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Johnson Industries (Shanghai) Co., Ltd

7.4AT-04 Treadmill

Service Manual



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CHAPTER 1: SERIAL NUMBER LOCATION



CHAPTER 2 : PREVENTATIVE MAINTENANCE

Preventative Maintenance

Preventative maintenance is the key to smoothly operating equipment, as well as keeping the user's liability to a minimum. Equipment needs to be inspected at regular intervals. Defective components must be replaced immediately. Improperly working equipment must be kept out of use until it is repaired. Ensure that any person(s) making adjustments or performing maintenance or repair of any kind is qualified to do so.

Every Day (Daily)

Clean and inspect, following these steps:

- Turn off the treadmill with the ON / OFF switch, then unplug the power cord at the wall outlet.
- Wipe down the running belt, deck, motor cover, and console casing with a damp cloth. Never use solvents, as they can cause damage to the treadmill.
- Inspect the power cord. If the power cord is damaged, stop using and contact Customer Technical Support.
- Make sure the power cord is not underneath the treadmill or in any other area where it can become pinched or cut.
- Check the tension and alignment of the running belt. Make sure that the treadmill belt will not damage any other components on the treadmill by being misaligned.
- If any labels are damaged or illegible, contact Customer Technical Support for replacements.

Every Week (Weekly)

Clean underneath the treadmill following these steps:

- Turn off the treadmill with the ON / OFF switch, then unplug the power cord at the wall outlet.
- Fold the treadmill into the upright position, making sure that the lock latch is secured.
- Move the treadmill to a remote location.
- Wipe or vacuum any dust particles or other objects that may have accumulated underneath the treadmill.
- Return the treadmill to its previous position.

Every Month - Important!

- Turn off the treadmill with the ON / OFF switch, then unplug the power cord at the wall outlet.
- Inspect all assembly bolts of the machine for proper tightness.
- Remove the motor cover. Wait for ALL display screens to be off.
- Clean the motor and lower board area to eliminate any lint or dust particles that may have accumulated. Failure to do so may result in premature failure of key electrical components.
- Vacuum and wipe down the belt with a damp cloth. Vacuum any black/white particles that may accumulate around the unit. These particles may accumulate from normal treadmill use.

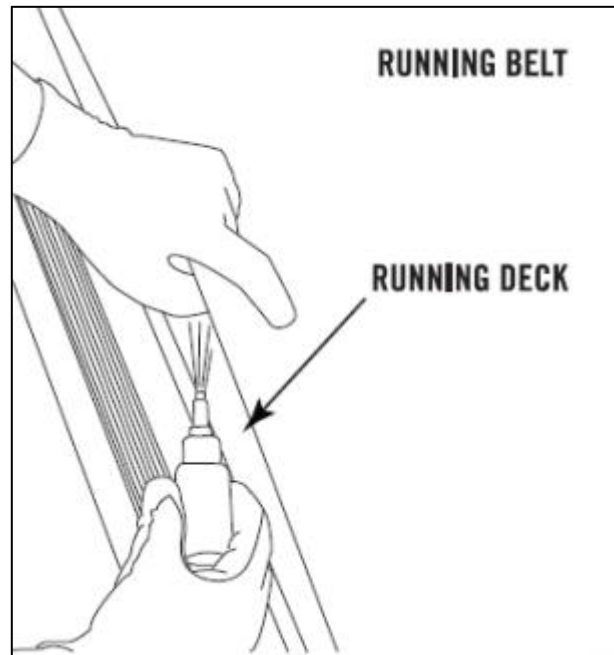
CHAPTER 2 : PREVENTATIVE MAINTENANCE

Every 6 Months Or 150 Miles

It is necessary to lubricate your treadmill running deck every six months or 150 miles (240 kilometers) to maintain optimal performance. Once the treadmill reaches 150 miles (240 kilometers), the console will display the message “LUBE” or “LUBE BELT”. The treadmill will not operate while the message is showing. Hold ‘STOP’ for 5 seconds to suspend message for 5 miles.

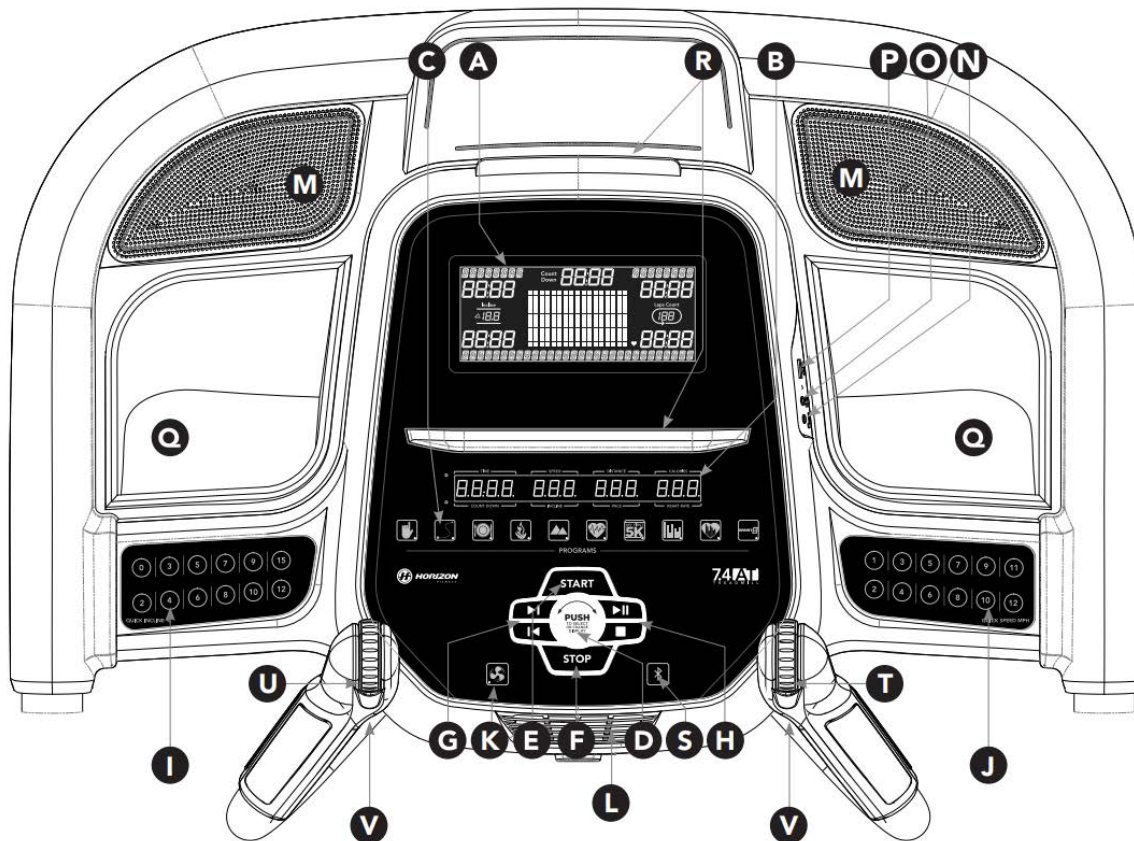
Your treadmill came with a bottle of lubricant which can be used for two applications.

- Turn off the treadmill with the on/off switch, then unplug the power cord at the wall outlet.
- Loosen both the rear roller bolts. (For best results, place two removable marks on both sides of the frame and note roller position). Once the belt is loosened, take the bottle of lubricant and apply it to the entire top surface of the
- Running deck. Tighten both rear roller bolts (matching up the marks for a proper position) to the original position. After you have applied lubricant, plug in the power cord, insert the safety key, start the treadmill and walk on the belt for two minutes to spread the lubricant.
- Lubricate the air shocks with Teflon based spray.
- When lubrication is complete, hold the “media play/pause” and “stop” keys for 5 seconds. This will remove the message.



CHAPTER 3 : CONSOLE INSTRUCTION

3.1 Console Operation



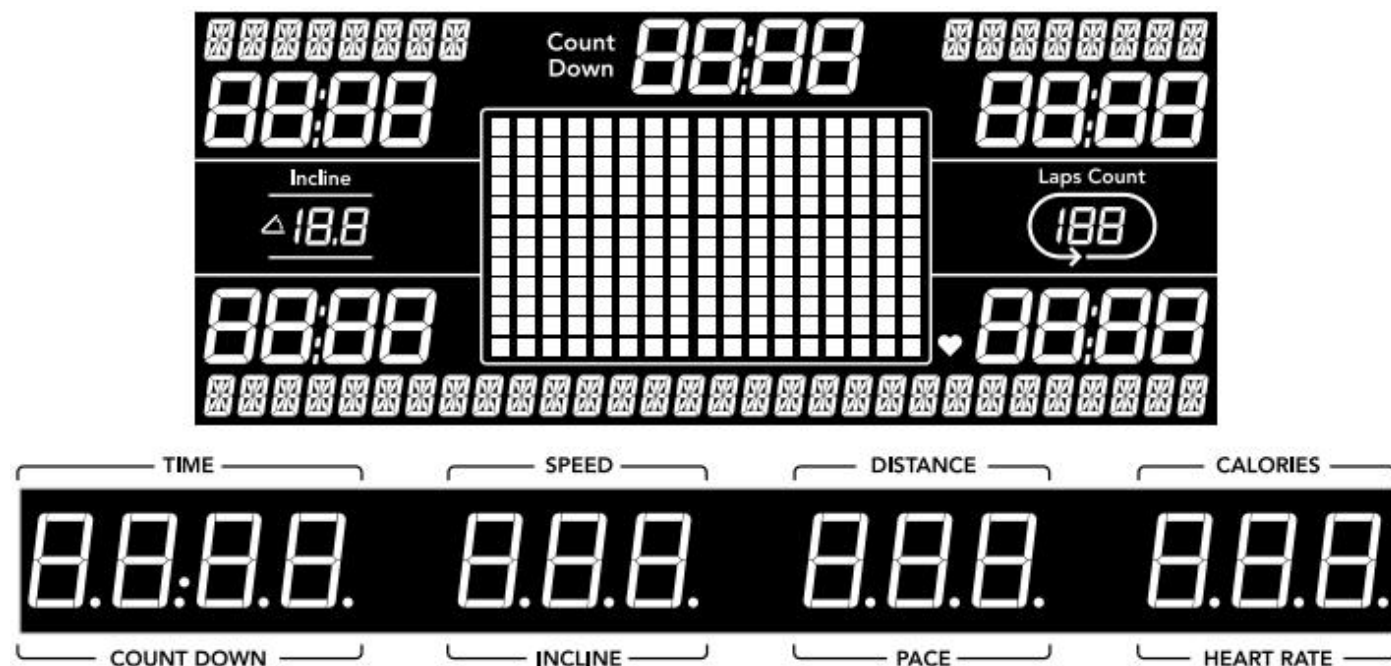
CONSOLE OPERATION

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:** See detailed description on page 18.
- B) **LED DISPLAY:** Time/Count Down, Speed/Incline, Distance/Pace, Calories/Heart Rate.
- C) **WORKOUT LED INDICATORS:** indicates what workout is set for the current program.
- D) **SELECT TARGET/WORKOUT KNOB:** rotate/press to select your desired workout/target
- E) **START:** press to begin exercising, start your workout, or resume exercising after pause.
- F) **STOP:** press to pause/end your workout. Hold for 3 seconds to reset the console.
- G) **MEDIA SKIP KEYS:** used to skip to previous or next audio track.
- H) **MEDIA RUN/PAUSE/STOP KEYS:** top button used to pause/play media, bottom button stops media.
- I) **INCLINE QUICK KEYS:** used to reach desired incline more quickly.
- J) **SPEED QUICK KEYS:** used to reach desired speed more quickly.
- K) **FAN KEY:** press to turn fan on and off.
- L) **FAN:** personal workout fan.
- M) **SPEAKERS:** music plays through speakers when your CD / MP3 player is connected to the console.
- N) **AUDIO IN JACK:** plug your CD / MP3 player into the console using the included audio adaptor cable.
- O) **AUDIO OUT / HEADPHONE JACK:** plug your headphones into this jack to listen to your music through the headphones.
Note: when headphones are plugged into the headphone jack the sound will no longer come out through the speakers.
- P) **USB INPUT:** 1A/5V USB output power.
- Q) **WATER BOTTLE POCKETS:** holds personal workout equipment.
- R) **TABLET/READING RACKS:** holds tablet or reading material.
- S) **BLUETOOTH INDICATOR LIGHT:** displays when machine is paired with a Bluetooth compatible device.
- T) **SPEED SCROLL WHEEL:** used to adjust speed in small increments (.1 MPH).
- U) **INCLINE SCROLL WHEEL:** used to adjust incline in small increments (.5%).
- V) **INTERVAL KEYS:** these are programmable keys. When an user is selected, they can be programmed to a desired speed and incline setting.

CHAPTER 3 : CONSOLE INSTRUCTION

3.2 Display Window



DISPLAY WINDOWS

- **TIME:** Shown as minutes : seconds. View the time remaining or the time elapsed in your workout.
- **DISTANCE:** Shown as miles. Indicates distance traveled during your workout.
- **SPEED:** Shown as MPH. Indicates how fast your walking or running surface is moving.
- **INCLINE:** Shown as percent. Indicates the incline of your walking or running surface.
- **CALORIES:** Total calories burned during your workout.
- **HEART RATE:** Shown as BPM (beats per minute). Used to monitor your heart rate (displayed when contact is made with both pulse grips).
- **PACE:** Indicates how many minutes it takes to complete a mile while running or walking at your current speed.
- **WATTS:** Indicates the power output at your current speed and incline.
- **CALORIES/ HOUR:** Indicates the number of calories you will burn in an hour at your current speed and incline
- **TRACK:** Follows progress around a simulated track. Segments light up with every 50 meters completed.
- **LAPS:** Shows how many 400 meter (¼ mile) laps have been completed.
- **COUNT (SPRINT 8):** Shows how many Sprint 8 program sprints you have completed

CHAPTER 3 : CONSOLE INSTRUCTION

3.3 Function Instruction

P1: Manual	P2: Distance	P3: Calories	P4: Fat Burn
P5: Hill Climb	P6: Target Heart Rate	P7: My First 5K	P8: Custom
P9: Custom Heart Rate	P10: Sprint 8		

MANUAL: Control everything about your workout – from start to finish. This program is a basic workout with no predefined settings, allowing you to manually adjust the machine at any time. It begins with an incline at 0 and speed at 0.5 mph.

HILL CLIMB: Simulates a hill ascent and descent. This program helps tone muscle and improve cardiovascular ability. Incline changes and segments repeat every 30 seconds.

MY FIRST 5K: This 9-week program is intended for inexperienced runners looking to run their first 5k or simply begin an exercise routine. It is designed specifically to keep you motivated and engaged, gradually building your strength, increasing your stamina and giving you the confidence it takes to complete your first 5k.

FAT BURN: Relatively slow and steady is the name of the game to maximize your weight-loss goals. Promotes weight loss by increasing and decreasing the speed and incline, while keeping you in your fat-burning zone.

CUSTOM: Allows you to create and reuse your perfect workout with a combination of specific speed, incline and time or distance. The ultimate in personal programming. This is a time or distance based goal program.

DISTANCE: Push yourself and go further during your workout with 13 distance workouts. Choose from 1 mile, 2 miles, 5k, 5 miles, 10k, 8 miles, 15k, 10 miles, 20k, half marathon, 15 miles, 20 miles, and marathon goals. You set your level.

CALORIES: Set goals for burning calories from 20 to 980 calories in 20 calorie increments. You set your level to keep you in your fat-burning zone.

TARGET HEART RATE: This program is designed for you to improve your overall cardiovascular fitness levels. You simply set your target heart rate. The program will then monitor and adjust the intensity level to maintain your heart rate within your targeted range while you exercise – a proven method to maximize your weight loss and fitness goals. A chest strap is required and must be worn during the duration of this program. See below for calculating your target heart rate.

CUSTOM HEART RATE: This program allows you to set your Heart Rate for a specified time. The program will adjust the incline to keep your Heart Rate in your target zone. Build multiple Heart Rate targets into a full program to help you reach your cardiovascular goals. The program total time includes a 4-minute warm-up and 4-minute cool downtime. Your selected custom heart rates will repeat after the warm-up until 4 minutes before the total time expires.

SPRINTS 8: A time-based program that allows you to select a level. After the warm-up, the program will give you 30 seconds at a high speed and intensity, alternating with 90 seconds at a slower recovery speed. Increasing levels will allow you to keep your calorie burn high and increase your overall running speed.

3.4 Engineering Menu

To enter the engineering menu, press and hold the incline "15" and speed "12" buttons on the console.

CHAPTER 3 : CONSOLE INSTRUCTION

3.4 Engineering Menu

ENG No	Function	Sub Function		Operation	Display shows
0	Display Test	0	Ready	Press incline ↑ and speed ↓ at same time for 3 sec	
		1	All keys light up	Press "Push to Select"	
		2	All keys light off	Press "Stop"	
		3	Individual keys will display unique key mapping number	Press any button on console	
		Escape		Press "Stop" for 3 sec	
1	Hardware Test	0	Ready	Rotate "Push to Select" clockwise or speed/incline ↑ arrow	
		1	RPM Reading vs Set RPM	Press "Push to Select" and press "Start" to test. Use speed arrows to adjust RPM to compare and hold "Stop" to exit	
		2	MAC Adress	Press "Push to Select"	
		3	BT Version	Press "Push to Select"	
		Escape		Press "Stop" for 3 sec	
2	Not Available		No Function	Rotate "Push to Select" clockwise or speed/incline ↑ arrow	

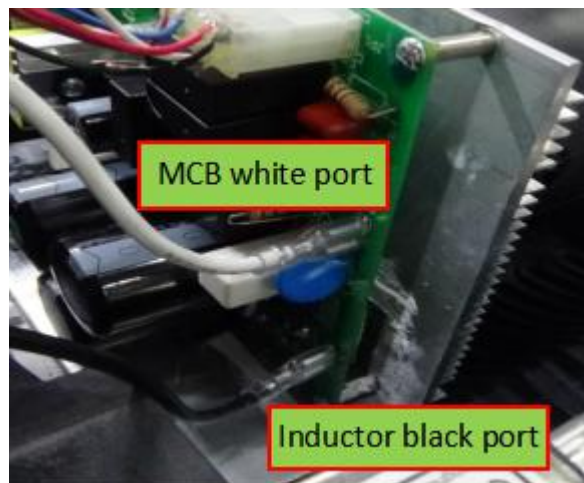
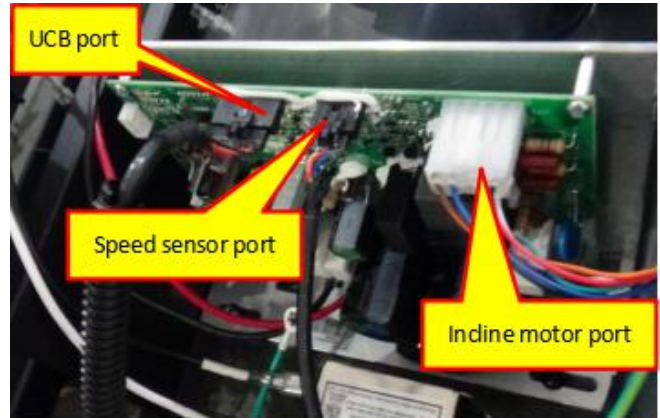
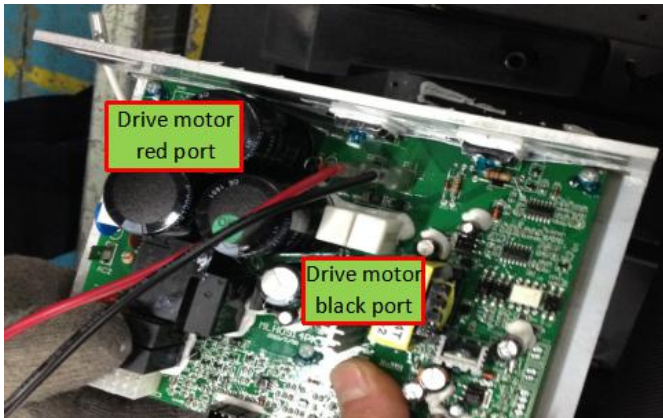
CHAPTER 3 : CONSOLE INSTRUCTION

3.4 Engineering Menu

3	Switch Function	0	Ready	Rotate "Push to Select" clockwise or speed/incline ↑ arrow	
		1	Unit Change Between Miles and Kilometers	Press "Push to Select" and use "Push to Select" dial to change preference and Press "Push to Select" to enter	
		2	Energy Save	Press "Push to Select" and use "Push to Select" dial to change on or off and Press "Push to Select" to enter	
		3	Boot (reset all parameters)	Press "Push to Select" and use "Push to Select" dial to change on or off and Press "Push to Select" to enter	
		Escape		Press "Stop" for 3 sec	
4	Information	0	Ready	Rotate "Push to Select" clockwise or speed/incline ↑ arrow	
		1	Accumulated Time and Distance	Press "Push to Select"	
		2	UCB Version	Press "Push to Select"	
		3	MCB Version	Press "Push to Select"	
		Escape		Press "Stop" for 3 sec	

CHAPTER 4 : TROUBLESHOOTING

4.2 MCB Instruction



LED	REFERENCE DESIGNATOR
LED 1	Busbar voltage indicator
LED 2	+15V
LED 4	+5V
D20	Error indicator

D20 instruction								
Error	CPU work normally	Opticor encoder fault	Overload	Acceleration	Scram	Incline no action	Communi- ation fault	Incline unconnected
Flash times	1	2	3	4	5	6	7	8

CHAPTER 4 : TROUBLESHOOTING

4.3 No Power to Console

1) SYMPTOM:

1. The power switch is in the right position, but the console will not turn on.
2. The console is damaged or the console cable is not connected properly.
3. Poor connection to the terminals on the motor control board.
4. The motor control board is damaged. The generator is damaged.

2) SOLUTION:

1. Make sure the outlet of a machine is plugged into correctly and is functional, Double check that the breaker has not tripped.
2. The correct power cord is being used. Only use the power cord included or provided by Customer Tech Support. Make sure the power cord is not pinched or damaged and is properly plugged into the outlet and the machine. check to see if the connection of adapter is well.
3. Remove the console and to check if the console wire has a good connection to the board. (UCB)
 - ⇒ You need a multimeter and switch the selector to the Ohm (Ω) position. Before you take a measurement, touch the leads together and make sure the meter reads 0, indicating there is no resistance between the leads. Touch the leads to 2 terminals of exposed circuit wires and note if the reading is zero. If yes, the wire is good. Otherwise, the wire could be broken. Please replace it.
4. Remove the console mast and check to see if the console upper cable and console lower cable are connected well. (MCB to UCB)
 - ⇒ The same testing method as step 3.
5. Remove the motor cover and check to see if all wires are connected well. (MCB)
 - ⇒ The same testing method as step 3.

4.4 No Function to Safety Key

1)SYMPTOM :

No function to the safety key.

2)SOLUTION :

1. Check if the safety key is totally inserted into the console. If not, remove and insert again.
2. Check if the safety key is oxidized or damaged. If yes, try to clean it or replace it.
3. If the safety key is not damaged, check the alignment of reed switch(safety key sensor) and wired connection to the console.

CHAPTER 4 : TROUBLESHOOTING

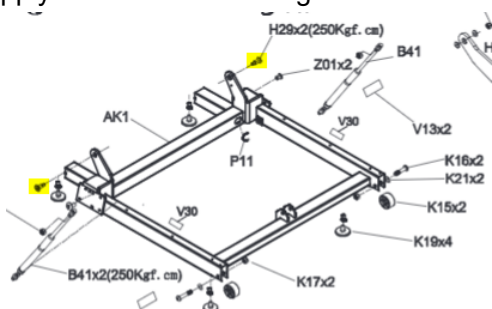
4.5 Noise Issue

1) SYMPTOM:

- a. Thumping noise twice per rotation on the new machine.
- b. Rubbing/grinding noise.
- c. The high pitched “bell-like” sound from under the motor cover.
- d. Banging or clunking sound.
- e. Slapping/thumping/squeaking sound with each footstep.
- f. Rubbing sound underneath the treadmill.
- g. Squeaking noise when raising/lowering the deck into storage positions.
- h. Squeaking/grinding noise when using elevation.
- i. Creaking/ticking noise when bouncing on the deck.

2) SOLUTION:

- a. This noise is from the roller or running belt.
 - If this is a new unit, some noise is normal as the belt has run-in time with other parts.
 - Check that the belt is centered and tensioned correctly.
 - Remove and clean the rollers if needed.
 - Replace the rollers or running belt as needed.
- b. This sound is likely a moving component.
 - Remove the motor cover and check the drive belt for alignment and make sure it is not slipping or is frayed/cut in any way. Replace the drive belt if needed.
 - Make sure the optic disk on the motor is not rubbing the speed sensor.
 - Turn the motor by hand to see if motor brushes or bearings are rubbing. Replace the motor if needed.
 - Check the front and rear rollers, replace if needed.
- c. The sound is likely due to the unit not keeping flatness.
 - Check if the machine chassis are touching the ground.
 - Move the treadmill to another flat surface.
- d. This sound is from the running deck/belt.
 - Check that the running deck is tightly attached to the frame.
 - Check the deck buffers for any damage or crumbling. Replace if needed.
- e. This sound is likely due to the air shock.
 - Lubricate or replace the air shock as needed.
- f. This sound is likely from the incline motor.
 - Check that the incline motor connection points include Teflon washers.
 - Lubricate the incline motor screw and connection points with grease.
 - Replace the incline motor.
- h. i. This sound is likely from the bolts in the elevation rack.
 - Apply some white lithium grease on the bolts that connect the elevation rack to the base frame.



CHAPTER 4 : TROUBLESHOOTING

4.6 Error Code

Error Name	Error Code	Error Symptom	LED Flash Times
No RPM feedback	00A1	No RPM feedback during a workout	2
Overcurrent protection	01A8	The motor current reaches the set upper limit, and the motor is shut down by a single time exceeding 4s	3
MOS tube breakdown protection	02A8	Turn off the motor immediately when the MOS tube shortens	4
Safety switch error	02B2	Safety switch not inserted	5
Lifting zero-point short circuit	01B5	Lifting motor action, Count more than 200, continue to detect zero point	6
Receive error	0443	MCB data receive error	7
MCB data receives timeout	0440	Lost connection with UCB	7
Incline no count	0140	When lifting, there is no change feedback of count, and the time is more than 1S	8
MCB type set error	02AB	System set MCB is not matching actual MCB	9
Temperature sensor error	024C	When the temperature sensor detects a voltage <150mV, the sensor is considered to be a short circuit. When the voltage > 4.78v is detected, the sensor is considered to be open	10
MCB MOS temperature is too high	0242	If the temperature reaches the target value of 120 degrees Celsius and lasts more than 180s, or if the target value reaches 130 degrees and lasts for 5s, the error state will be entered	11
Drop speed protection	0041	Lower than the target value of 0.5mile when actual speed is less than 2mile, lower than the target value of 1mile when actual speed is more than 5mile, lower than 30% when actual speed is more than 5mile, continuous duration of 5s	12
Flash read error	02BA	Flash read error	13
Flash write error	02B9	Flash write error	13
MCB type cannot read	02C8	Identify abnormal circuit, unable to identify the type of MCB	14

CHAPTER 4 : TROUBLESHOOTING

4.7 No Response For Machine (Console&Motor)

SOLUTION:

- A. Check if the console beeps when all keys are pressed. If no, replace the keypads.
- B. Enter a normal workout, press the key "GO".
 - When pressing the key "SPEED + / -", if the data on windows "TIME" & "DISTANCE" is changed, the console is ok. If not, replace the screen PCB.
- C. Turn off the power switch, and open the motor cover. Remove the red & black wires of the motor from the MCB, and use a multi-meter to measure the resistance of drive motor.
 - If the resistance is bigger than 10 Ω , the drive motor is defective. Replace the drive motor.
 - If the resistance is lower than 10 Ω , the drive motor is ok. Then,
 - Check the connection of the speed sensor (encoder disk group) at the MCB.
 - Remove the speed sensor from the motor and clean it, then re-test.
 - If the speed sensor is clean and has a good connection but still will not operate, replace the speed sensor.
 - Replace the MCB as the last step if the machine still does not run after taking above actions.

4.8 Incline Motor Issue

SOLUTION:

- A. Press the "INCLINE + / -" keys, the console should beep and display incline change, if not, replace the keypad.
- B. Press the "INCLINE + / -" key.
 - If can hear clicks from two relays at the MCB, the MCB is ok. Then check the connection of the incline motor at the MCB first, try to unplug and re-plug. If this does not resolve the issue, replace the incline motor.
 - If there are no clicks from these two relays, MCB is defective and replace the MCB.

CHAPTER 4 : TROUBLESHOOTING

4.9 Heart Rate Function Issue

SYMPTOM:

- A. HR grips are broken causing no heart rate.
- B. HR board or UCB is broken causing no or high heart rate.

SOLUTION:

A. With a multimeter set for DC Voltage, place one prong of the multimeter on each of the HR plates on the handlebar (Figure A). A correctly connected HR grip will have a DC Voltage reading of between 0.5 and 2.0. If this reading is correct, skip to Step b.

-If the reading is not correct, remove the screws holding the 2 halves of the HR grip together and check the connection of the HR grip wiring to the grips (Figure B). Replace the grips if any damage is seen to the plates.

-Remove the console to expose the HR board.

-Check the connection of the HR grip wiring to the Y cable attached to one side of the HR board. Use a multimeter set for ohms to verify the continuity of these wires. If the ohm reading is more than 1 (or not there at all), replace the HR grip wiring. If the ohm reading is correct, your issue is not with the HR grip / HR wire portion of the HR system.

B. Perform a continuity test on the treadmill console.

-Verify the HR board ground wire. With a multimeter set for ohms, place one prong on the HR board ground wire, and the other on the console ground screw. You should get a resistance reading of 1 or less. If you get a reading over 1 (or none at all), replace the HR board.

-Check the continuity of the wiring that goes from the HR board to the UCB. Replace this wire if needed.

-If all wiring checks out good and the unit is still having HR issues, replace the HR board.

-If the HR board does not resolve the issue, replace the UCB.



Figure A



Figure B

CHAPTER 5 : PARTS REPLACEMENT

5.1 Motor Cover

- 1) Turn off the power and disconnect the cord from the machine.
- 2) Remove 2 screws on the side. (Figure A)
- 3) Remove 2 screws on the back. (Figure B)
- 4) Remove the motor cover and Reverse steps 1-3 to install a new roller.



Figure A



Figure B

CHAPTER 5 : PARTS REPLACEMENT

5.2 Rear Roller

- 1) Remove 4 fixing screws on both sides of rear roller endcaps with a Phillips screwdriver. (Figures A)



Figure A

- 2) Remove both roller adjustment screws using an 8mm Allen Wrench (Figure B).
- 3) Remove the rear roller from the running belt (Figure C).



Figure B



Figure C

- 4) Reverse Steps 1-3 to install a new rear roller.

CHAPTER 5 : PARTS REPLACEMENT

5.3 Side Rail

- 1) Remove the motor cover as section 5.1.
- 2) Remove the rear roller end caps as section 5.2.
- 3) Remove the side rail screws on each side. (Figure A)
- 4) Reverse step 1-3 to replace side rail. (Figure B)



Figure A



Figure B

CHAPTER 5 : PARTS REPLACEMENT

5.4 Front Roller

- 1) Remove motor cover as Section 5.1.
- 2) Remove the side rail as Section 5.2
- 3) Remove the roller fixing screw. (Figure A)
- 4) Remove the drive belt from the roller. (Figure B)
- 5) Remove the front roller. (Figure C)
- 6) Reverse steps 1-5 to install a new front roller.

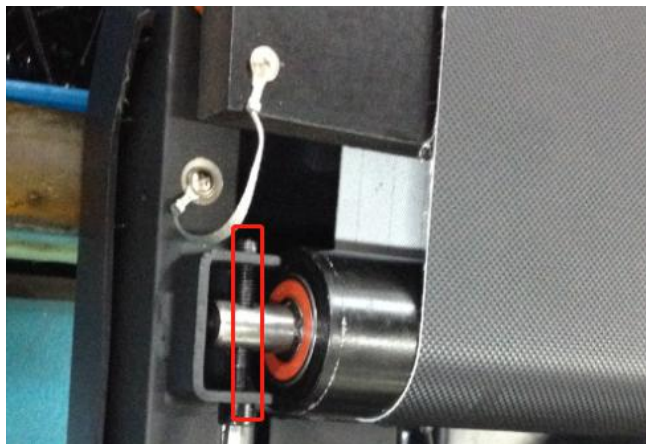


Figure A

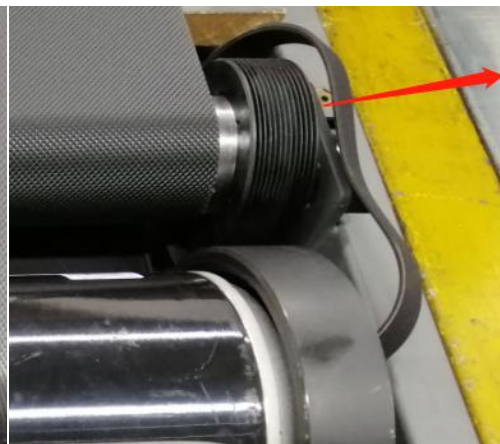


Figure B

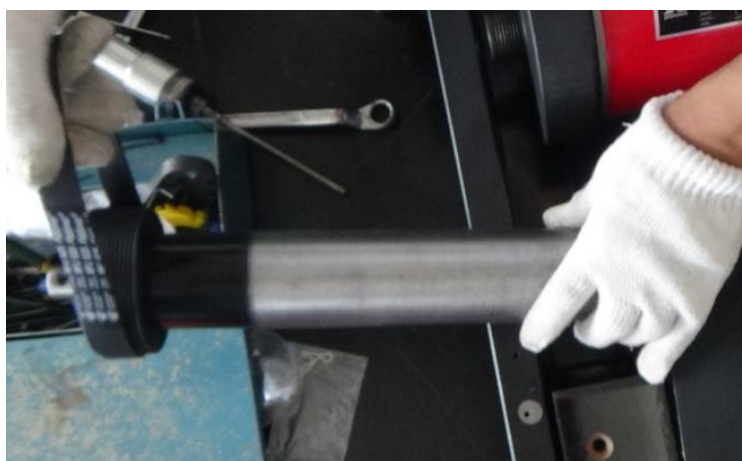


Figure C

CHAPTER 5 : PARTS REPLACEMENT

5.5 Deck

- 1) Remove the motor cover as outlined in Section 5.1.
- 2) Remove the rear rail end cap as outlined in Section 5.2.
- 3) Remove the side rails as outlined in Section 5.3.
- 4) Remove the 8 deck screws using a 5mm Allen Wrench (Figure A).
- 5) Remove the deck from the running belt and reverse Steps 1-5 to install a new deck.

NOTE1: A new deck surface must ALWAYS be matched to a new running belt.

NOTE2: To check if the new deck is well lubed with silicone in advance.

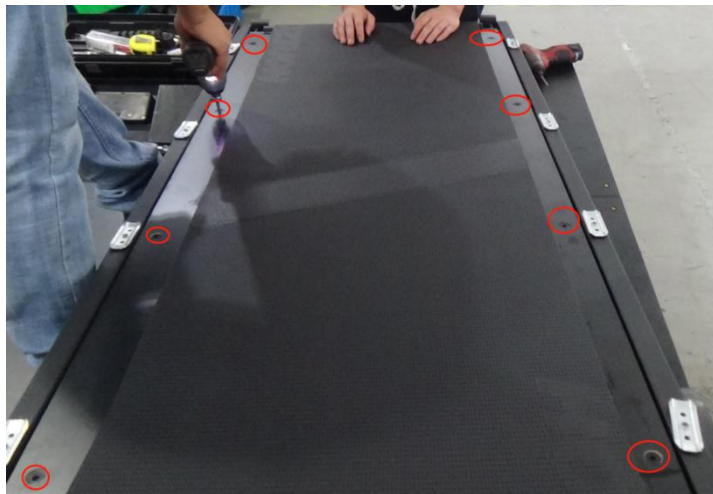


Figure A

CHAPTER 5 : PARTS REPLACEMENT

5.6 Running Belt

- 1) Remove the motor cover as outlined in Section 5.1.
- 2) Remove the rear roller as outlined in Section 5.2.
- 3) Remove the side rail as outlined in Section 5.3.
- 4) Remove the front roller as outlined in Section 5.4.
- 5) Remove the deck as outlined in Section 5.5.
- 6) Remove the running belt and reverse steps 1-5 to install a new running belt. (Figure A).

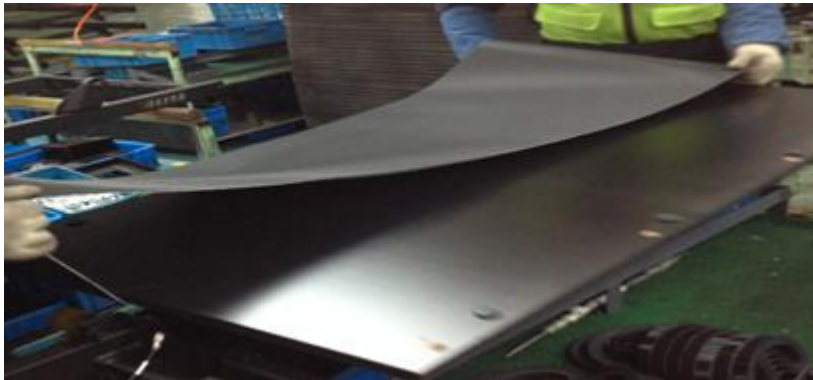


Figure A

NOTE1: A new running belt should ALWAYS be installed on a new deck surface (the deck should either be flipped or replaced).

NOTE2: To check if the new deck is well lubed with silicone in advance.

CHAPTER 5 : PARTS REPLACEMENT

5.7 Deck Elastomer

- 1) Remove the deck as outlined in Section 5.5.
- 2) Remove the deck elastomer with Allen Wrench (Figure A & B).
- 3) Reverse Steps 1-2 to install new deck elastomer.

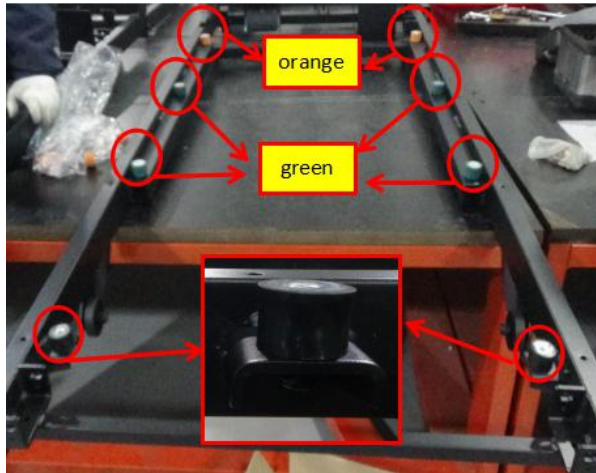


Figure A



Figure B

CHAPTER 5 : PARTS REPLACEMENT

5.8 MCB

- 1) Turn off the power and remove the power cord from the unit.
- 2) Remove the motor cover as outlined in Section 5.1.
- 3) Cut any wire ties that are secured to the MCB and frame.
- 4) Remove all the wire connections to the MCB (Figure A).

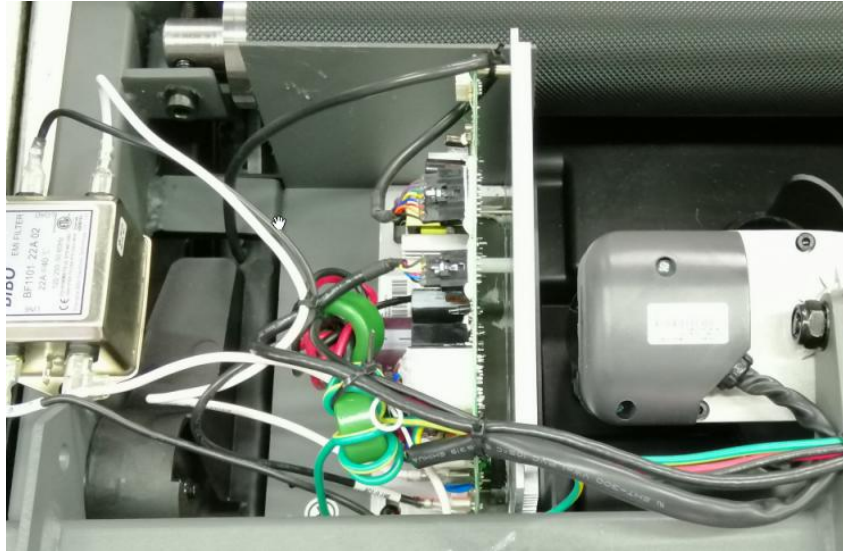


Figure A

- 5) Remove the 2 screws holding the MCB to the motor tray using a Phillips screwdriver and remove the MCB (Figure B).



Figure B

- 6) Reverse Steps 1-5 to install a new MCB.

NOTE: Replace all cable ties removed during replacement.

CHAPTER 5 : PARTS REPLACEMENT

5.9 Drive Motor

- 1) Remove the motor cover as Section 5.1.
- 2) Remove all cables connected with motor. (Figure A)
- 3) Remove the drive belt from the motor as Section 5.4.
- 4) Remove 2 fixing screws on the motor. (Figure B)
- 5) Reverse step 1-4 to install a new motor.

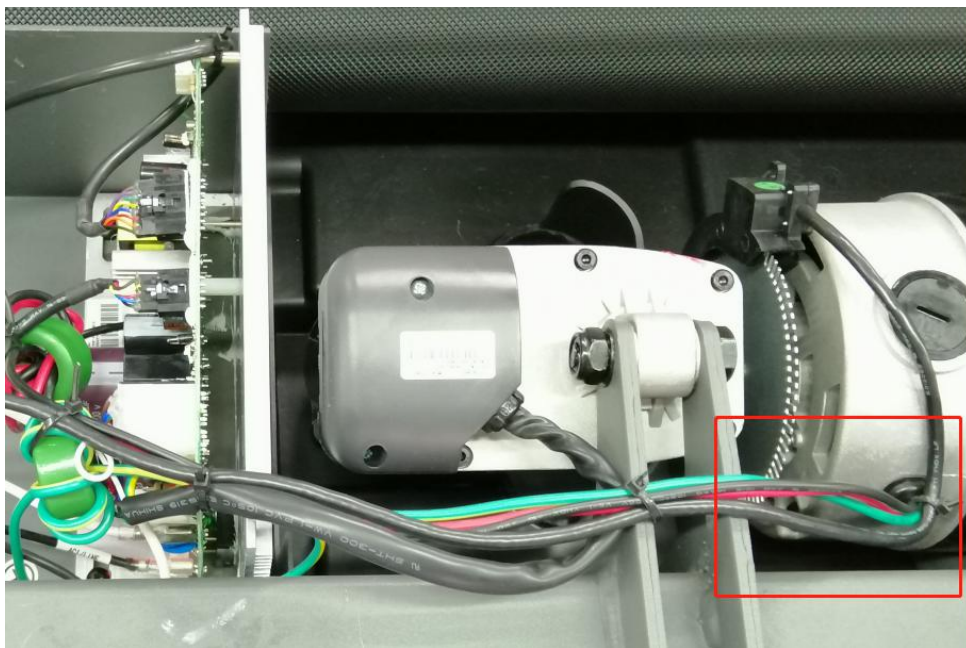


Figure A

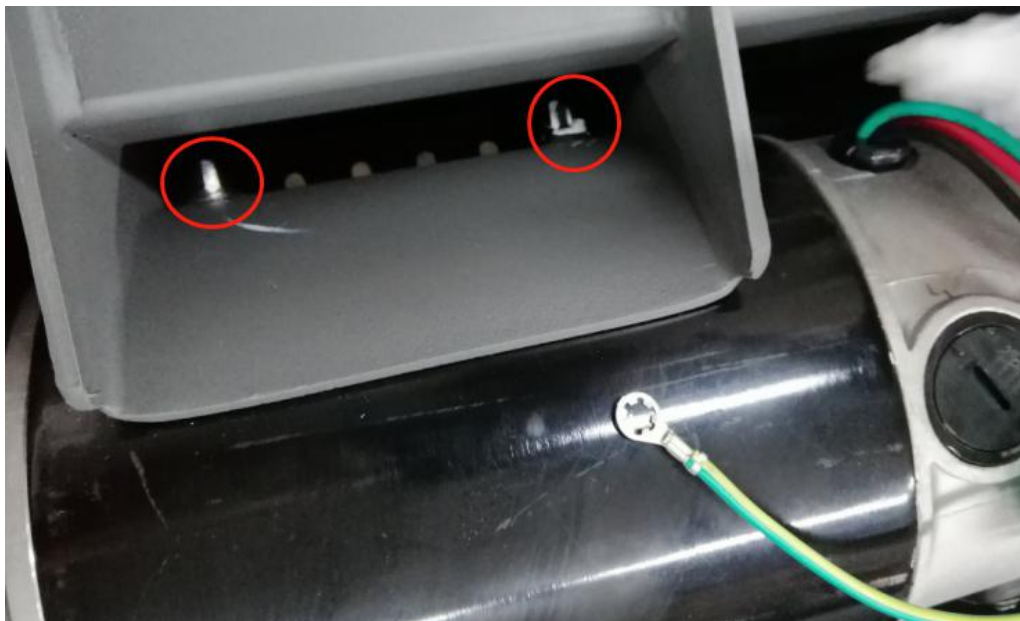


Figure B

CHAPTER 5 : PARTS REPLACEMENT

5.10 Incline Motor

- 1) Turn off the power and remove the power cord from the unit.
- 2) Remove the motor cover as outlined in Section 5.1.
- 3) Lift up the treadmill deck to max position and let the air stick hold.
- 4) Remove the bolt attaching the incline motor to the rack. (Figure A)



Figure A

- 5) Disconnect the incline motor cable from the MCB. (Figure B)
- 6) Disconnect the incline motor from the top mounting bracket. (Figure C)

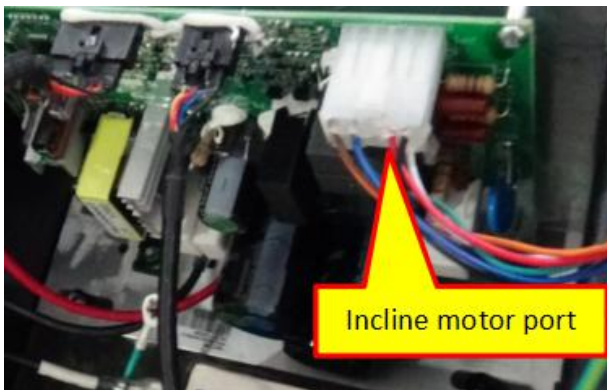


Figure B



Figure C

- 7) Lift the incline motor out of the treadmill. (Figure D)



Figure D

- 8) Reverse Steps 1-7 to install a new incline motor.

NOTE: Be sure to re-install the washers at the top and bottom connection points.

CHAPTER 5 : PARTS REPLACEMENT

5.11 Console Control Board

- 1) Remove all screws fixing the console upper part and open the front cover. (Figure A)
- 2) Remove all connected cables on the board. (Figure B)
- 3) Remove all screws fixing the board on the cover. (Figure C)
- 4) Reverse step 1-3 to replace a new console board.



Figure A

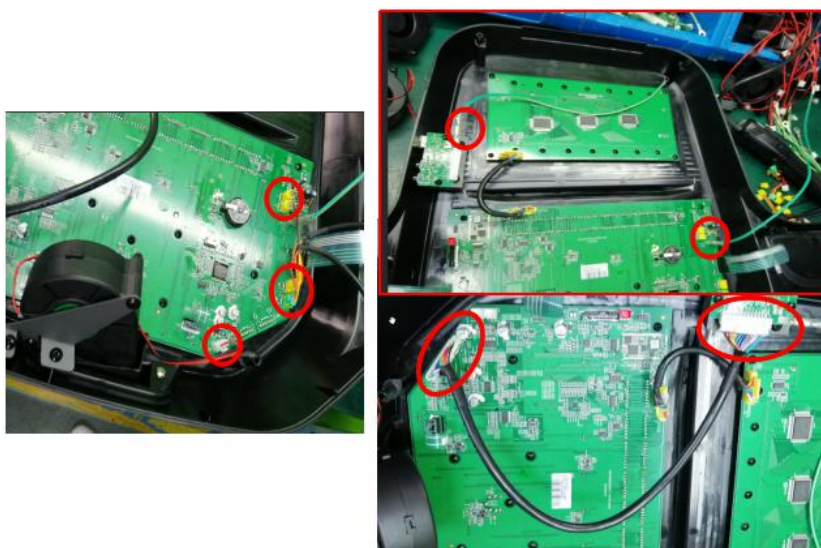


Figure B



Figure C

CHAPTER 5 : PARTS REPLACEMENT

5.12 Console Mast

- 1) Remove all the wire connected to MCB. (Figure A)
- 2) Remove 4 screws fixing the console set to the mast. (Figure B)
- 3) Remove 4 screws fixing the handrail. (Figure C)
- 4) Remove 4 screws fixing the mast. (Figure D)
- 5) Reverse step 1-4 to replace the parts above.

Note: Be careful don't damage the cable inside console mast.



Figure A

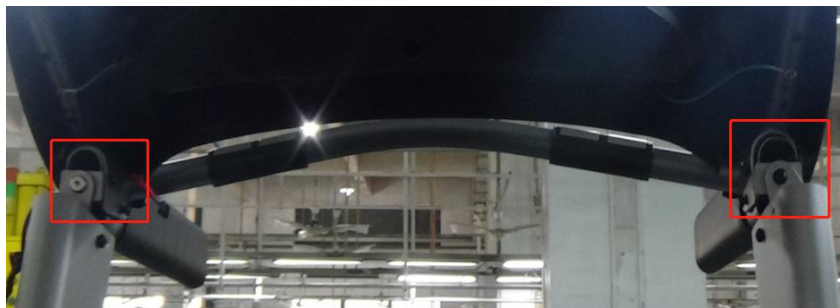


Figure B



Figure C



Figure D

CHAPTER 5 : PARTS REPLACEMENT

5.13 Console Overlay Set



- 1) Unplug the unit from the wall.



- 2) Remove the screws (circled in yellow) from the back of the console that hold the front window in place. Make sure to keep the screws.



- 3) Open the front of the console overlay.

CHAPTER 5 : PARTS REPLACEMENT

5.13 Console Overlay Set - cont'd

4) Take photos of the UCB and wire connections so that you can reference them when you are plugging the wires into the new board.



5) Disconnect all of the wires from the board.

6) Remove the old console overlay set and put the new one in place. Refer to your photos to correctly reconnect the wires.

7) Plug the unit into the wall and check for proper function.

- a. Check the Go button
- b. Check elevation up & down
- c. Verify speed up & down
- d. Make sure heart rate works
- e. Check the Stop button
- f. Remove the safety key – the display should show that safety key is removed

8) If the unit is functioning properly, reinstall the screws in the back of the console to secure the front window.