

MATRIX

**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

<input type="checkbox"/> TF30	<input type="checkbox"/> TF50	MATRIX FOLDING TREADMILL
<input type="checkbox"/> T50	<input type="checkbox"/> T70	MATRIX NON-FOLDING TREADMILL
<input type="checkbox"/> E30	<input type="checkbox"/> E50	MATRIX SUSPENSION ELLIPTICAL TRAINER
<input type="checkbox"/> A30	<input type="checkbox"/> A50	MATRIX ASCENT TRAINER LOWER BODY
<input type="checkbox"/> R30	<input type="checkbox"/> R50	MATRIX RECUMBENT CYCLE
<input type="checkbox"/> U30	<input type="checkbox"/> U50	MATRIX UPRIGHT CYCLE

* Use the information above when calling for service.

1.2 XR/XIR/XER CONSOLE OVERVIEW



2.1 XR CONSOLE DESCRPITON



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) WI-FI 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) WI-FI: Indicates wireless connection is present and the strength (low, medium, high). Flashes when Wi-Fi 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 WI-FI

Once you have created your xID account, you will be able to move on to activating the Wi-Fi 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 Wi-Fi 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 Wi-Fi network and connect.
- 4) The remaining step is to reconnect your computer or other device back to your Wi-Fi 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.



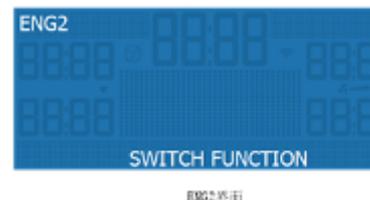
3.2 How to enter engineer mode

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 Engineer function description

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



ENG 3	Information	<ul style="list-style-type: none"> ● Accumulated information(Distance &Time) ● LCB software version ● UCB software version 	 
ENG 4	SET DAPI	<p>There are "Production", "QA", "Staging" and "DEV" servers. Must to select "Production"</p>	 

3.4 Other information

PASSPORT SYNC

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

ROOT

In standby page to hold key 9 till console showing "REBOOTING" to reset setting including Language, Model and Unit then back to standby page.



3.5 Software updating

1	Updating console software with USB Flash Driver, software releases will be seen on web.	 
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.	

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, Wi-Fi 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 Wi-Fi at this time, touch →.

3) Use the keyboard to enter your Wi-Fi network password. Touch ✓ to confirm.

4) Wi-Fi connection status and signal strength will be indicated by the Wi-Fi 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 Wi-Fi, 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.



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. .

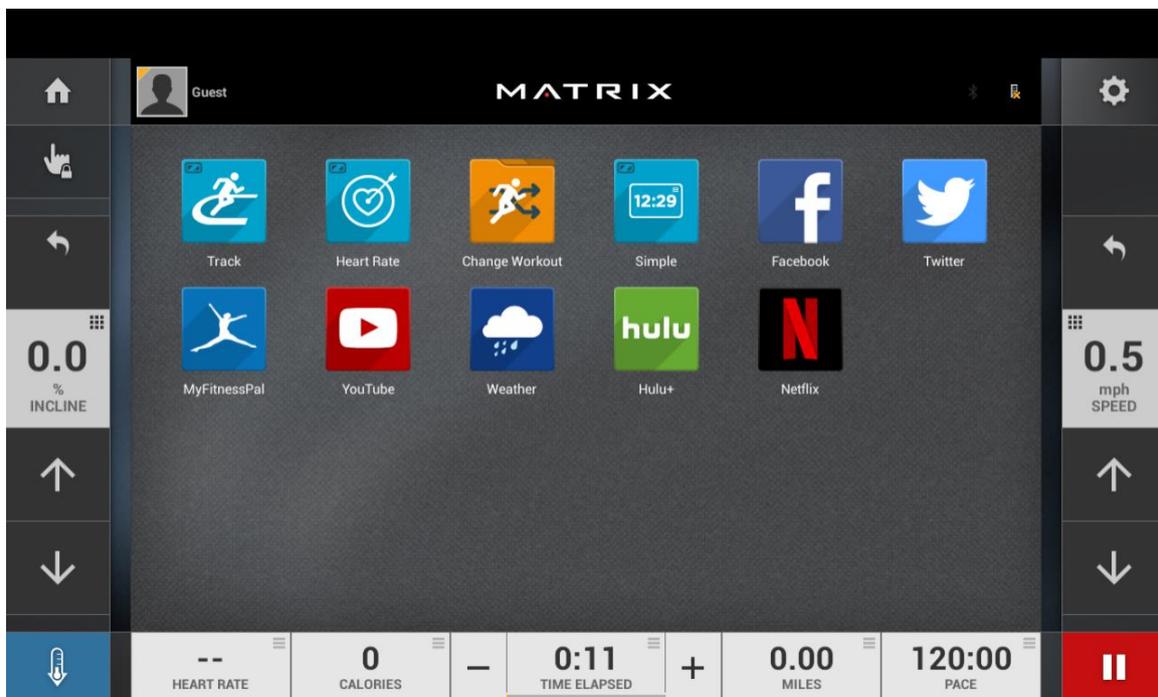
Option 2: Touch the **WORKOUT CATEGORY** button of your choice to customize your workout.

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.



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

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 Model type list

Model	Console	Model ID
RECUMBENT (R)	XER	R30XER/ R50XER
	XIR	R30XER/ R30XIR
UPRIGHT (U)	XER	U30XER/ U50XER
	XIR	U50XER/ U50XIR
ELLIPTICAL (E)	XER	SE30XER/ SE50XER
	XIR	SE30XIR/ SE50XIR
ASCENT (A)	XER	A30XER/ A50XIR
	XIR	A30XIR/ A50XIR
Treadmill (T)	XER	TF30XRE / TF50XER
		T50XER/ T70XER
	XIR	TF30XIE / TF50XIR
		T50XIR/ T70XIR

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.	

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	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.

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 its 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
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	
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 available, not in it's own tab.	Restore Factory Defaults				
Network Setup	Wifi	Mac	Wifi Setup		

	Address				
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				
Hardware	ISB Connection Mode	ERP	ERP Timeout	Backlight Brightness	Key Test
	Play Key Sound	Play Workout Countdown Sound	Master Volume	Headphone Insertions	Reset
Service	Service History				
Errors	Error Log				

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

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

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

CHAPTER 7: XIR/ XER CONSOLE SERVICE MODE

7.2 General

Category	Name	Model	Default	Range	Units	Comments
General	Screen Timeout	TAEUR	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	TAEUR	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	TAEUR	--	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	TAEUR	--	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	TAEUR	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	TAEUR	No Check	Check/No Check	--	Triggers the First Time Setup Wizard to run on the next boot up.
	Time Zone	TAEUR	Central Time	--	--	Values are scrollable from a drop down list
	Date	TAEUR	RTC Date	YY: 2000-2099 MM:01-12	--	Enter using keypad (Birthday keypad).

				DD:01-31		
Time	TAEUR	RTC Time	00-23:00-59:00-59	12/ 24 Hours		Read Only
Time Format	TAEUR	12 Hour	12 Hour, 24 Hour	--		
Language Setup	TAEUR	English (U.S.)	See Languages Table			Scrollable list.
Software Version	TAEUR		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	TAEUR		OS Version (from Manufacturer), IO Version, LCB Version			Read Only. Current software, pulled from the hardware.
DAPI Environment	TAEUR	Production	Dev, QA, Staging, Production	--		Indicates what server (URL) the console connects to for web connected services (workout tracking, web apps, asset management, DAPI).

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	TAEUR	120	10-120	minutes	--
	Maximum Workout Calories	TAEUR	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	TAEUR	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/ 2.3KPH	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

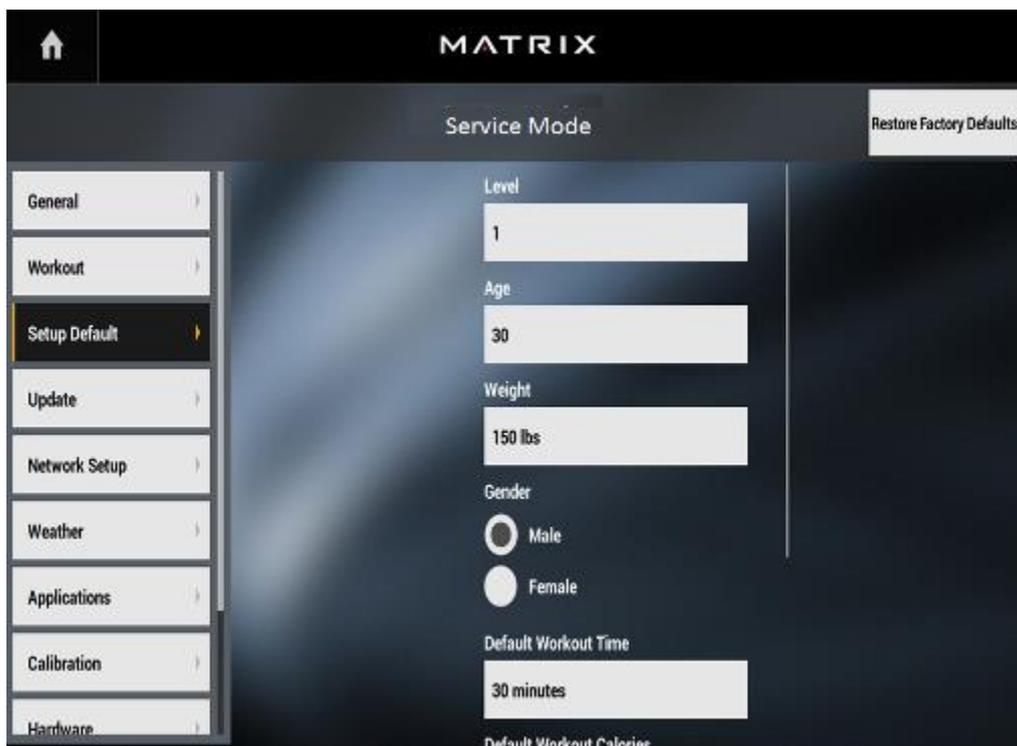
						the treadmill will start at if the user presses the 'Go' quick key.
	Maximum Incline	TA	(T)15 (A)100	(T)1.0-15.0 (A)1-100	(T)% Grade (A)%	
	Cool Down Time	TAEUR	5	1-20	Minutes	Maximum times a user can increase the cool down time = Maximum Cool Down Adjustment Time - Cool Down Time
	Maximum Cool Down Adjustment Time	TAEUR	5	1-20	Minutes	Maximum times a user can increase the cool down time = Maximum Cool Down Adjustment Time - Cool Down Time



CHAPTER 7: XIR/ XER CONSOLE SERVICE MODE

7.4 Setup default

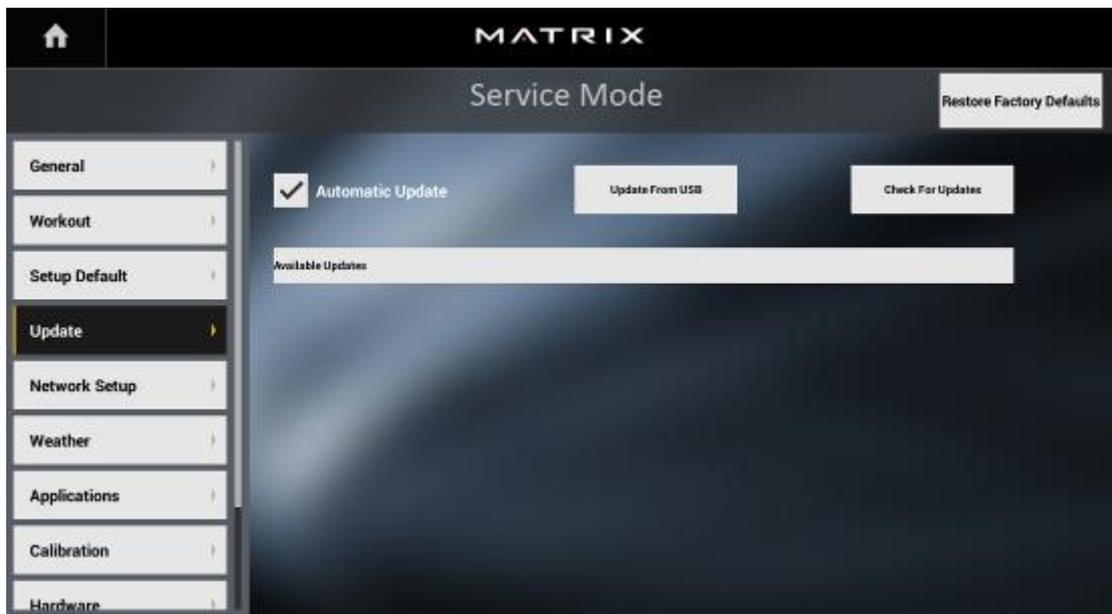
Category	Name	Default	Range	Units	Comments
Setup Default	Age	30	14-99	Years	
	Weight	150lbs/68kg	(TF30)50-350lbs/22-159kg (TF50/T50/T70)50-400lbs/22-181kg (E30/E50)50-325lbs/22-148kg (A30)50-325lbs/22-148kg (A50)50-350lbs/22-159kg (R30/R50)50-350lbs/22-159kg (U30/U50)50-350lbs/22-159kg	lbs/68kg	--
	Gender	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 workout distance	3.0mile/5.0km	0.6-max(mile and km)	Miles/Km	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

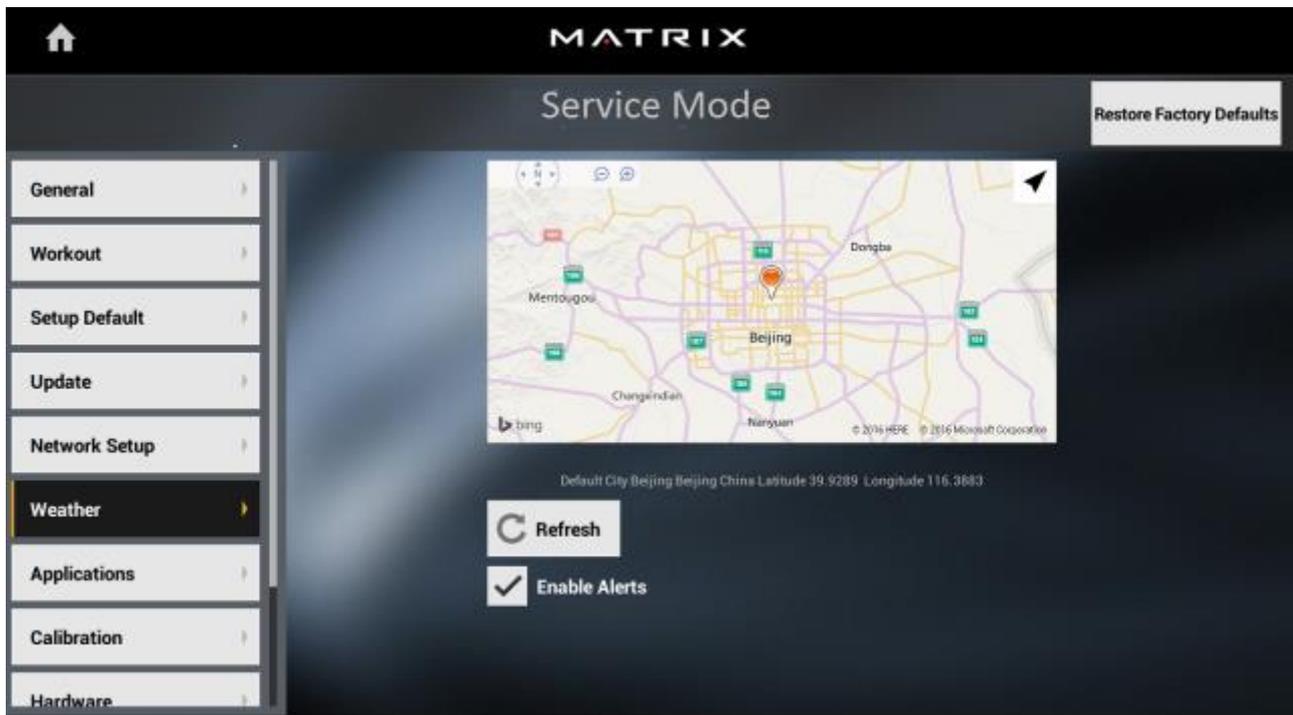
Category	Name	Default	Range	Units	Comments
Network Setup	Wifi Mac Address	Hardware Specified	0.0.0.0.0.0 - 255.255.255.25 5.255.255	Byte.Byte.Byte.Byte.Byte. ByteIn Hex	Mac address is PULLED. Read Only, should not show up if not connected to Wifi.
	Wifi Setup	--	--	--	Goes to the Wifi setup page.
Network 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

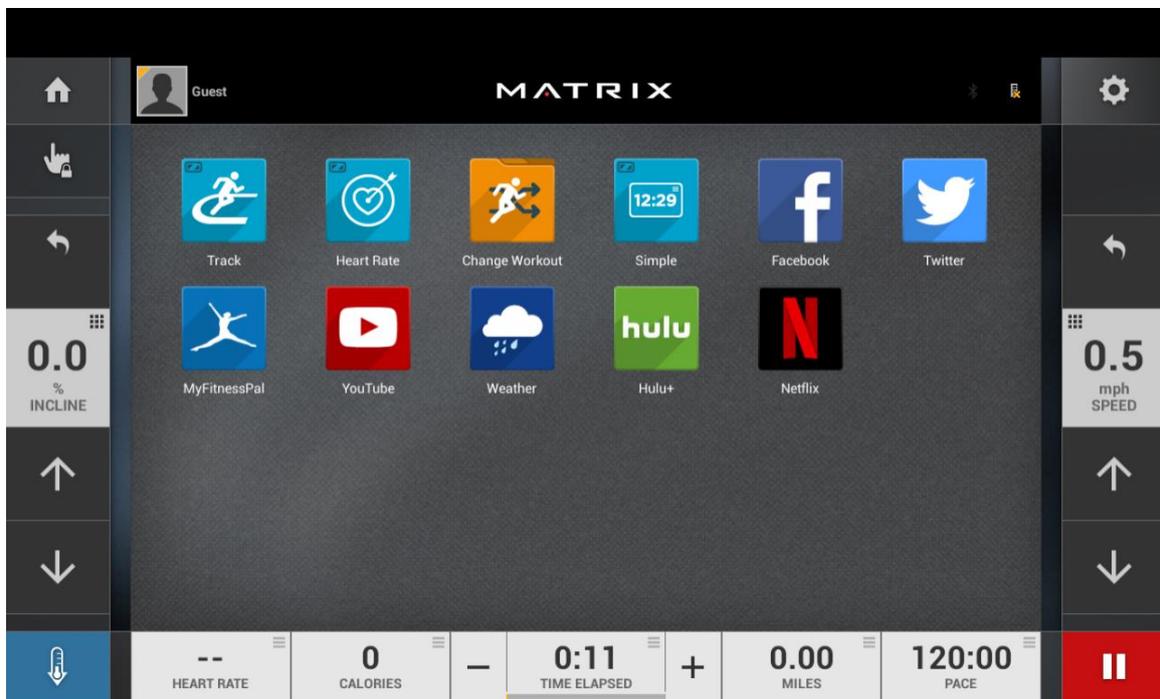
Category	Name	Default	Range	Units	Comments
Weather Note: Units (Fahrenheit/Imperial vs. Celsius/Metric) are determined by language - region. If a user authenticates using xID, the units will respect the preferred units as set in the user's profile settings. If guest user, the setting in service mode 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.



CHAPTER 7: XIR/ XER CONSOLE SERVICE MODE

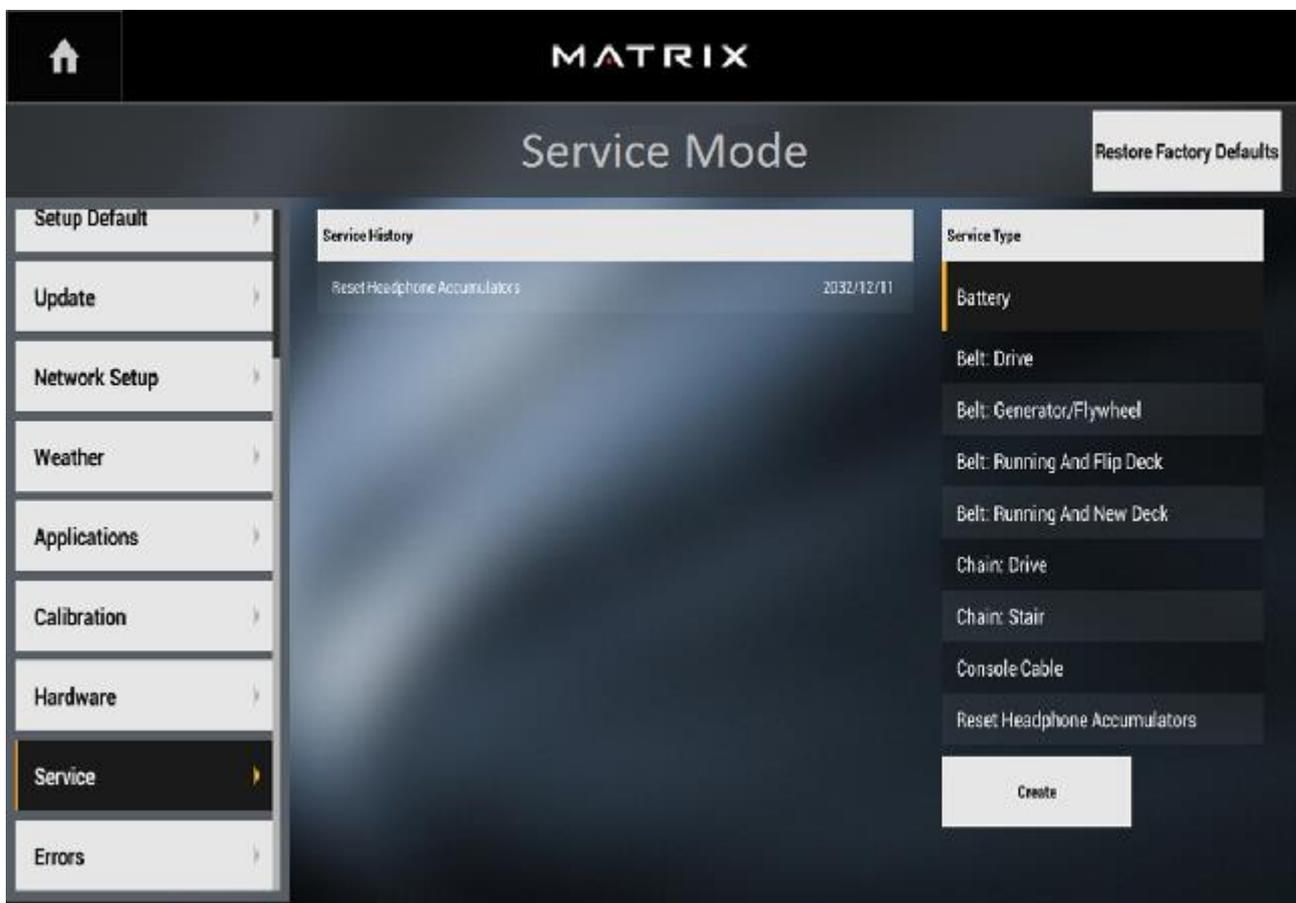
7.10 Hardware

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.

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

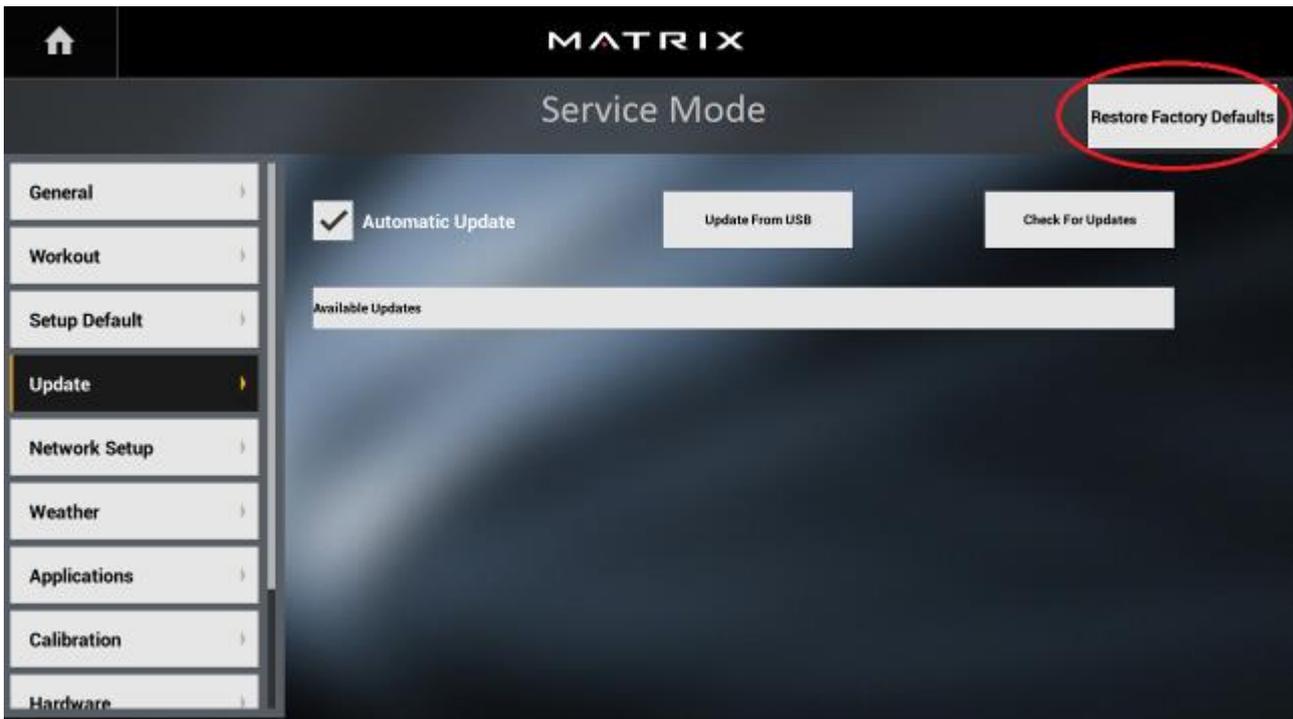
7.12 Errors

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

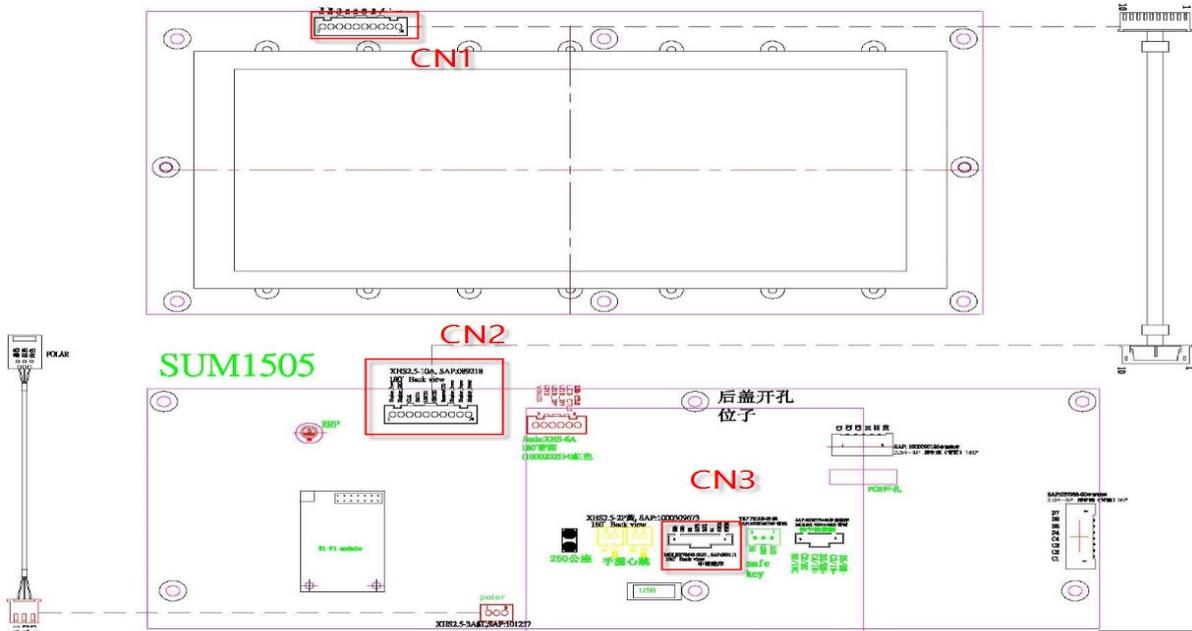
Category	Name	Default	Range	Units	Comments
Restore Factory Defaults Always available, not in it's own tab	Restore Factory Defaults	--	--	--	Resets various options, counters, and configuration values to defaults given to the factory for production. See the Factory Defaults Table for a list of options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



CHAPTER 8: TROUBLESHOOTING

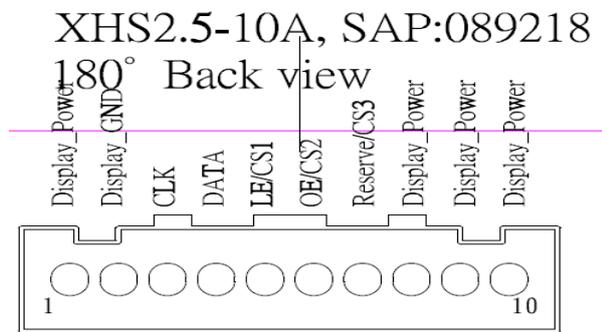
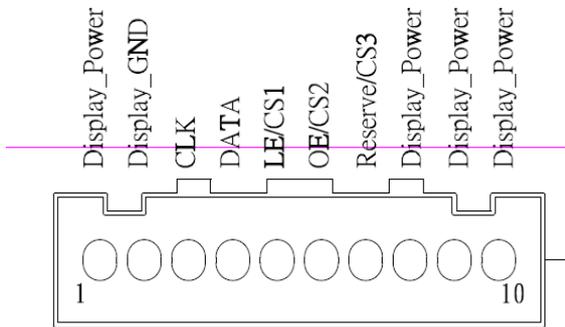
8.1 ELECTRICAL DIAGRAM

8.1.1 XR/XER/XIR Electrical Diagram

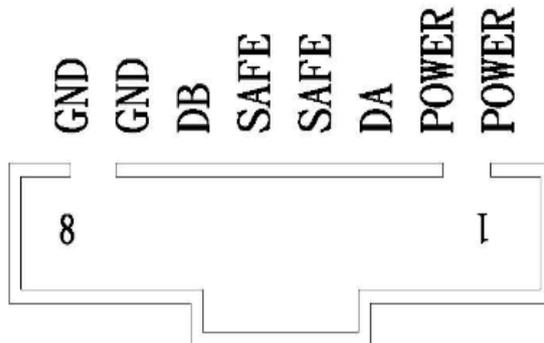


CN1

CN2



CN3

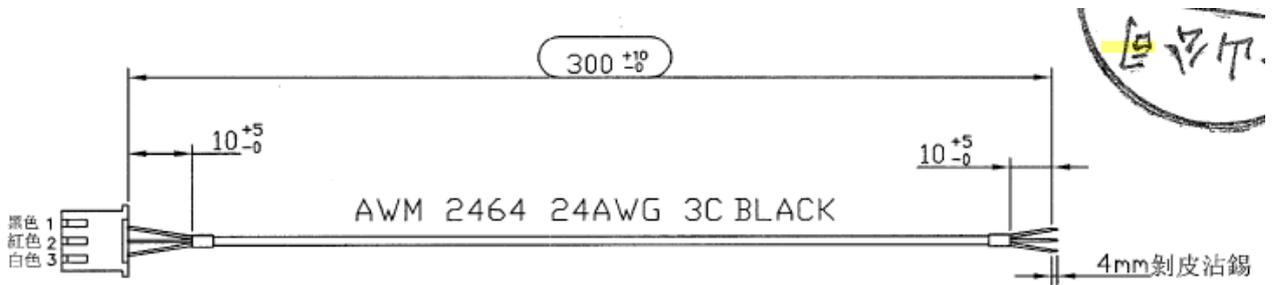


CHAPTER 8: TROUBLESHOOTING

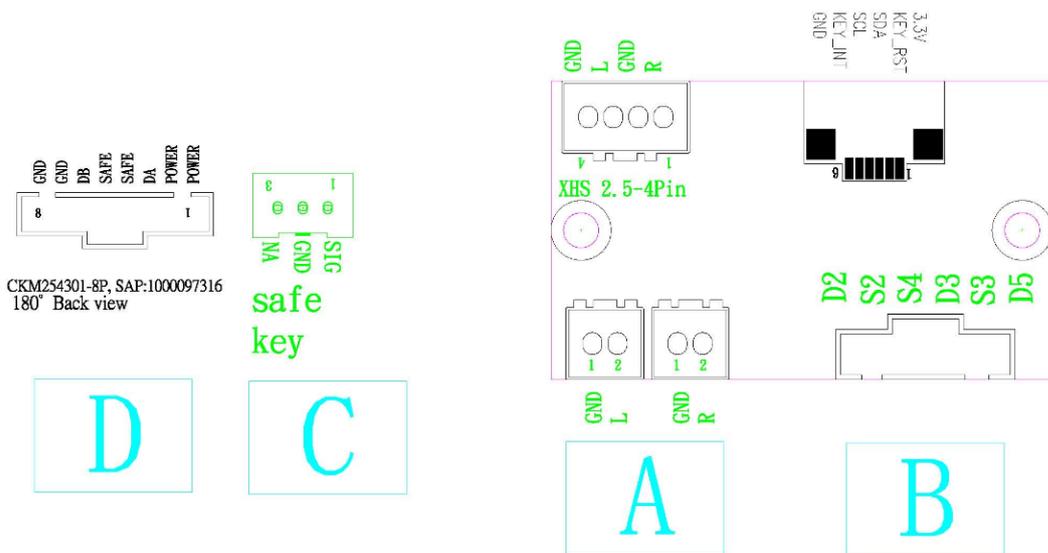
Display connect wire



Polar connect wire

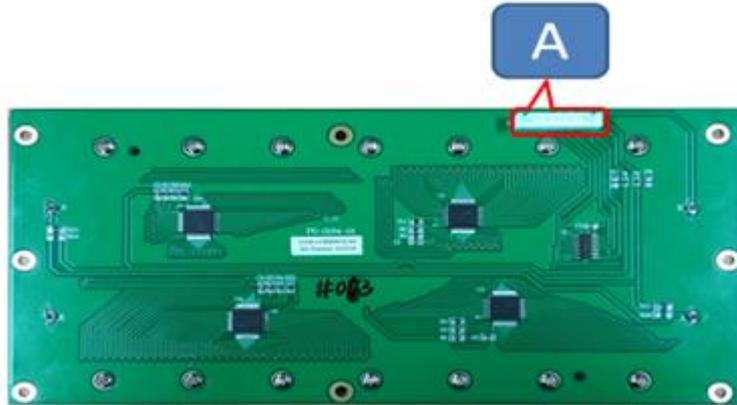


8.1 ELECTRICAL DIAGRAM

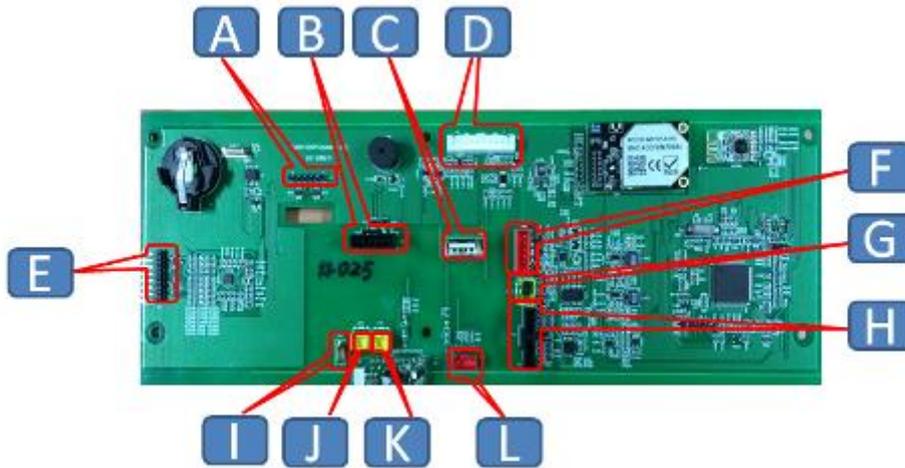


Connect to Frame

8.1.2 XR UCB Ports Description

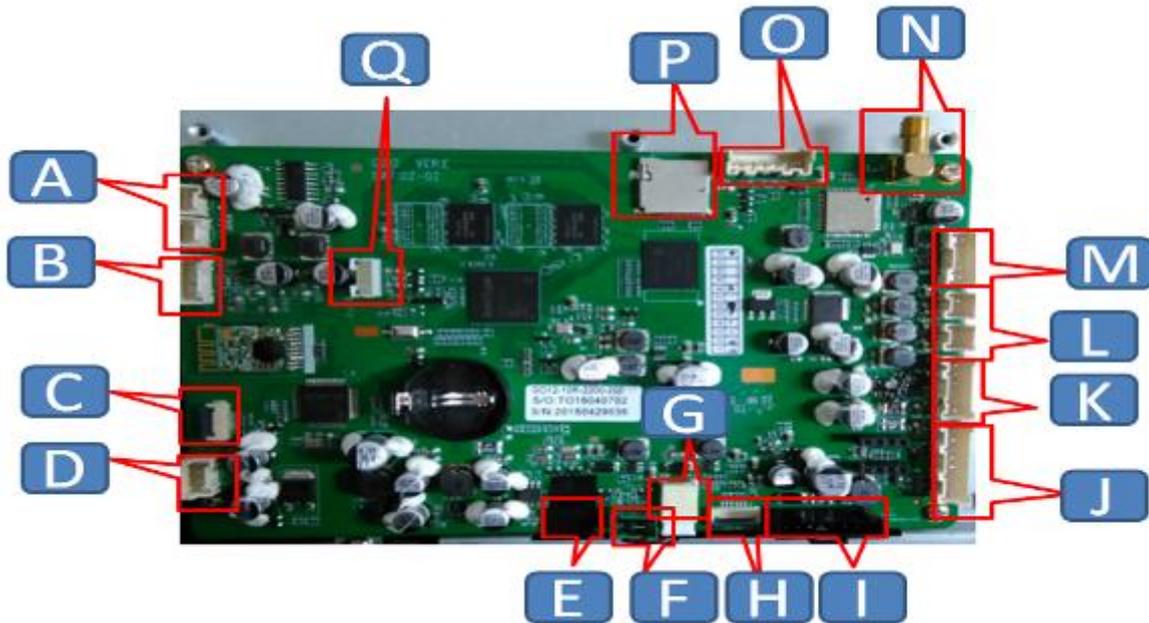


A	LCD Display Port
----------	------------------



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

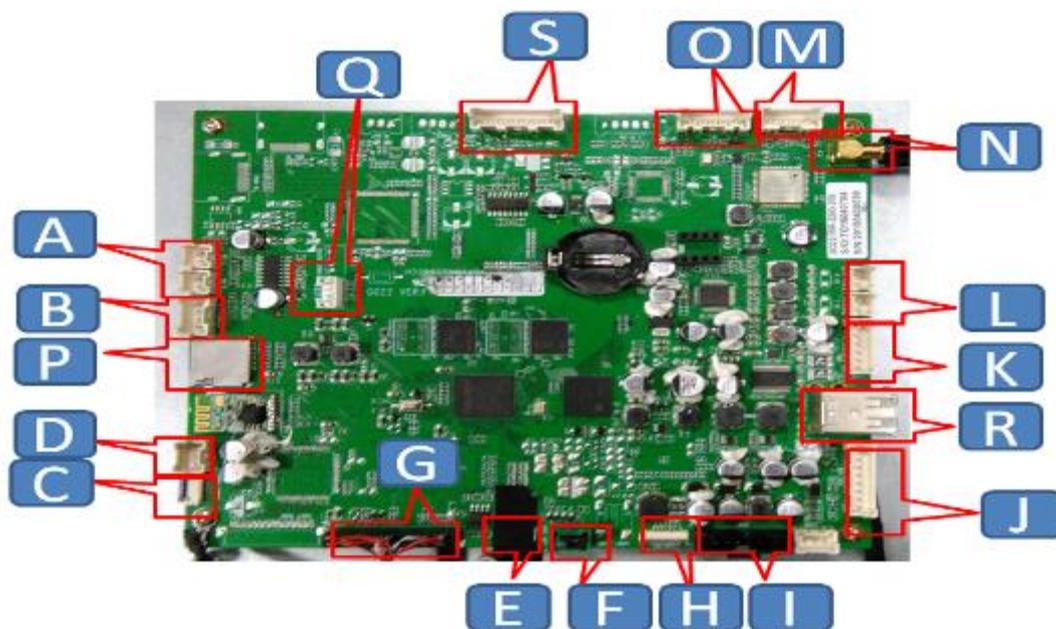
8.1.3 XER UCB Ports Description



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		

CHAPTER 8: TROUBLESHOOTING

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 reseat 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 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

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

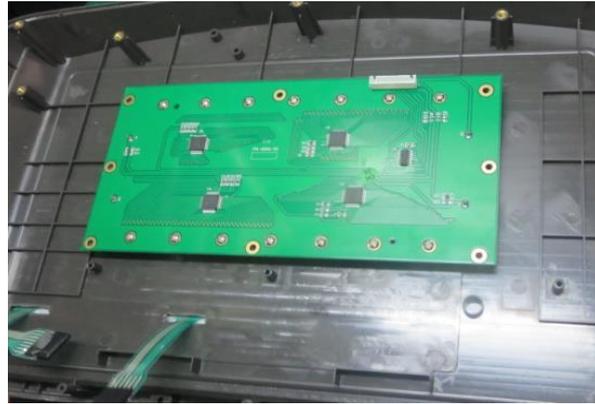


Figure D

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



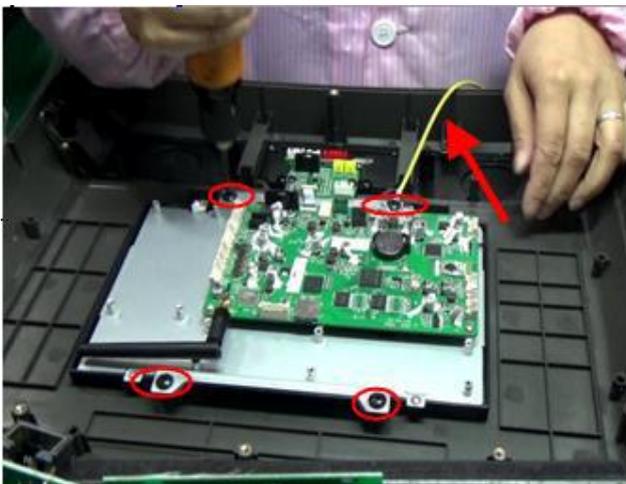
Figure A



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;

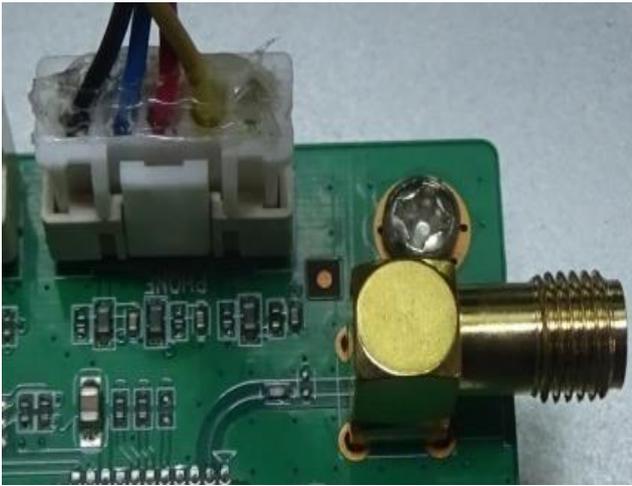


Fig 1

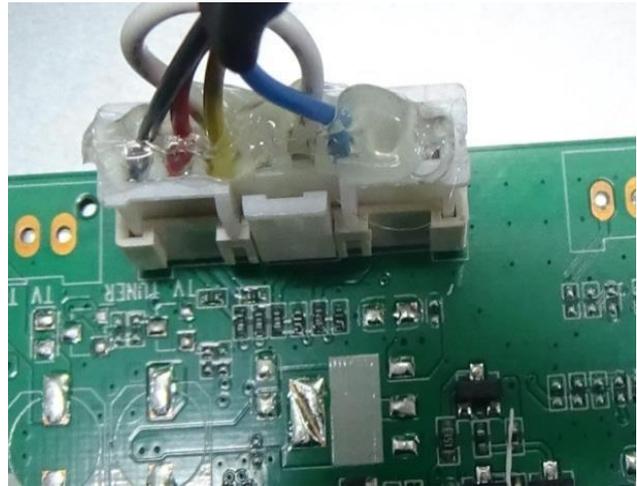


Fig 2

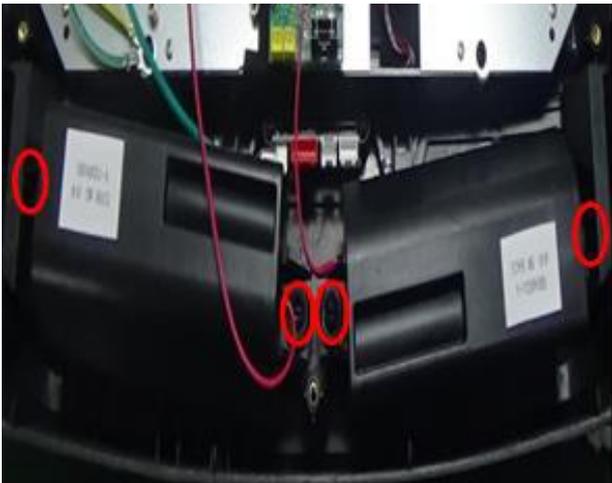


Fig 3



Fig 4