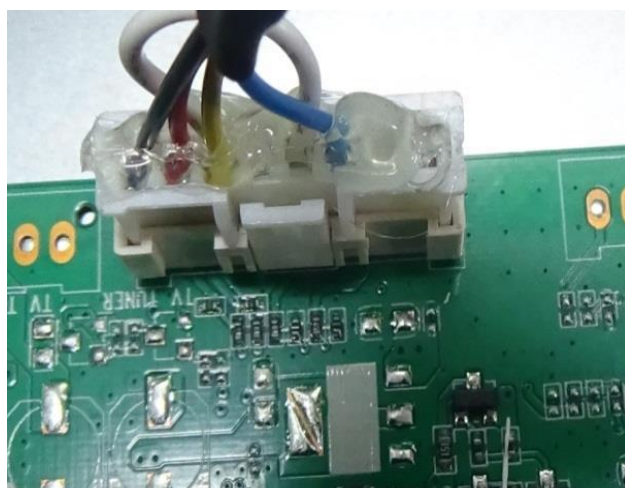


Fig 2

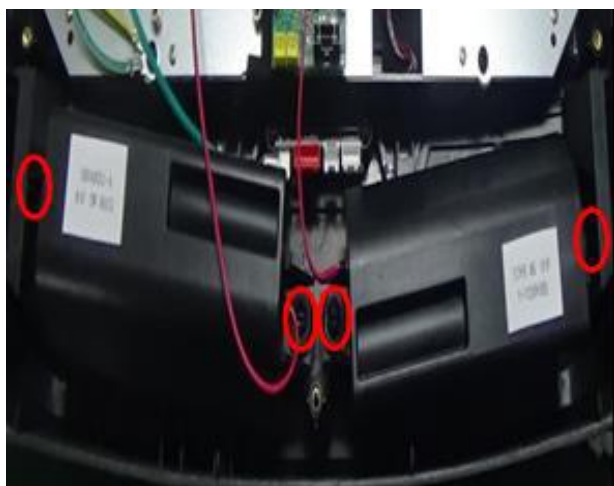


Fig 3

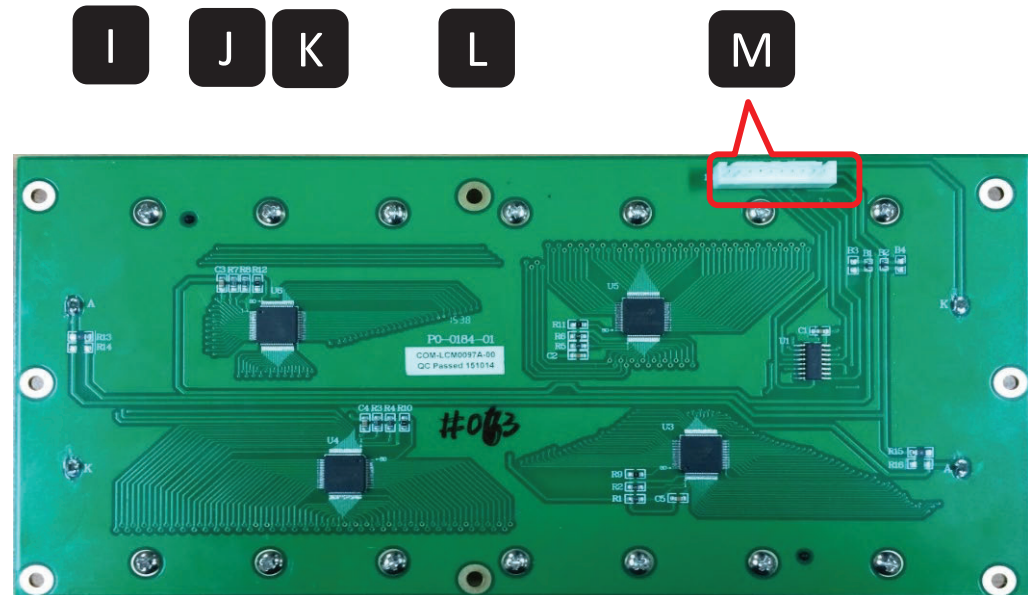
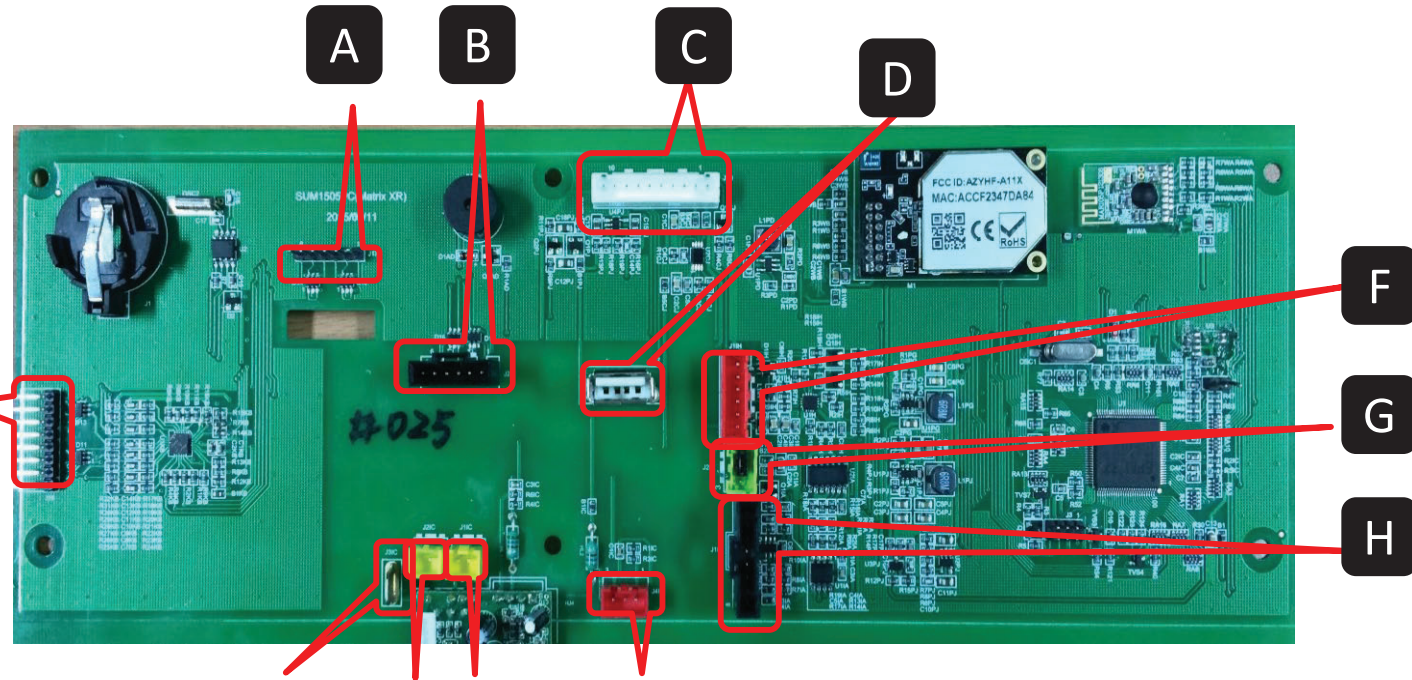


Fig 4

XR (CTM697) Upper Control Board

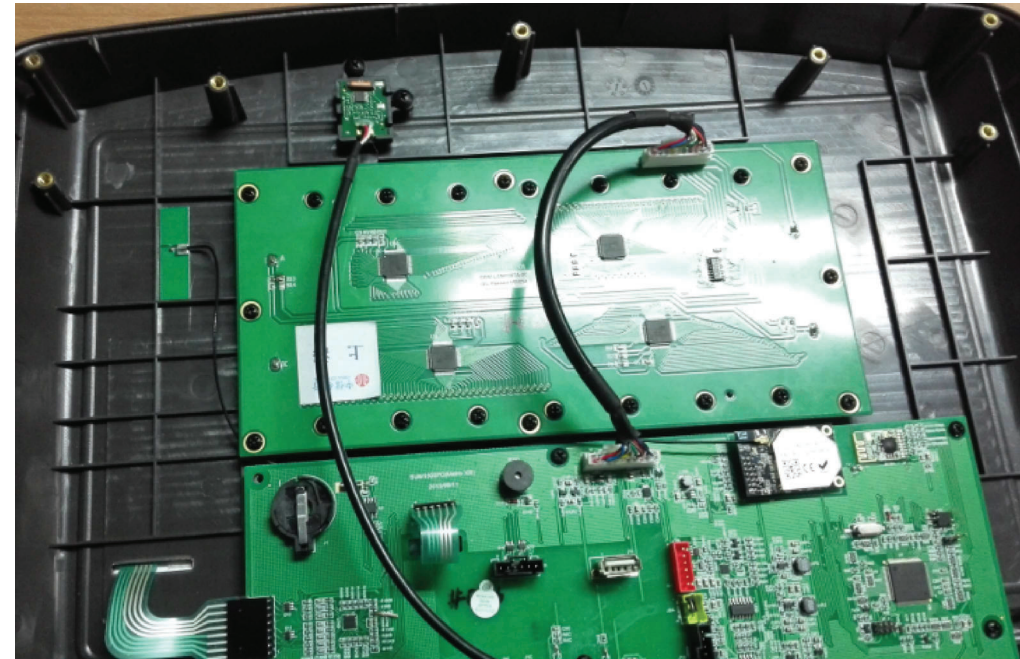
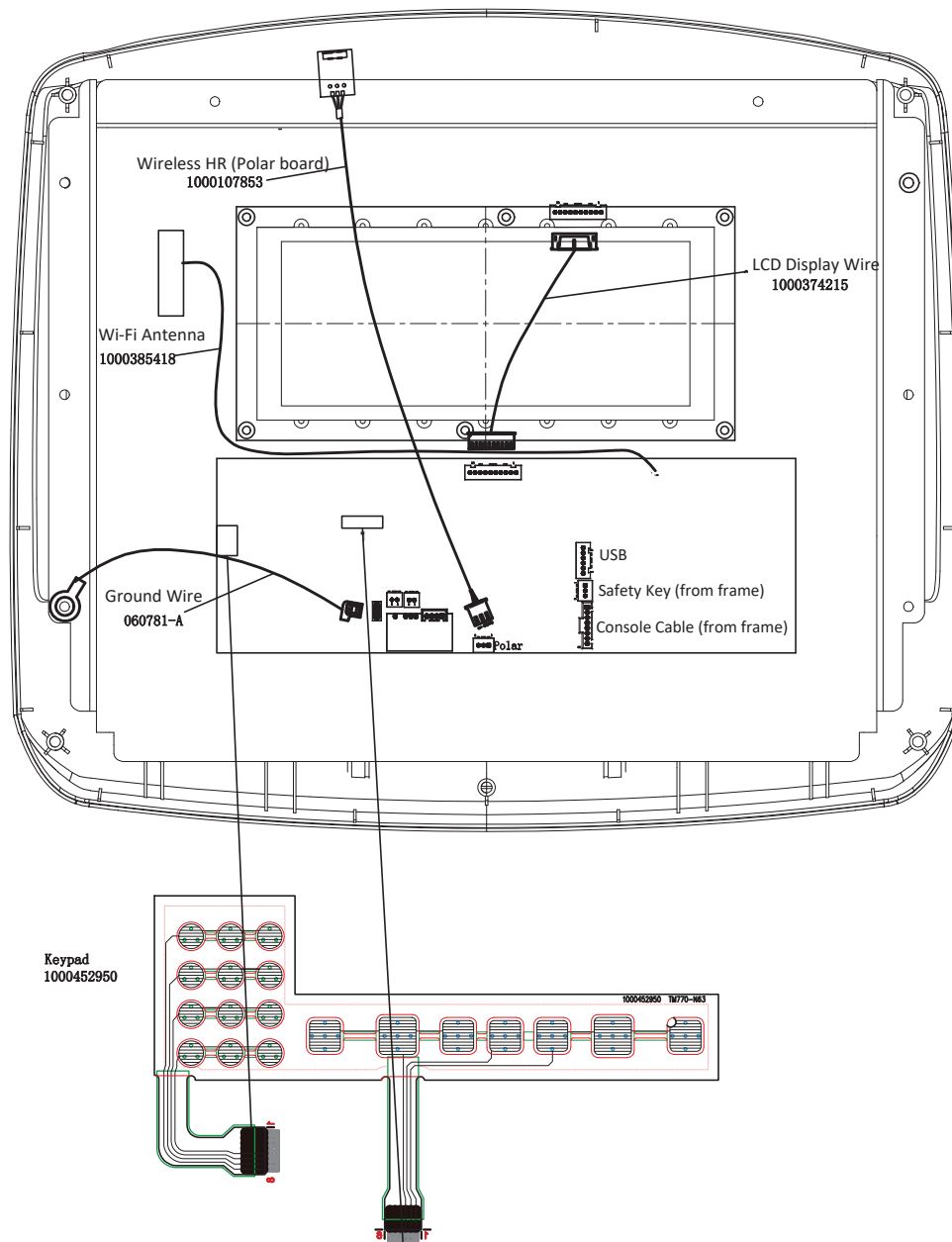
Console wiring diagram available on next page

- A. Program Keypad
- B. Quick Keys (from frame)
- C. LCD Display Port
- D. USB Port
- E. Program Keypad
- F. USB Interface
- G. Safety Key (from frame)
- H. Console Cable (from frame)
- I. Ground Wire
- J. Hand Grip L (from frame)
- K. Hand Grip R (from frame)
- L. Wireless HR (to Polar® board)
- M. LCD Display Port



Reverse side of UCB

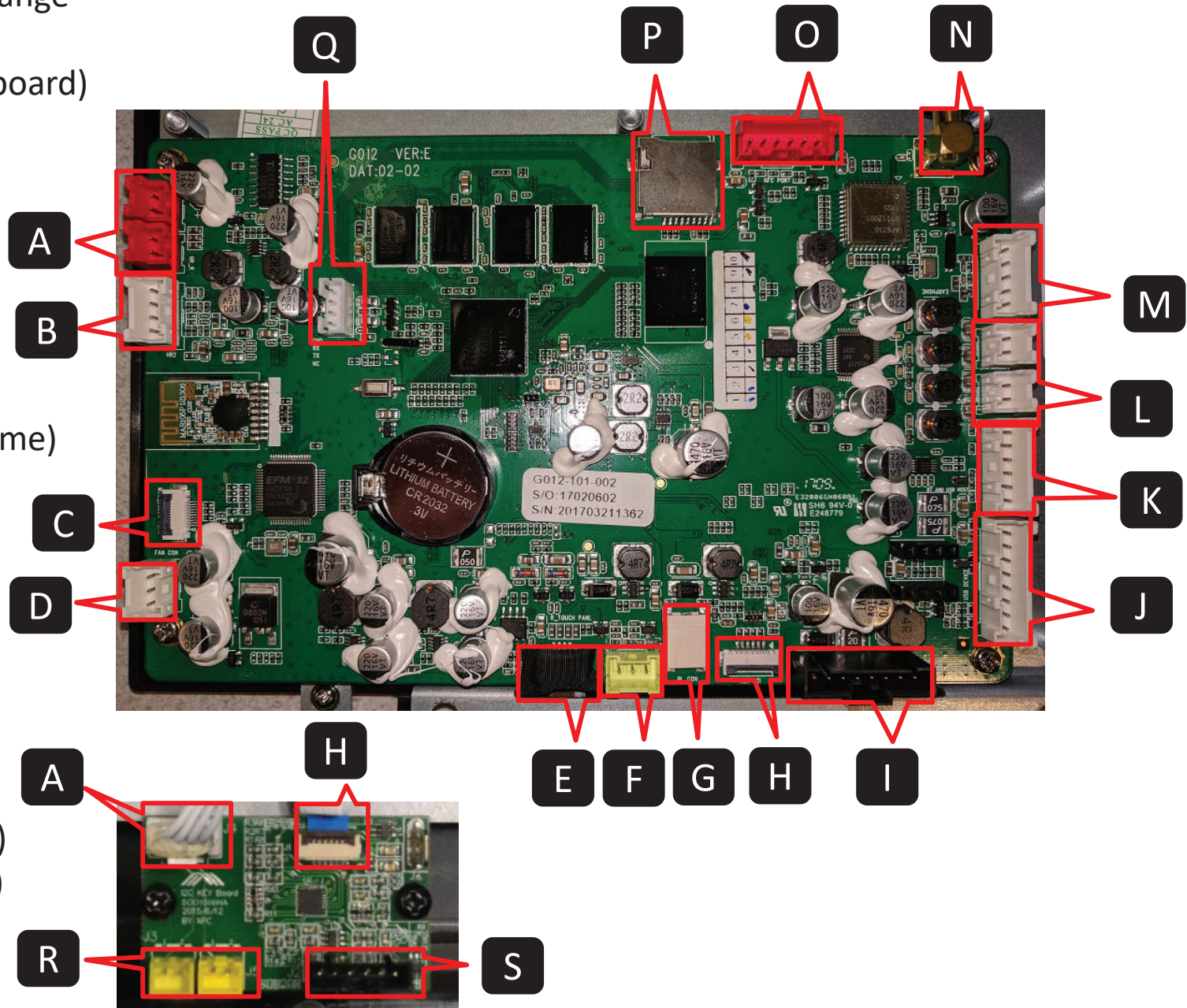
XR (CTM697) Wiring Diagram



XER (CTM698) Upper Control Board

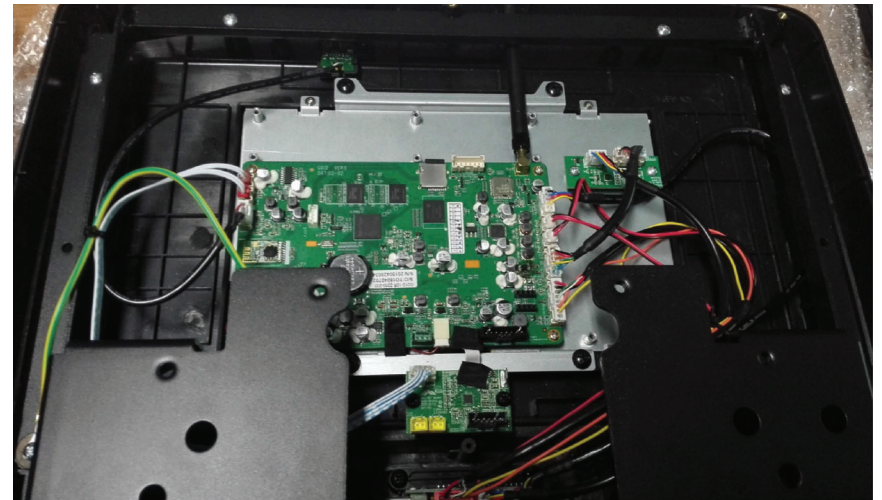
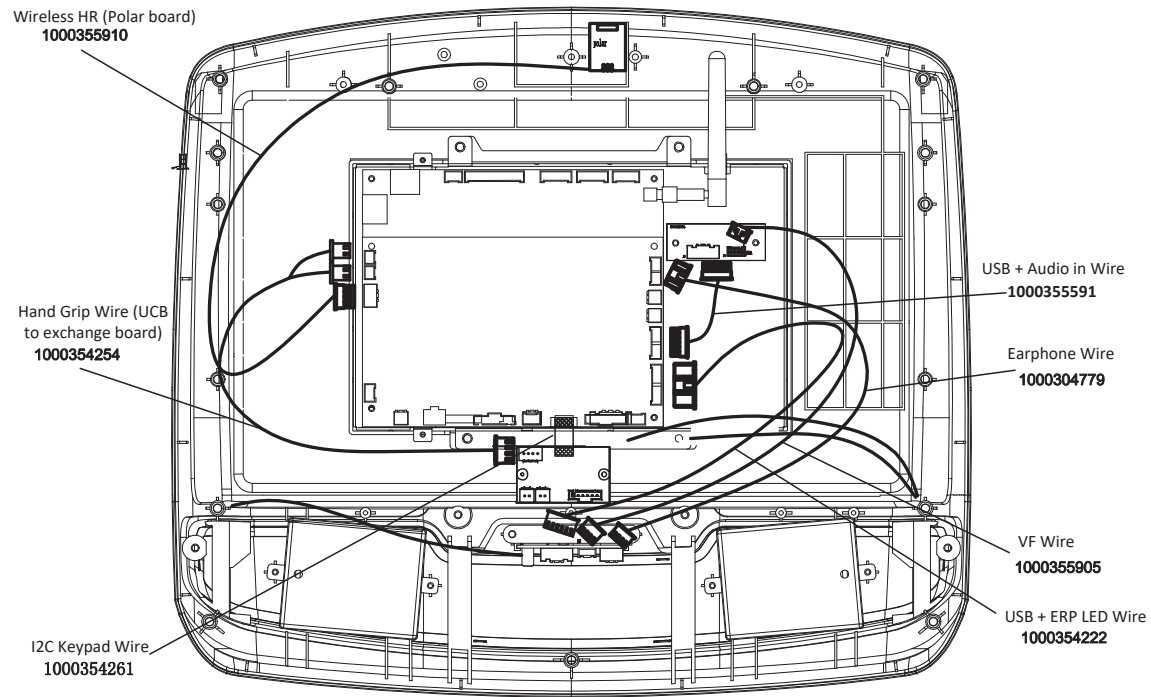
Console wiring diagram available on next page

- A. Hand Grip (UCB to exchange board)
- B. Wireless HR (to Polar® board)
- C. MCU Debug
- D. Fan
- E. Touch Panel
- F. Safety Key (from frame)
- G. TFT back light
- H. I2C Keypad (UCB to exchange board)
- I. Console Cable (from frame)
- J. USB + ERP LED
- K. USB + Audio in
- L. Speakers
- M. Earphone
- N. Wi-Fi Antenna
- O. NFC (Reserved)
- P. TF Card
- Q. Uart Print port
- R. Heart Rate (from frame)
- S. Quick keys (from frame)



Exchange Board

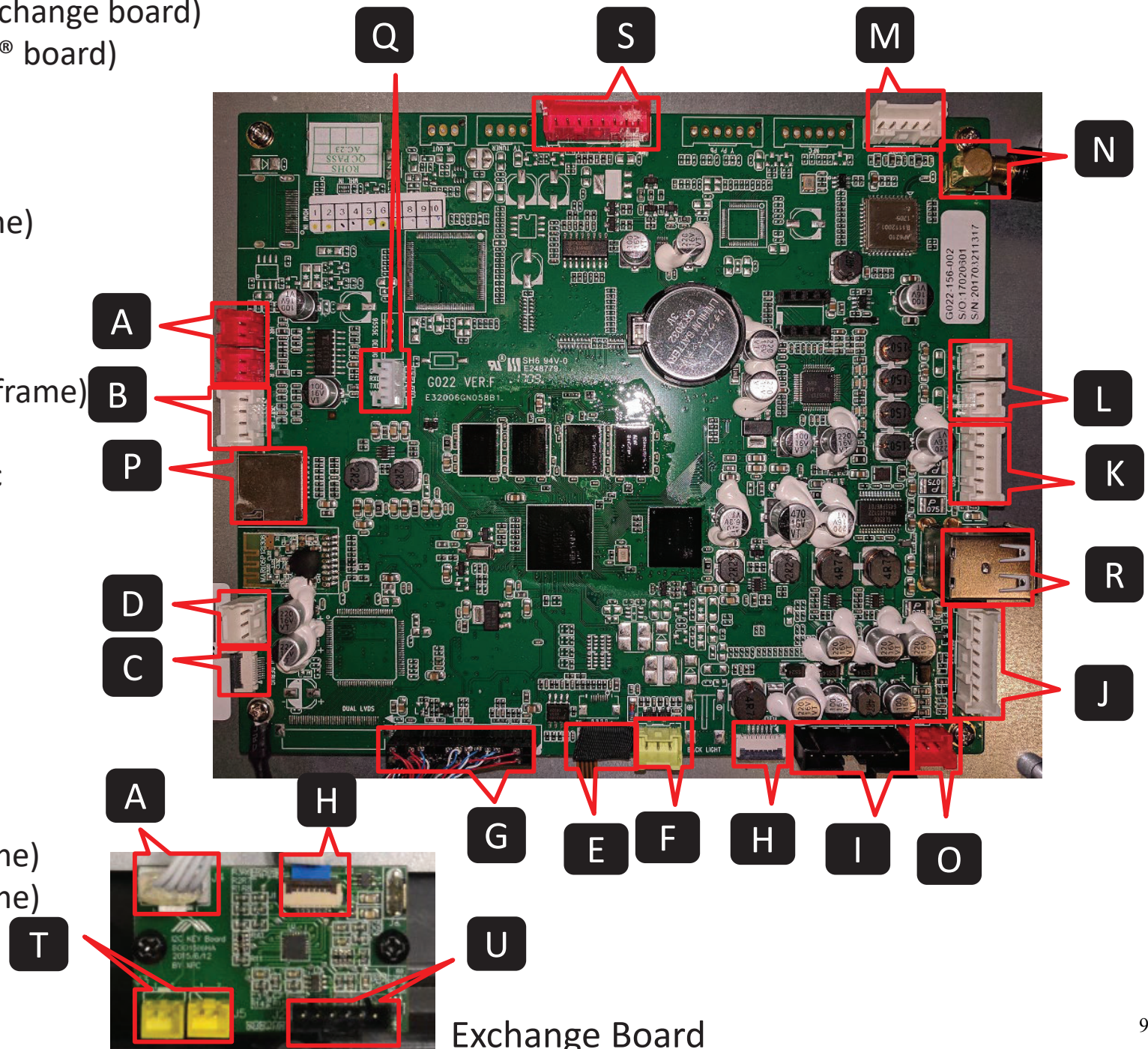
XER (CTM698) Wiring Diagram



XIR (CTM699) Upper Control Board

Console wiring diagram available on next page

- A. Hand Grip (UCB to exchange board)
- B. Wireless HR (to Polar® board)
- C. MCU Debug
- D. Fan
- E. Touch Panel
- F. Safety Key (from frame)
- G. TFT Backlight
- H. I2C Keypad (UCB to exchange board)
- I. Console Cable (from frame)
- J. USB + ERP LED
- K. USB + Bluetooth Sync
- L. Speakers
- M. Earphone
- N. Wi-Fi Antenna
- O. Battery
- P. TF Card
- Q. Uart Print Port
- R. USB
- S. Audio Line In
- T. Heart Rate (from frame)
- U. Quick Keys (from frame)



Exchange Board

XIR (CTM699) Wiring Diagram

