



IT ALL STARTS WITH A VISION

**T60 TREADMILL  
SERVICE MANUAL**

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## 1.1 SERIAL NUMBER LOCATION



## CHAPTER 2: IMPORTANT SAFETY INSTRUCTIONS

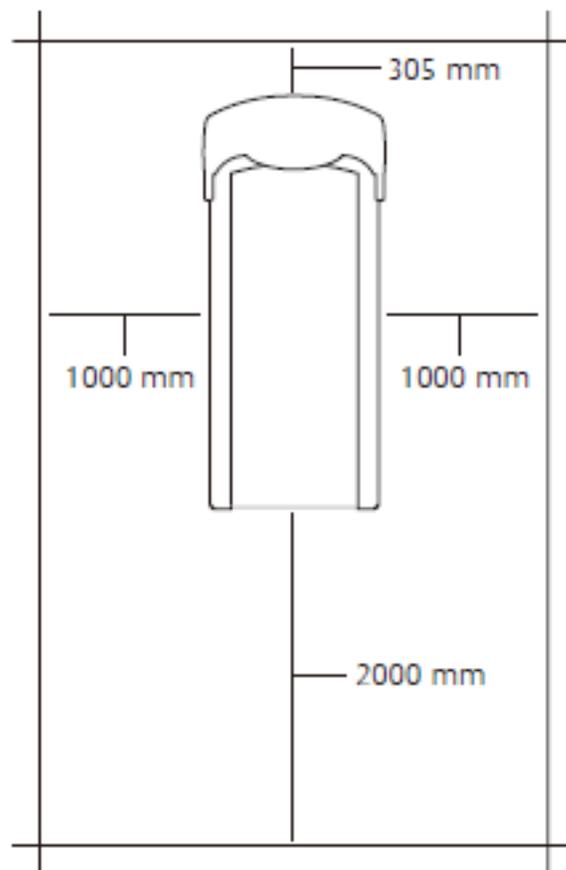
### 2.1 BEFORE GETTING STARTED

The Vision Fitness T60 Treadmill is intended for commercial use. To ensure your safety and protect the equipment, read all instructions before operating the Treadmill.

#### CHOOSING A SITE

The site should be well lit and well ventilated. Locate the Vision Fitness T60 Treadmill on a structurally solid and flat surface. Allow a distance of 305 mm (12") between the treadmill and other units on either side or a wall. Allow a distance of 2000 mm (6') from the rear of the treadmill to any other object or surface. If the site has a heavy plush carpet, to protect the carpeting and machinery, you should place a rigid plastic base under the unit.

Please do not place the Vision Fitness T60 Treadmill in an area of high humidity, such as the vicinity of a steam room, indoor pool, or sauna. Exposure to intensive water vapor or chlorine could adversely affect the electronics, as well as other parts of the machine.



### 2.2 READ AND SAVE THESE INSTRUCTIONS

To ensure proper use of the Vision Fitness T60 Treadmill, make sure that all users read this manual. Remind the users that before undertaking any fitness program, they should obtain complete physical examinations from their physicians. If, at any time while exercising, the user experiences dizziness, pain, or shortness of breath, nausea or feels faint, he or she must stop immediately.

\* Never operate the treadmill if it has a damaged power cord or electrical plug. If it is not working properly, or if it has been damaged or immersed in water. Return the treadmill to an authorized Vision dealer for examination and repair.

\* Keep the power cord away from heated surfaces. Do not pull the equipment by the power cord or use the cord as a handle. Never place the power cord under carpeting or place any object on top of the power cord.

\* Only use the power cord provided with your treadmill. If the power cord is damaged, it must be replaced by the manufacturer, an authorized agent, or a similarly qualified person to avoid hazard.

\* To disconnect, turn the switch to the off position, then remove the plug from the outlet.

\* Use this treadmill for its intended purpose as described in this manual. Do not use attachments that have not been recommended by the manufacturer.

\* Never drop or insert any object into any opening. If an item cannot be reached, contact a Vision Fitness authorized dealer for assistance.

\* Do not reach into or underneath the unit, or tip it on its side during operation. Keep hands away from moving parts.

\* Do not remove the treadmill motor or roller covers. Service should be performed only by an authorized service technician.

\* Do not use any equipment that is damaged or has worn or broken parts. Use only replacement parts provided by Vision Fitness or authorized dealers.

\* Do not use the treadmill outdoors, near swimming pools, or other areas of high humidity.

\* Do not operate where aerosol (spray) products are being used or when oxygen is being administered.

\* Be sure the emergency stop pull cord is clipped to the user and in a proper placed position on the user before beginning any workout..

\* Use the stationary handrails when mounting or dismounting the treadmill. Place your feet firmly on the right and left side platforms before the running belt begins moving (prior to a workout). Step onto the running belt when the speed is at or below 1 MPH.

\* Never mount or dismount the treadmill while the running belt is moving.

\* Do not wear clothing that might catch on any moving parts of this Treadmill.

\* Never walk or jog backwards on the treadmill.

Do not use this product in bare feet. Do not wear shoes with heels, leather soles, cleats, or spikes while exercising.

\* Do not turn the belt by hand.

\* Close supervision is necessary when used near children, invalids, or disabled people.

\* When the Treadmill is in use, young children and pets should be kept at least 3 meters / 10 feet away.

**CAUTION!** If you experience chest pains, nausea, dizziness, or shortness of breath, stop exercising immediately and consult your physician before continuing.

**CAUTION!** Any changes or modifications to this equipment could void the product warranty.

## 2.3 ELECTRICAL REQUIREMENTS

The Vision Fitness T60 Treadmill requires a dedicated line sized according to the electrical configurations listed in the chart below. It is particularly important that no sensitive electrical equipment, such as a computer or a TV shares the same circuit.

| Supply Voltage (VAC) | Frequency (Hz) | Rated Current (Amps) |
|----------------------|----------------|----------------------|
| 110                  | 50 / 60 Hz     | 15A                  |
| 220                  | 50 / 60 Hz     | 8A                   |

## GROUNDING INSTRUCTIONS:

The Vision Fitness T60 Treadmill must be properly grounded. If the product malfunctions or breaks down, proper grounding provides a path of least resistance for the electric current to reduce the risk of electrical shock. This product is equipped with an electrical cord, which includes an equipment grounding conductor and a grounding plug. The plug must be inserted into an outlet that has been properly installed and grounded in accordance with all local codes and ordinances.

**DANGER:** Improper connection of the equipment grounding conductor can result in a risk of electrical shock. Check with a qualified electrician or service provider if you are in doubt as to whether or not the product is properly grounded. DO NOT modify the plug provided with the product. If it will not fit an electrical outlet, have a proper outlet installed by a qualified electrician. Any modification to the electrical plug will result in a voided warranty.

### 3.1 MAINTENANCE AND CLEANING TIPS

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The Vision Fitness T60 Treadmill is built for use in the light commercial environment (up to 8 hours a day, 7 days a week). However, as a club manager or owner, you are responsible for cleaning and maintaining the unit's integrity. If you fail to maintain the treadmill as described below, it could affect or void the Johnson Limited Warranty.

**DANGER:** To reduce the risk of electrical shock, always unplug the treadmill from the power source before cleaning it or performing any maintenance tasks.

**NOTE:** Safety of the equipment can be maintained only if the equipment is examined regularly for damage or wear. Keep the equipment out of use until the defective parts are repaired or replaced. Pay special attention to parts that are subject to wear.

### RECOMMENDED CLEANING TIPS:

- 1) Use a soft, clean cotton cloth. DO NOT use paper towels to clean the surfaces on the treadmill. DO NOT use ammonia or acid based cleaners. DO NOT use abrasive cleaners. DO NOT apply cleaners directly to equipment surfaces.
- 2) Wipe the console and side rails after each use.
- 3) Brush away any wax deposits from the deck and belt area. This is a common occurrence until the wax is worked into the belt material.
- 4) Be sure to remove any obstructions from the path of the elevation wheels including power cords.
- 5) Monthly, unplug the treadmill and remove the motor cover. Check for debris and clean with a dry cloth or small vacuum nozzle. DO NOT plug the unit in until the motor cover has been re-installed.

### 3.2 CENTERING AND TENSIONING THE BELT

#### CENTERING THE BELT:

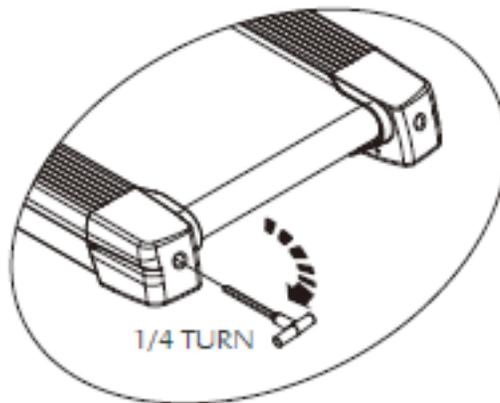
The Vision Fitness T60 is built with a crowned roller to ensure proper tracking of the belt in the center of the deck. When you run or walk, you may push off harder with one foot than the other. This uneven deflection can cause the belt to move off center. Occasionally, the belt may need further adjustment to keep it centered. To center the belt, use the enclosed 8mm Allen wrench to adjust the rear roller position.

**CAUTION:** Please follow the belt centering tips below before you begin.

- 1) Do not wear loose clothing or loose jewelry while making adjustments.
- 2) Never turn the bolts more than 1/4 turn at a time.
- 3) Tighten one side and loosen the other side to prevent over-tightening or loosening of the belt. This can significantly shorten the life time of the belt.
- 4) Press QUICK START and speed up to 4 MPH during the belt adjustment.
- 5) After the belt adjustment, let the treadmill run for 5 minutes to test. If necessary repeat the procedure until the belt is centered.

If the belt moves to the left: Turn the left tension bolt a 1/4 turn clockwise and then turn the right tension bolt clockwise to start the belt tracking back to the center of the roller.

If the belt moves to the right: Turn the right tension bolt a 1/4 turn clockwise and then turn the left tension bolt clockwise to start the belt tracking back to the center of the roller.



Repeat these adjustments until the belt appears centered. Allow the belt to continue running for several minutes to be sure that the tracking is stabilized. **NOTE:** DO NOT exceed one full turn of the adjusting screws in either direction. If after one full turn, the belt does not track properly, contact your Johnson Dealer.

#### TENSIONING THE BELT:

Check the tension of the belt. The belt should be very snug. When a person walks or runs on the belt, it should not hesitate or slip. If this occurs, tighten the belt by turning both tension bolts a 1/4 turn clockwise. Repeat if necessary, but never turn the tension bolts more than 1/4 turn at a time.

**CAUTION:** Over-tightening of the belt will severely shorten the life of the belt and cause damage to the other components.

### 3.3 AUTO CALIBRATION PROCEDURE

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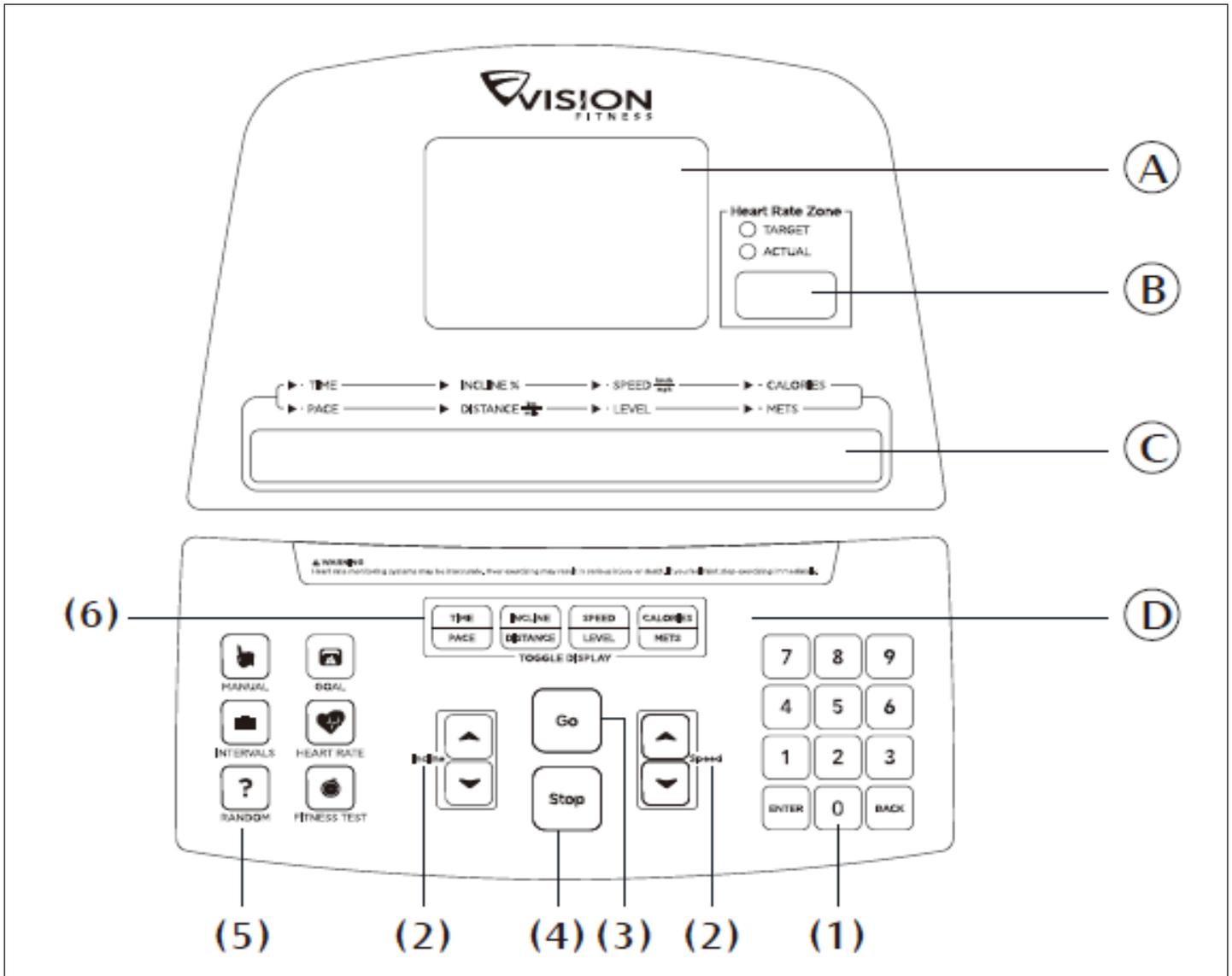
#### **AUTO CALIBRATION PROCEDURE:**

The Vision Fitness T60 should be auto calibrated after assembly, the replacement of any electronic component, or the replacement of the incline motor. Follow the procedure below to run auto calibration. If the auto calibration fails, contact Vision Fitness Customer Technical Support.

- 1) Hold the INCLINE DOWN and SPEED DOWN keys simultaneously for 3-5 seconds. The instruction center on the console should display Manager Mode.
- 2) Scroll through the list of Manager Mode settings using the SPEED UP or DOWN keys until P16 Auto Check shows in the instructions center on the console.
- 3) Press the Select key to begin an Auto Calibration. This will test the incline range of the treadmill.
- 4) Once Auto Calibration is complete (the instruction center should say passed or failed), press and hold the RESET key to return to normal operation.

If the auto calibration fails, contact Vision Fitness Customer Technical Support.

## 4.1 CONSOLE DESCRIPTION



### CONSOLE DISPLAY

A. Workout Profile Window: During a workout, intervals, hills, and valleys appear in this window as rows of lights stacking in columns. The number of lit rows within a column corresponds to an incline percentage.

B. Heart Rate Center: This window displays your actual and target heart rate during the workout. The console displays a heart rate within 15 to 20 seconds of contact with the sensors or the use of a heart rate chest strap. In the Target Heart Rate Program, the inputted target heart rate will display in the window every 60 seconds.

C. Instruction Center: This window displays step-by-step instructions for setting up a workout. During a workout, it displays Time, Pace, Incline, Distance, Speed, Level, Calories, and METs.

D. Control Keypad: The control keypad allows the user to set up programs and control workouts.

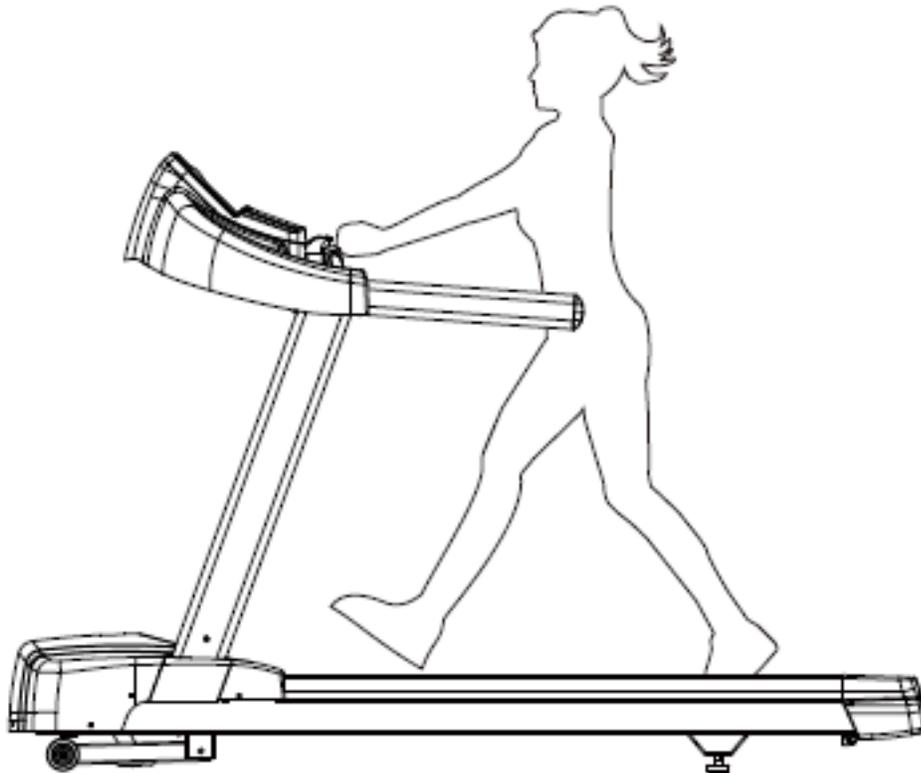
- 1) Number Keys - Press the numbers to input exercise time, weight, level, age, heart rate, speed, and incline.  
Select / Enter Keys - Press this key to confirm an entry of a number.  
Clear Key - Use this key to clear data not yet entered during the workout setup.
- 2) Speed & Incline - Use the arrow keys to adjust speed or incline.
- 3) Go - Press go to begin your workout immediately without having to select a workout program.
- 4) Stop - Press this key once to enter pause mode. Hold it for 3 seconds to reset the treadmill and restart the programming sequence.
- 5) Program Keys - Press the key to select one of the workouts. The program key with a symbol of plus represents this key including additional workout options. Press this key repeatedly for similar workout options.
- 6) Readout Switch Keys - Press one of these four keys to change your desired readout.

### 4.2 WORKOUT TIPS

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#### WORKOUT TIPS

- \* Vision Fitness strongly recommends seeing a physician for a complete medical exam before undertaking an exercise program. If at any time while exercising, the user experiences faintness, dizziness, pain, or shortness of breath, he or she must stop immediately.
- \* Without anyone standing on the treadmill, plug the power cord into a dedicated electrical outlet.
- \* The On / Off switch for the treadmill is located next to the power supply plug in. Turn the switch to the on position to activate the treadmill.
- \* To mount or dismount the treadmill, grasp the stationary side handrails and place your feet firmly on the right and left side platforms before the running belt begins moving. Prior to the workout, please always attach the security clip to your clothing.
- \* When you are comfortable situated onto the running belt, the computerized display console on the treadmill instructs you how to operate the unit.
- \* The best position to walk on the treadmill is to have your arms bent lightly and your hands grasping the HR handlebar (See below illustration). At a running speed, your feet should be in a position so that when you swing your arms on a natural swing, they do not touch the front handrail.
- \* Hold onto the handrail with one hand while you increase speed with the other. Once you are comfortable with the walking or running speed, you can remove your hands from the rail.
- \* Do not attempt to grasp the HR sensors at speeds above 4.5 MPH (7.2 KPH). For these speeds, the use of a HR strap is recommended.
- \* It is highly recommended that you always incorporate the warm up and cool down period into your workout. Warm up brings the heart rate into the lower end of the target zone and increases respiration and blood flow to working muscles. Cool down takes time for a user's heart rate to return to a resting state after rigorous exercise and reduces the amount of lactic acid in muscle tissue.



# CHAPTER 4: CONSOLE OVERLAY AND WORKOUT DESCRIPTION

## 4.3 WORKOUT OVERVIEW

### WORKOUT OVERVIEW

| PROGRAM      |               | DESCRIPTION  | DEFAULT TIME | PROMPT INPUT  | PROGRAM CONTROL    |
|--------------|---------------|--|--------------|---|--------------------|
| QUICK START  |               | Quick Start is the fastest way to begin exercising and bypasses the setup prompts. After pressing the Quick Start key, a constant level workout begins, and the speed and incline do not change automatically.   | N/A          | N/A   | N/A                |
| MANUAL       |               | Manual is a constant effort workout in which the user can change incline or speed at any time.   | 20 Min       | Time, Weight  | N/A                |
| INTERVAL     |               | Intervals is periods of intense aerobic exercise separated by periods of lower intensity exercise. At any point during the workout, the user can change the settings of the current speed.   | 20 Min       | Level, Time, Weight   | Elevation          |
| GOAL+        | TIME GOAL     | This workout sets duration as the workout goal. Once the duration objective is met, the workout goes into a cool down phase.   | 20 Min       | Time, Start, Incline, Start Speed, Weight                                   | N/A                |
|              | DISTANCE GOAL | This workout is designed to build endurance in a certain distance. Once the objective is met, the workout automatically goes into a cool down phase, and ends afterward.   | N/A          | Distance, Start Incline, Start Speed, Weight                                | N/A                |
|              | CALORIES GOAL | This workout is designed to burn a certain number of calories in the selected time duration. Once the objective is met, the workout automatically goes into a cool down phase and ends afterwards  | N/A          | Calories, Start Incline, Start Speed, Weight                                | N/A                |
| RANDOM       |               | Random crates a random terrain patter of hills and valleys that varies with each workout.  | 20 Min       | Time, Weight  | Elevation          |
| HEART RATE+  | TARGET HR     | Target HR is a higher intensity workout for more fit users emphasizing cardiovascular benefits. The user must wear a heart rate chest strap, or keeps hands on the contact heart rate grips continuously. The program adjusts the intensity level based on the actual heart rate to maintain the rate at 80 percent of theoretical maximum.  | 20 Min       | Age, Heart Rate, HR Control, Max Speed or Max Incline, Time, Weight         | Speed or Elevation |
|              | WEIGHT LOSS   | Weight loss is a low intensity workout for burning the body's fat reserves. The user must wear or a heart rate strap or keep hands on the contact heart rate grips continuously. The program adjusts the intensity level based on the actual heart rate to maintain a rate of 65 percent of the theoretical maximum. Also uses Body Mass Index (BMI) to measure your body composition.   | 20 Min       | Age, Heart Rate, HR Control, Max Speed or Max Incline, Time, Weight, Height | Speed or Elevation |
| FITNESS TEST |               | Vision Treadmills offer the Gerkin Fitness Test. The Gerkin firefighter protocol was developed by Dr. Richard Gerkin of the Phoenix (Arizona) Fire Department. It is a sub-maximal graded treadmill evaluation used by many fire departments across the US to assess the physical condition of the firefighters. The test requires constant monitoring of the user's heart rate so the use of a telemetric chest strap is highly encouraged. | N/A          | N/A   | N/A                |

## 5.1 USING MANAGER MODE

The Manager Mode allows the owner to customize the treadmill for the club.

- 1) To enter Manager Mode, press and hold down the INCLINE DOWN and SPEED DOWN keys at the same time for 3-5 seconds (Figure A).
- 2) The display will read Manager Menu.
- 3) To scroll through the list of options in Manager Mode, use the SPEED UP and DOWN keys. Each of the custom settings will show on the display.
- 4) To select a custom setting, press the ENTER key when the desired setting is shown.
- 5) To change the value of the setting, use the SPEED UP AND DOWN keys.
- 6) To confirm and save the value of the setting, press the GO key. To exit without saving, press and hold the STOP key.
- 7) To exit the Manager Mode and return to normal operation, press and hold the STOP key for 3-5 seconds.



FIGURE A

# CHAPTER 5: MANAGER MODE

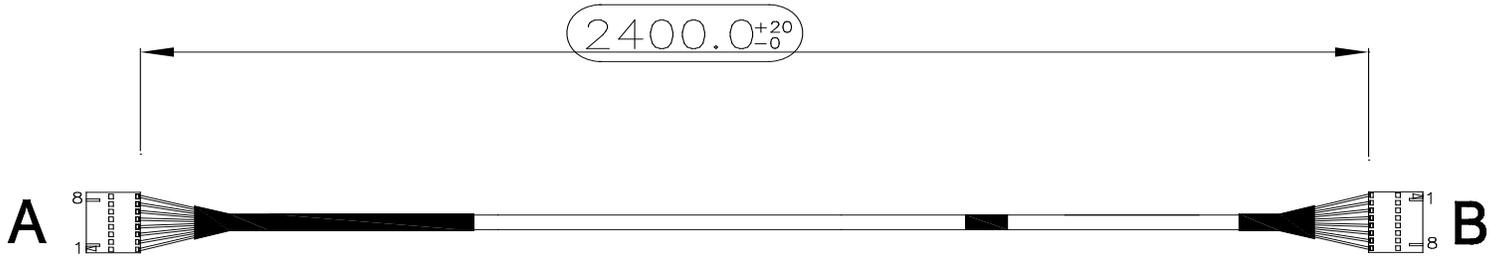
## 5.1 USING MANAGER MODE - CONTINUED

|       | CUSTOM SETTINGS                 | DEFAULT               | MINIMUM               | MAXIMUM               | DESCRIPTION  |
|-------|---------------------------------|-----------------------|-----------------------|-----------------------|--|
| P0    | MAX TIME                        | 99                    | 10                    | 99                    | This option enables fitness club managers to set the program max workout duration limits during peak and non-peak hours of the club traffic. Active variable displayed in the Time display after change. |
| P1    | DEFAULT TIME                    | 20                    | 10                    | 99                    | This option controls the default program time.   |
| P2    | DEFAULT LEVEL                   | 1                     | 1                     | 10                    | This option controls the default program level.  |
| P3    | DEFAULT WEIGHT                  | 68 KG / 150 LBS       | 34 KG / 75 LBS        | 159 KG / 350 LBS      | This option controls the default weight used in the calorie calculations. Sets to default unit change (KG or LB). Displayed in native units.   |
| P4    | DEFAULT AGE                     | 30                    | 10                    | 99                    | Default age used for all programs.   |
| P5    | MAX SPEED                       | 20 KPH / 12 MPH       | 6.4 KPH / 4 MPH       | 20 KPH / 12 MPH       | Controls the maximum speed for all programs. Displayed in native units (miles or km per hour. Reverts to default value on unit change.   |
| P6    | MAX INCLINE                     | 15                    | 4                     | 15                    | This option changes the max incline grade to 4%, 8%, 12%, or 15%.  |
| P7    | ACCUMULATED DISTANCE            | N/A                   | N/A                   | N/A                   | Shows the total distance on the treadmill in miles or kilometers.  |
| P8    | ACCUMULATED TIME                | N/A                   | N/A                   | N/A                   | Shows the total time on the treadmill in hours.  |
| P9    | START SPEED                     | 0.8 KPH / 0.5 MPH     | 0.8 KPH / 0.5 MPH     | 3 KPH / 1.8 MPH       | Controls the start speed for all programs (max speed not affected). Displayed in native units (miles or kilometers per hour). Reverts to default value on unit change.                                   |
| P10   | PAUSE TIME                      | 60 SEC                | 30 SEC                | 180 SEC               | This is the maximum time during which a workout can remain in pause mode.  |
| P11   | LANGUAGE                        | ENGLISH               |                       |                       | Sets the language for the console. Select between English, French, Italian, Spanish, and Portuguese.   |
| P12   | UCB SOFTWARE VERSION            | N/A                   | N/A                   | N/A                   | Software Version is not editable, for display only.  |
| P13   | MCB SOFTWARE VERSION            | N/A                   | N/A                   | N/A                   | Software Version is not editable, for display only.  |
| P14   | UNITS                           | METRIC                | METRIC                | STANDARD              | The measurement unit type used for weight, distance, and speed.  |
| P15   | MAINTENANCE REMINDER            | ON                    | N/A                   | N/A                   | This option enables fitness club managers to set the maintenance reminder as On / Off.   |
| P15-1 | MAINTENANCE REMINDER - DISTANCE | 2500 MILES / 4000 KMS | 2500 MILES / 4000 KMS | 5000 MILES / 8000 KMS | When the treadmill's accumulated distance reaches a certain distance, a maintenance reminder will display in the message center meaning maintenance is needed.   |
| P16   | AUTO CHECK                      | N/A                   | N/A                   | N/A                   | This function is to calibrate the treadmill's incline after the completion of the installation.  |
| P17   | ERROR LOG                       | N/A                   | N/A                   | N/A                   | Error log is not editable, for display only. Holding the INCLINE UP and SPEED UP keys simultaneously for 3-5 seconds to clear the error log.   |
| P18   | RESET ALL                       | N/A                   | N/A                   | N/A                   | The function would clear all custom settings had stored on the unit as a default value. Holding the INCLINE UP and SPEED UP keys simultaneously to clear all custom settings as a default value.         |
| P19   | MANUFACTURING TEST              | N/A                   | N/A                   | N/A                   | The function is for manufacturer use.  |



## 6.1 ELECTRICAL DIAGRAMS

### P23 - Digital Communication Wire



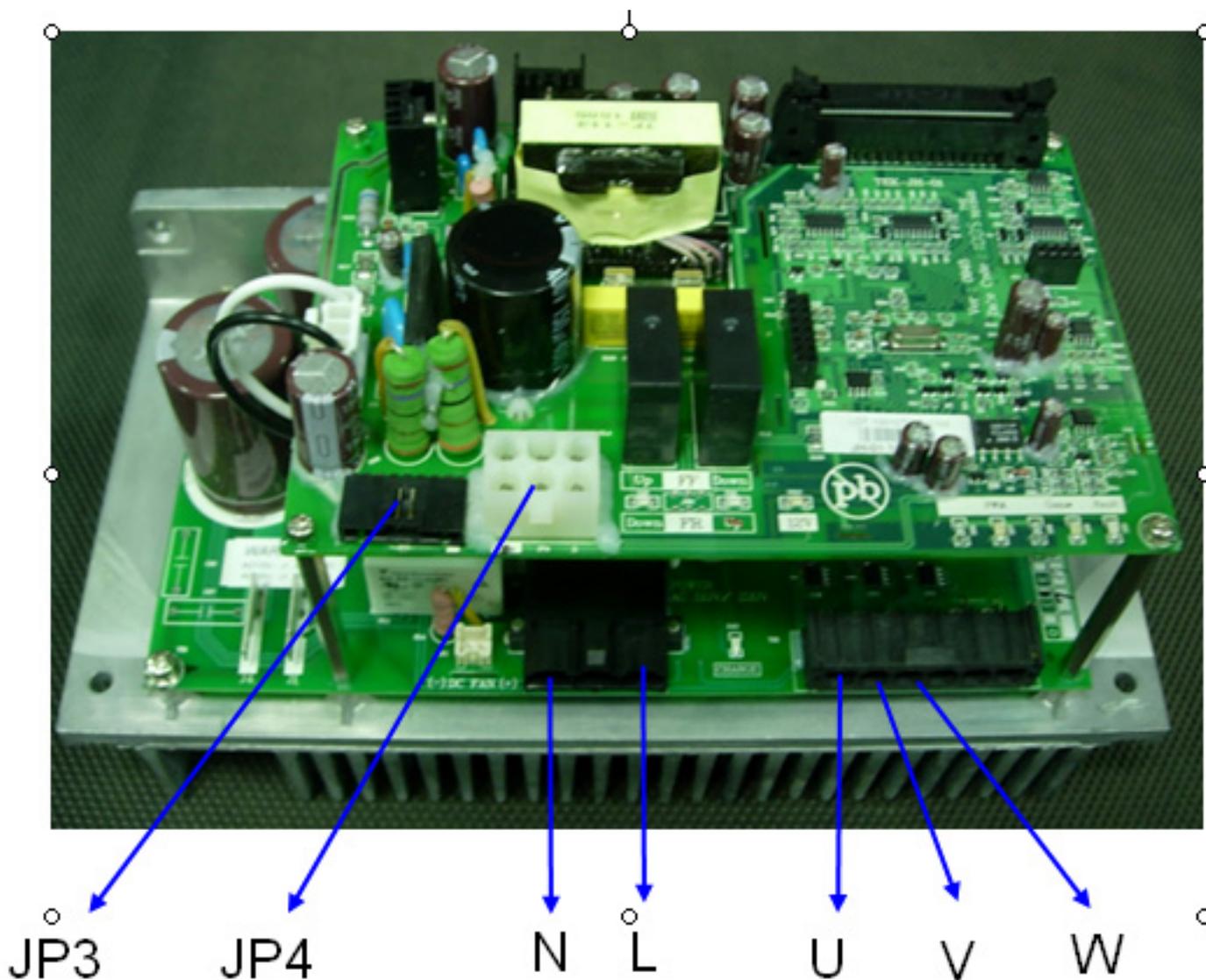
connect to MCB

| A.HOLE | B.HOLE | FUNCTION    |
|--------|--------|-------------|
| 1      | 1      | VDD         |
| 2      | 2      | VDD         |
| 3      | 3      | A           |
| 4      | 4      | SAFE KEY NC |
| 5      | 5      | SAFE KEY    |
| 6      | 6      | B           |
| 7      | 7      | GND         |
| 8      | 8      | GND         |

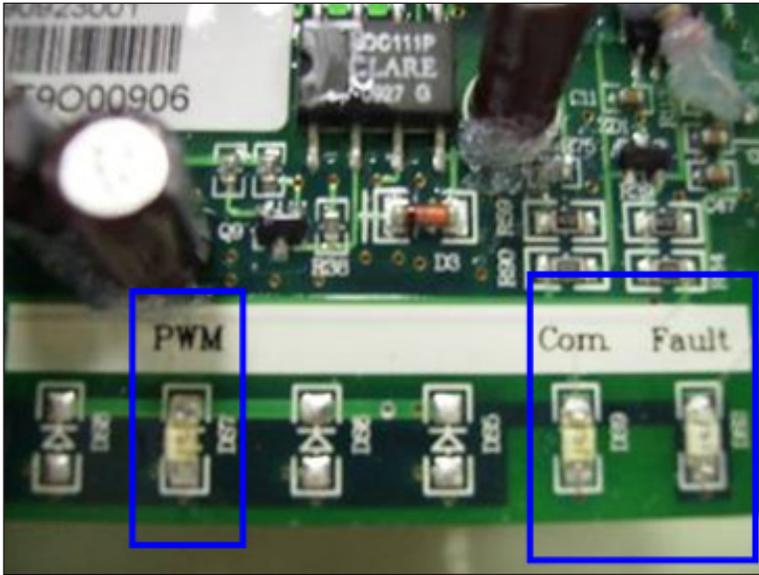
connect to console

### MCB WIRING INSTRUCTIONS

- W - Motor Wire (black)
- V - Motor Wire (white)
- U - Motor Wire (red)
- L - Power Input (black)
- N - Power Input (white)
- JP3 - Console Cable
- JP4 - Elevation Motor Cable



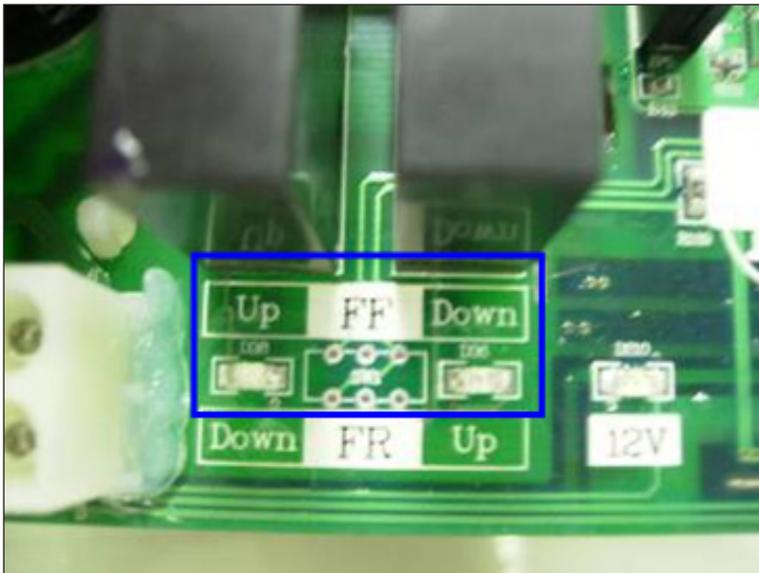
## 6.3 MCB LED PLACEMENT AND DEFINITIONS



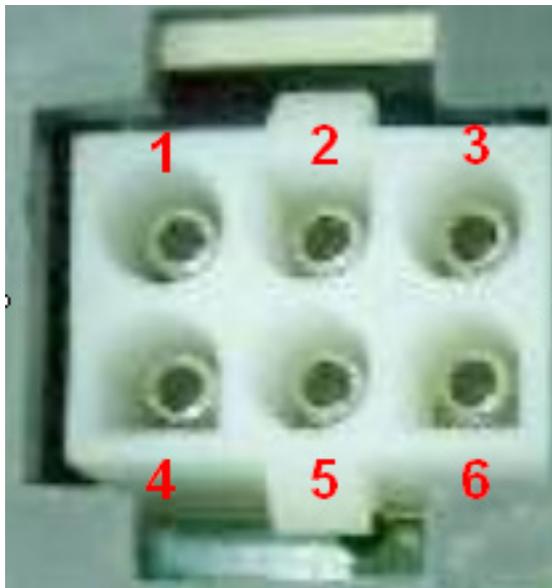
**PWM** - Console PWM signal light (when the motor is running, the light should flash).

**COM** - Digital communication light.

**FAULT** - The machine has stopped due to any C class error.



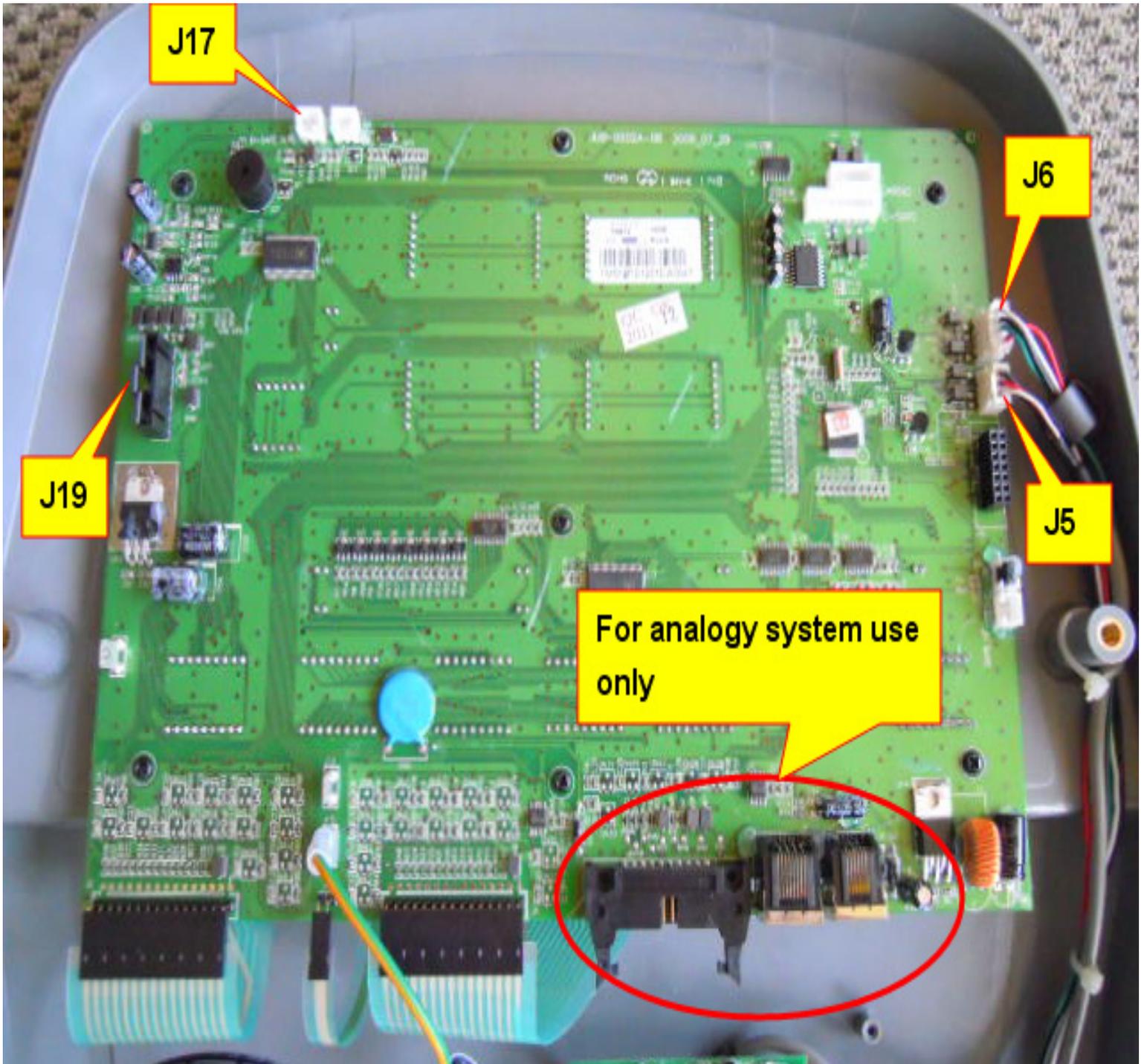
**UP / DOWN (FF)** - Incline motor status light.



| Pin | Name              | Definition                        |
|-----|-------------------|-----------------------------------|
| 1   | +VDC              | Incline place signal test power.  |
| 2   | Position          | Incline place signal.             |
| 3   | Ground / E Driver | Incline place signal test ground. |
| 4   | Up Driver         | Incline motor does move to up.    |
| 5   | Down Driver       | Incline motor does move to down.  |
| 6   | Common            | Incline motor does turn on power. |

### UCB WIRING INSTRUCTIONS

- J5 - Hand Pulse Receiver
- J6 - Built In Heart Rate Receiver
- J17 - Emergency Stop Key
- J19 - Digital Communication Wire Port



## CHAPTER 6: TROUBLESHOOTING

### 6.5 ERROR MESSAGES ON THE CONSOLE

| <b>Class Level</b> | <b>Error Code</b> | <b>Description</b>  | <b>Conditioned</b>   | <b>Solution</b>   |
|--------------------|-------------------|---|--|---|
| B                  | 0140              | Incline motor operation fail.   | When the elevation is supposed to move, it does not. When the error happens, the elevation will be locked. The command initialize is needed to unlock. | <ol style="list-style-type: none"> <li>1. Check connection of the elevation motor.</li> <li>2. MCB LED check.</li> <li>3. Replace the incline motor.</li> </ol>                                 |
| C                  | 01A0              | Incline motor disconnection.  | When the elevation position cable is not connected.  | <ol style="list-style-type: none"> <li>1. Check connection of the elevation motor.</li> <li>2. MCB LED check.</li> <li>3. Replace the incline motor.</li> </ol>                                 |
| C                  | 01A4              | Main motor U phase disconnection.                                     | Main motor U phase wire disconnected.  | <ol style="list-style-type: none"> <li>1. Check the connection of the motor.</li> <li>2. Replace the motor.</li> <li>3. Replace the MCB.</li> </ol>   |
| C                  | 01A5              | Main motor V phase disconnection.                                     | Main motor V phase wire disconnected.  | <ol style="list-style-type: none"> <li>1. Check the connection of the motor.</li> <li>2. Replace the motor.</li> <li>3. Replace the MCB.</li> </ol>   |
| C                  | 01A6              | Main motor W phase disconnection.                                     | Main motor W phase wire disconnected.  | <ol style="list-style-type: none"> <li>1. Check the connection of the motor.</li> <li>2. Replace the motor.</li> <li>3. Replace the MCB.</li> </ol>   |
| C                  | 01A8              | Main motor over current.  | Main motor over current (7 Amps)   | <ol style="list-style-type: none"> <li>1. Check the connection of the motor.</li> <li>2. Check the condition of the deck / belt.</li> <li>3. Do an amp check.</li> </ol>                        |
| C                  | 01AB              | Inverter error.   | Internal error of the inverter.  | <ol style="list-style-type: none"> <li>1. Check the MCB errors.</li> <li>2. Replace the MCB.</li> </ol>   |
| C                  | 01AD              | Inner electron over temperature: motor over loading.                  | When it thinks the user is over 130 KG (350 lbs) making the motor overload.  | Check the condition of the deck / belt, replace as needed.  |
| C                  | 02A0              | Main motor fail.  | The belt does not move when it is supposed to move.  | <ol style="list-style-type: none"> <li>1. Check the power input connections.</li> <li>2. Do a resistance check on the motor, replace if needed.</li> <li>3. MCB replacement.</li> </ol>         |
| C                  | 02A1              | Over AC power input voltage.  | Power input voltage over range.  | Check the power input connections.  |
| C                  | 02A2              | Over / low DC bus voltage.  | Power input voltage over range.  | Check the power input connections.  |
| C                  | 02A8              | Inverter circuit of motor driver failed.                              | Motor resistance is closed.  | Do a resistance check on the motor, replace if needed.  |
| C                  | 02AD              | MCB over temperature.   | MCB over temperature.  | <ol style="list-style-type: none"> <li>1. Check the MCB temperature.</li> <li>2. Check the cooling fan for function.</li> <li>3. Replace the MCB.</li> </ol>                                    |
| C                  | 02B5              | Inverter senses the normal rated current is over 150% for 60 seconds. | Inverter senses the normal rated current is over 10.5 Amps for at least 60 seconds.  | Check the connection of the motor.  |
| C                  | 02B6              | Speed up is over current.   | Software error.  | Check the condition of the deck / belt, replace as needed.  |
| C                  | 02B7              | Speed down is over current.   | Software error.  | Replace the MCB.  |
| C                  | 02B8              | Running status over current.  | Software error.  | <ol style="list-style-type: none"> <li>1. Check the connection of the motor.</li> <li>2. Check the condition of the deck / belt, replace as needed.</li> </ol>                                  |
| C                  | 02B9              | The inner memory IC data write error.                                 | MCB failure.   | Replace the MCB.  |
| C                  | 02BA              | The inner memory IC data read error.                                  | MCB failure.   | Replace the MCB.  |
| C                  | 02BC              | Ground connection of fuse error.                                      | MCB failure.   | Replace the MCB.  |
| C                  | 02BD              | Inverter hardware interrupt error.                                    | MCB failure.   | Replace the MCB.  |
| C                  | 04A0              | No communication response.  | Digital Communication failed.  | <ol style="list-style-type: none"> <li>1. Check the console cable connection at the MCB and UCB.</li> <li>2. Check the MCB LEDs.</li> <li>3. Replace the console cable, MCB, or UCB.</li> </ol> |

### ERROR 0140 / 01A0

#### POSSIBLE CAUSES:

- 1) Elevation motor has failed.

#### SOLUTION:

- 1) Check the elevation motor cable connection at the MCB.
- 2) Press and hold INCLINE DOWN and SPEED DOWN to enter Manager Mode.
  - a. Scroll to P16 Auto Calibration, and press ENTER to start. if calibration passes, it may have solved the problem, re-test.
- 3) Check the MCB UP and DOWN LEDs (Figure A) to see if they are lit when the console incline keys are pressed.
  - a. If the LEDs are not lit, check the connection of the console cable at the MCB and UCB.
  - b. If the LEDs are lit, replace the elevation motor.
- 4) If the steps above do not resolve the issue, replace the MCB.

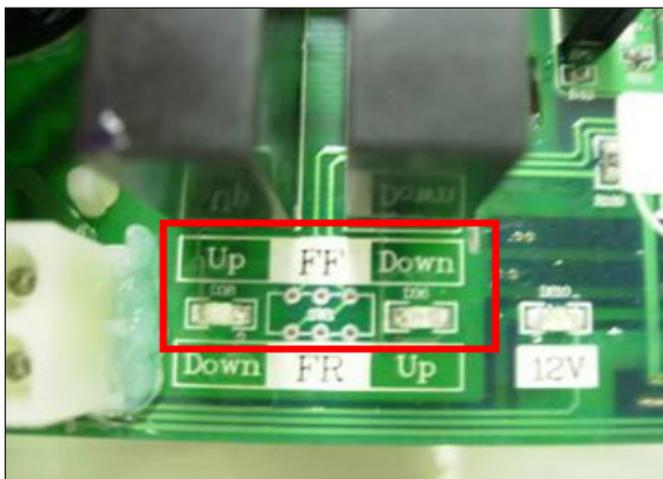


FIGURE A

### ERROR 01A4 / 01A5 / 01A6

#### POSSIBLE CAUSES:

- 1) 01A4 - Main motor U phase disconnected.
- 2) 01A5 - Main motor V phase disconnected.
- 3) 01A6 - Main motor W phase disconnected.

#### SOLUTION

- 1) Check the connection of the motor cable at the MCB. Make sure the wire is not cut or smashed.
- 2) Replace the motor.
- 3) Replace the MCB.

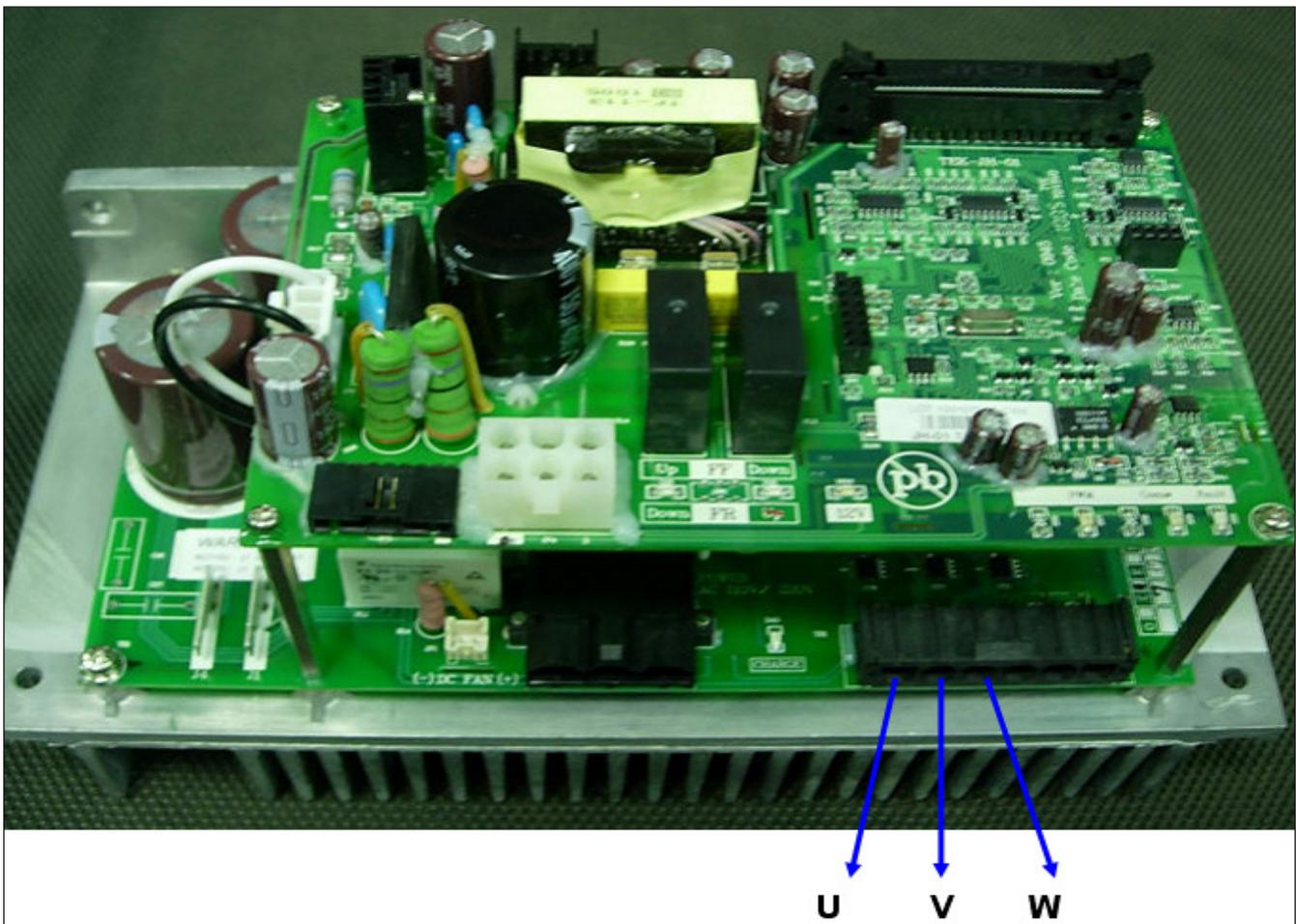


FIGURE A

## 6.8 TROUBLESHOOTING - ERROR 01A8 / 01AD / 02B6 / 02B7 / 02B8

### ERROR 01A8 / 01AD / 02B6 / 02B7 / 02B8

#### POSSIBLE CAUSES:

- 1) 01A8 - Main motor over current (7 Amps).
- 2) 01AD - Inner electron over temperature. Motor over loading.
- 3) 02B6 - Speed up is over current.
- 4) 02B7 - Speed down is over current.
- 5) 02B8 - Running status over current.

#### SOLUTION:

- 1) Check the condition of the belt and deck. Flip or replace the deck if needed.
- 2) Replace the MCB.

## 6.9 TROUBLESHOOTING - ERROR 01AB

### ERROR 01AB

#### POSSIBLE CAUSES:

- 1) 01AB - Inverter Error.

#### SOLUTION:

- 1) With error 01AB present, the MCB Fault LED should be lit. If so, replace the MCB.
- 2) If the MCB Fault LED is not lit, replace the UCB.

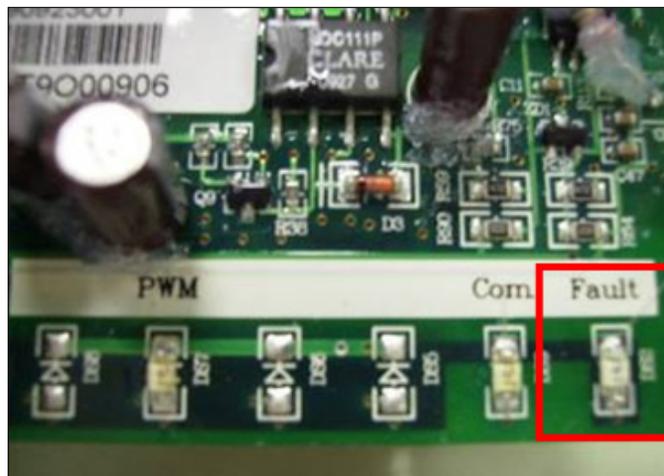


FIGURE A

### ERROR 02A0 / 02A8

#### POSSIBLE CAUSES:

- 1) 02A0 - Main motor failure. The belt does not move when it is supposed to.
- 2) 02A8 - Inverter circuit of the drive motor failed. Motor resistance is closed.

#### SOLUTION

- 1) Check the connection of the motor cable at the MCB (Figure A).
- 2) Check the 3 wires of the motor cable for resistance. With a multi-meter set for Ohms, place the terminals on pins 1 & 2, 2 & 3, and 3 & 1 of the motor cable. There should be a reading of approximately 2.4 Ohms (Figures B - D).
  - a. If the resistance is over 4 Ohms, replace the motor.
  - b. If the resistance is under 4 Ohms, check the condition of the belt and deck.
- 3) If the solution above does not resolve the issue, replace the MCB.

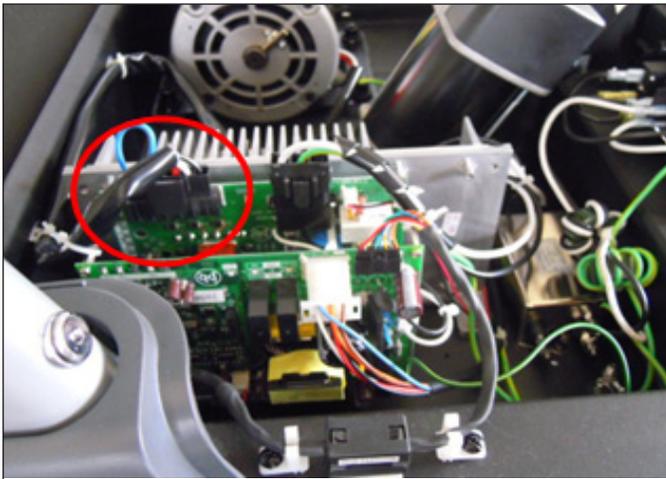


FIGURE A



FIGURE B



FIGURE C



FIGURE D

## 6.11 TROUBLESHOOTING - ERROR 02A1 / 02A2

### ERROR 02A1 / 02A2

#### POSSIBLE CAUSES:

- 1) 02A1 - Over AC power input voltage.
- 2) 02A2 - Over / low DC bus voltage.

#### SOLUTION:

- 1) Check the incoming power to the treadmill.
- 2) Replace the MCB.

## 6.12 TROUBLESHOOTING - ERROR 02AD

### ERROR 02AD

#### POSSIBLE CAUSES:

- 1) 02AD - Motor over temperature.

#### SOLUTION:

- 1) Check the connection of the motor cable at the MCB (Figure A).
- 2) Remove the motor cable from the MCB. Use a multi-meter to check resistance across pins 5 & 6 on the motor cable. There should not be an Ohm reading (should read 0).
  - a. If there is a resistance reading, replace the wire that connects pins 5 & 6 on the motor cable.
  - b. If there is not a resistance reading, replace the MCB.

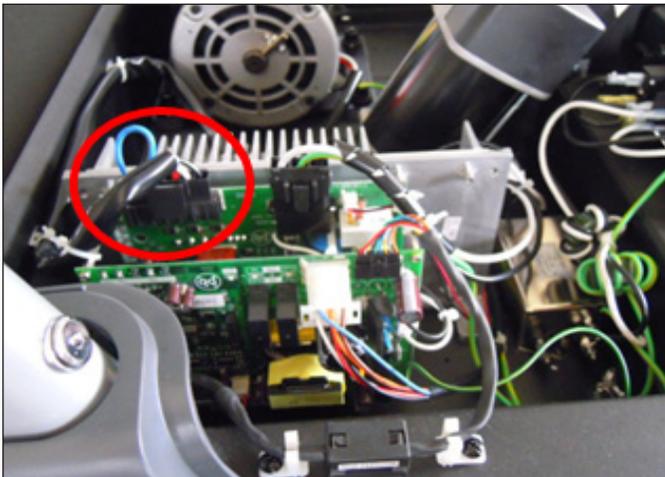


FIGURE A

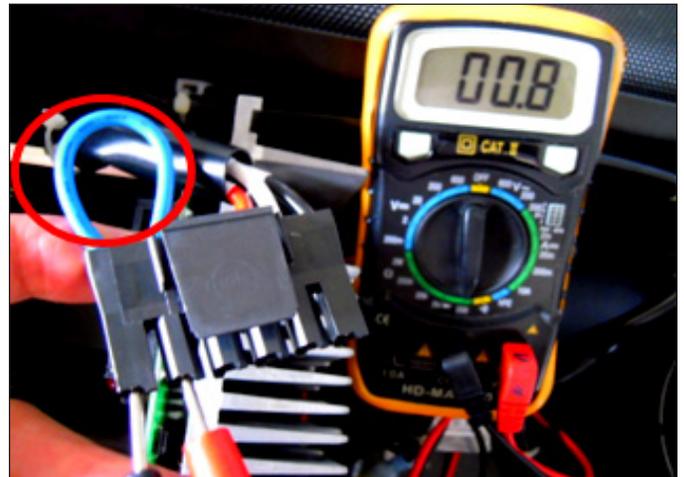


FIGURE B

### ERROR 02B5

#### POSSIBLE CAUSES

1) 02B5 - Inverter senses the normal rated current is over 10.5 Amps for at least 60 seconds.

#### SOLUTION:

1) Check the 3 wires of the motor cable for resistance. With a multi-meter set for Ohms, place the terminals on pins 1 & 2, 2 & 3, and 3 & 1 of the motor cable. There should be a reading of approximately 2.4 Ohms (Figures A - C).

- a. If the resistance is over 4 Ohms, replace the motor.
- b. If the resistance is under 4 Ohms, check the condition of the belt and deck.

2) If the solution above does not resolve the issue, replace the MCB.

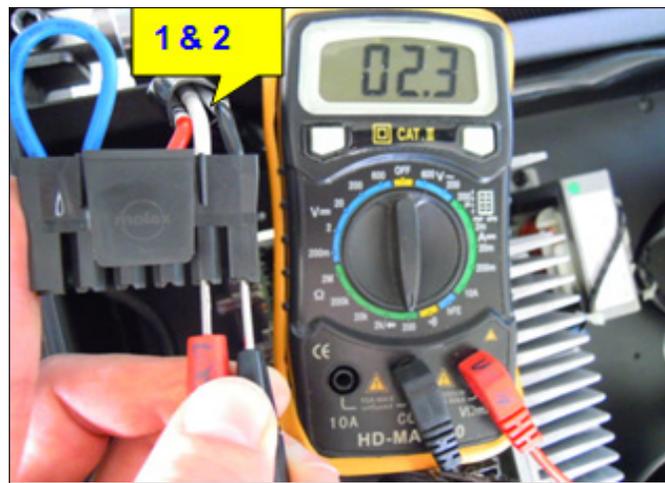


FIGURE A

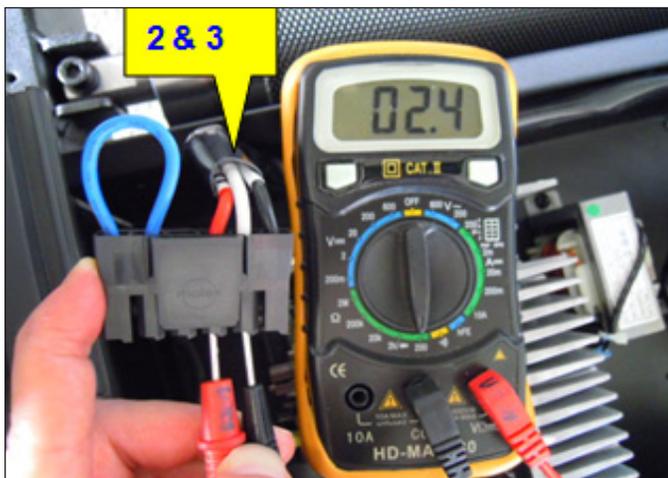


FIGURE B



FIGURE C

## 6.14 TROUBLESHOOTING - ERROR 02B9 / 02BA / 02BC / 02BD

### ERROR 02B9 / 02BA / 02BC / 02BD

#### POSSIBLE CAUSES:

- 1) 02B9 - The inner memory IC data write error.
- 2) 02BA - The inner memory IC data read error.
- 3) 02BC - Ground connection or fuse error.
- 4) 02BD - Inverter hardware interrupt error.

#### SOLUTION:

- 1) Replace the MCB.

## 6.15 TROUBLESHOOTING - ERROR 04A0

### ERROR 04A0

#### POSSIBLE CAUSES:

- 1) 04A0 - No communication response.

#### SOLUTION

- 1) If error 04A0 is present, the MCB Com LED should be burnt out (Figure A).
- 2) Check the connection of the console cable at the UCB and MCB (Figure B).
- 3) Replace the console cable.
- 4) Replace the UCB.
- 5) Replace the MCB.

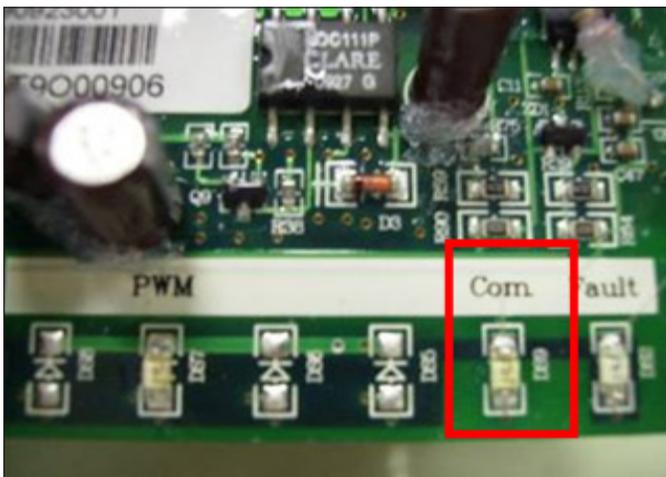


FIGURE A

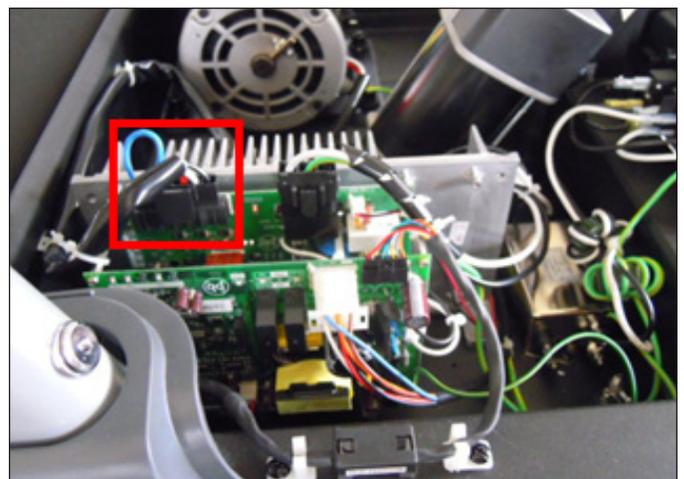


FIGURE B

## 6.16 TROUBLESHOOTING - HEART RATE ISSUES

### HEART RATE ISSUES

#### **POSSIBLE CAUSES:**

- a. HR grips are bad causing no heart rate.
- b. HR board or ground is bad causing no or high heart rate.

#### **SOLUTION:**

- a. With a multi meter set for DC Voltage, place one prong of the multi meter 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 multi meter 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 multi meter 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

## 6.17 TROUBLESHOOTING - NO POWER TO THE CONSOLE

### NO POWER TO THE CONSOLE

#### POSSIBLE CAUSES:

- 1) The unit is not getting power from the outlet.
- 2) The MCB is not getting power from the power receptacle.
- 3) The MCB LEDs are lit, but there is no power to the console.

#### SOLUTION:

- 1-2) Remove the front cover and check to see if LED 12V is lit on the MCB (Figure A).
  - a. If it is not, verify power at the outlet.
  - b. If LED 12V is still not lit after verifying outlet power, replace the power components (cord, switch, receptacle).
  - c. If the replacing the power components does not resolve the issue, replace the MCB.
- 3) Check to see if LED11 is lit on the UCB (Figure B).
  - a. If LED11 is lit, the console should be on. If not, replace the UCB.
  - b. If LED11 is not lit, check the connection of the console cable. Use a multi-meter to measure voltage across pins 1 and 3 of the console cable. There should be a reading of around 12V. Replace the console cable if this voltage is not seen. If the voltage is correct, replace the UCB.

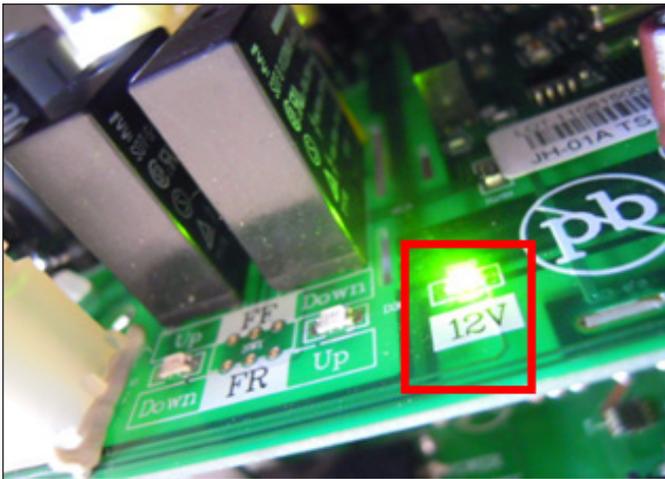


FIGURE A

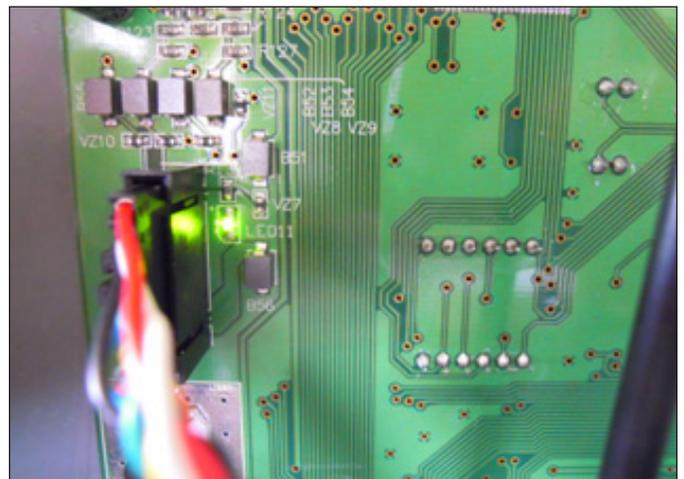


FIGURE B

## 7.1 MOTOR COVER REPLACEMENT

- 1) Turn off power and disconnect the cord from the unit.
- 2) Remove the 8 screws holding the motor cover to the frame (Figures A & B).



**FIGURE A**



**FIGURE B**

- 3) Pull up on the motor cover and remove it (Figure C).

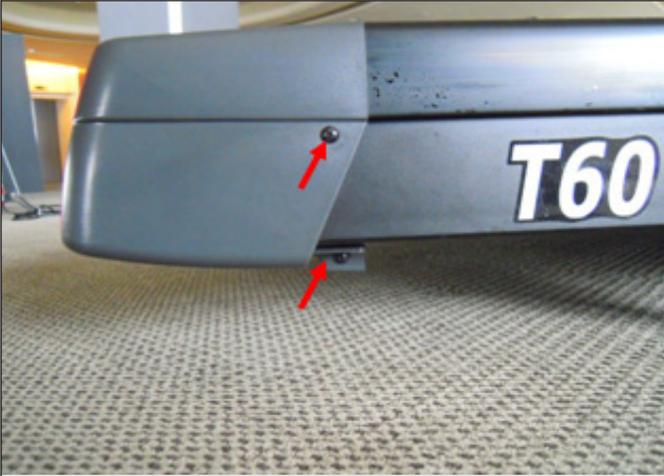


**FIGURE C**

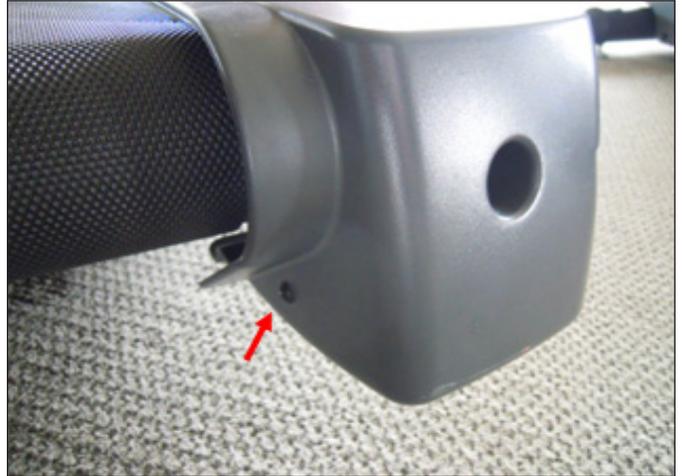
- 4) Reverse Steps 1-3 to install a new motor cover.

## 7.2 REAR ROLLER REPLACEMENT

- 1) Remove both rear roller end caps using a Phillips screwdriver (Figures A & B).

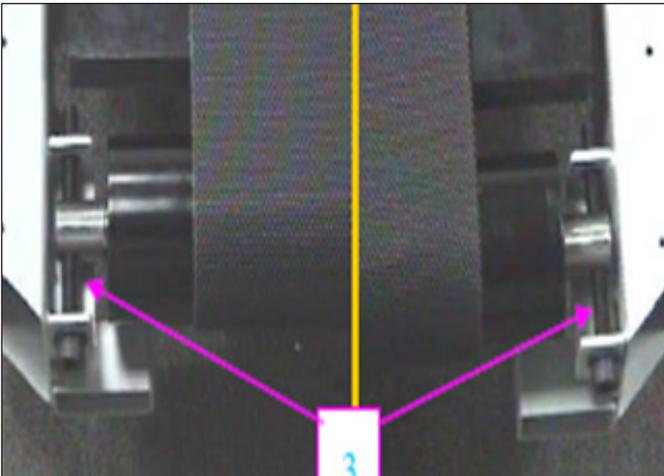


**FIGURE A**



**FIGURE B**

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



**FIGURE C**

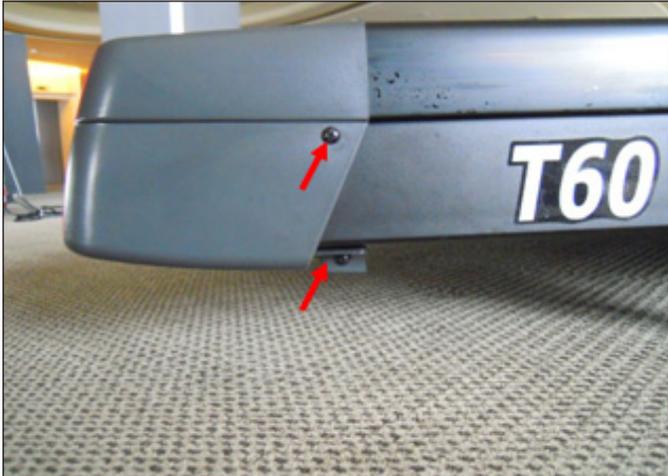


**FIGURE D**

- 4) Reverse Steps 1-3 to install a new rear roller.
- 5) Center and tension the running belt as outlined in Section 3.2.

## 7.3 SIDE RAIL REPLACEMENT

- 1) Remove the motor cover as outlined in Section 7.1.
- 2) Remove the rear roller end cap using a Phillips screwdriver (Figures A & B).

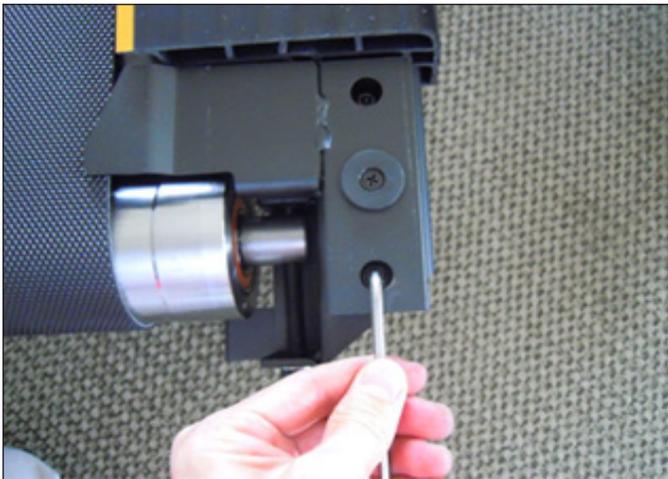


**FIGURE A**

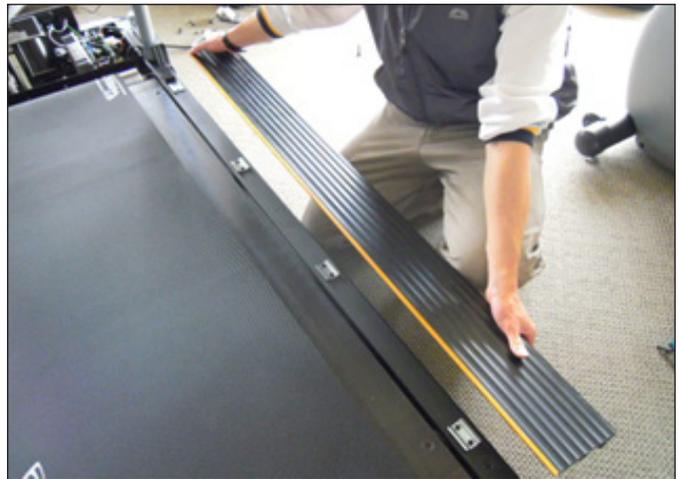


**FIGURE B**

- 3) Remove the rear roller end cap bracket using a 3mm Allen Wrench (Figure C).
- 4) Slide the side rail off the back of the treadmill (Figure D).



**FIGURE C**



**FIGURE D**

- 5) Reverse Steps 1-4 to install a new side rail.

## 7.4 FRONT ROLLER REPLACEMENT

- 1) Remove the motor cover as outlined in Section 7.1.
- 2) Use a hook or loop of wire to remove the spring from the drive belt tensioner (Figure A).
- 3) Remove the mounting bolt of the tension wheel set using a 5mm Allen Wrench (Figure B). Be careful to hold the tension wheel set as it will drop once the mounting bolt is removed.



**FIGURE A**

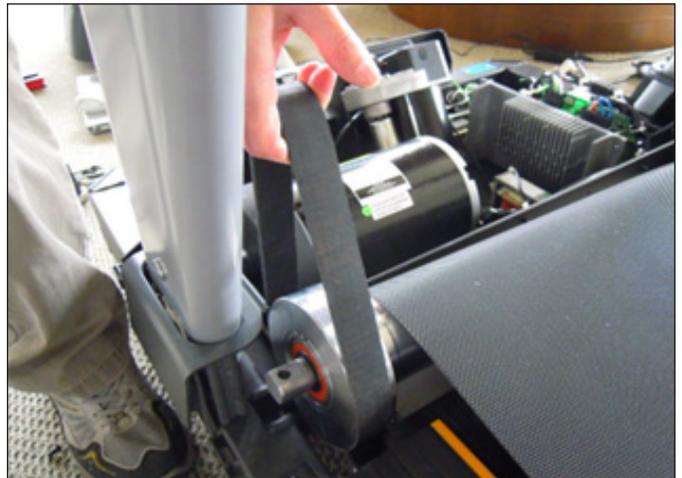


**FIGURE B**

- 4) Loosen the rear roller screws to remove tension from the running belt.
- 5) Remove the front roller mounting screws on each side of the roller with an 8mm Allen Wrench (Figure C).
- 6) Remove the drive belt from the front roller and remove the front roller from the running belt (Figure D).



**FIGURE C**



**FIGURE D**

- 7) Reverse Steps 1-6 to install a new front roller.
- 8) Center and tension the running belt as outlined in Section 3.2.

### 7.5 DECK REPLACEMENT

- 1) Remove the motor cover as outlined in Section 7.1.
- 2) Remove the side rails as outlined in Section 7.3.
- 3) Remove the 4 deck screws using a 5mm Allen Wrench (Figure A).
- 4) Remove the deck from the running belt (Figure B). **NOTE:** It may be necessary to loosen the rear roller bolts to lessen the tension on the belt prior to removing the deck. Be careful not to pinch fingers during removal / installation of the deck.

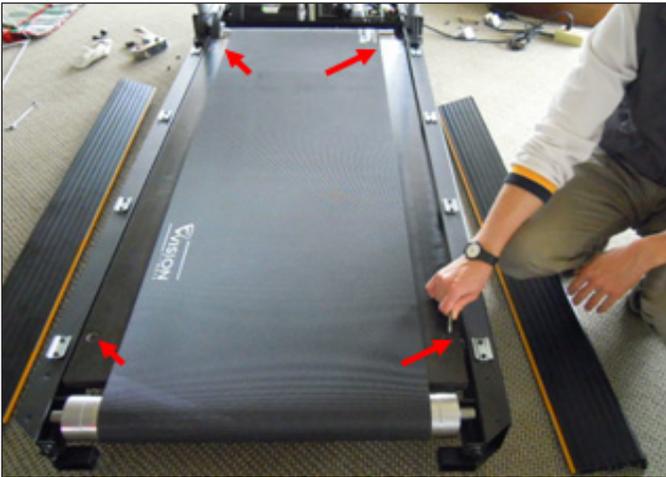


FIGURE A

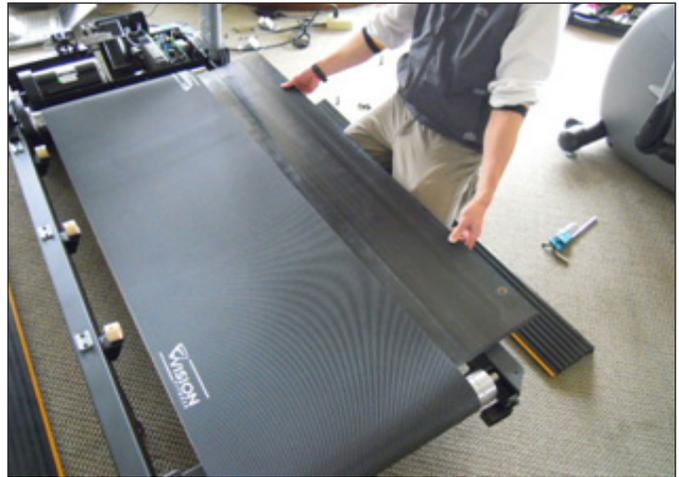


FIGURE B

- 5) Reverse Steps 1-4 to install a new deck. The deck is waxed on both sides, so it is possible to just flip the deck to create a new running surface. **NOTE:** A new deck surface must ALWAYS be matched to a new running belt.
- 6) Center and tension the running belt as outlined in Section 3.2.

### 7.6 RUNNING BELT REPLACEMENT

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- 1) Remove the motor cover as outlined in Section 7.1.
- 2) Remove the rear roller as outlined in Section 7.2.
- 3) Remove the front roller as outlined in Section 7.4.
- 4) Remove the deck as outlined in Section 7.5.
- 5) Remove the running belt and replace it with a new belt (Figure A). **NOTE:** A new running belt should ALWAYS be installed on a new deck surface (the deck should either be flipped or replaced).



FIGURE A

- 6) Reverse Steps 1-5 to install a new running belt.
- 7) Center and tension the belt as outlined in Section 3.2.

### 7.7 DECK ELASTOMER REPLACEMENT

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- 1) Remove the deck as outlined in Section 7.4.
- 2) Hold the elastomer bolt with a 5mm Allen Wrench while loosening the elastomer nut with a 13mm wrench and remove the deck elastomer (Figure A).



**FIGURE A**

- 3) Reverse Steps 1-2 to install new deck elastomers.
- 4) Center and tension the belt as outlined in Section 3.2.

## 7.8 MOTOR CONTROL BOARD (MCB) REPLACEMENT

- 1) Turn off power and remove the power cord from the unit.
- 2) Remove the motor cover as outlined in Section 7.1.
- 3) Cut any wire ties that are secured to the MCB frame (Figure A).
- 4) Remove the wire connections to the MCB (Figure B).

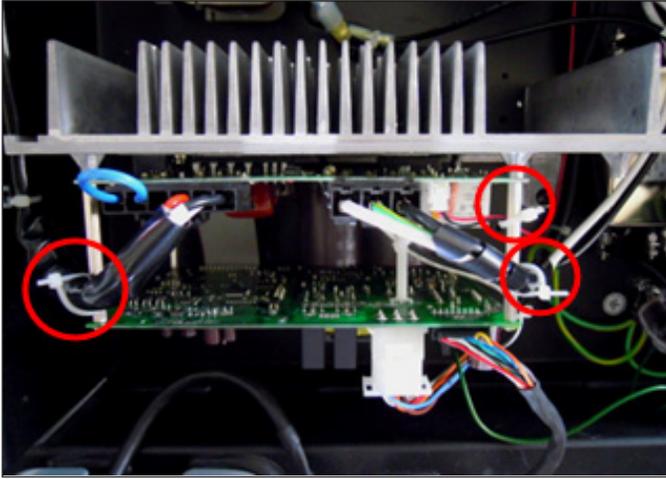


FIGURE A



FIGURE B

- 5) Remove the 4 screws holding the MCB to the motor tray using a Phillips screwdriver and remove the MCB (Figure C).

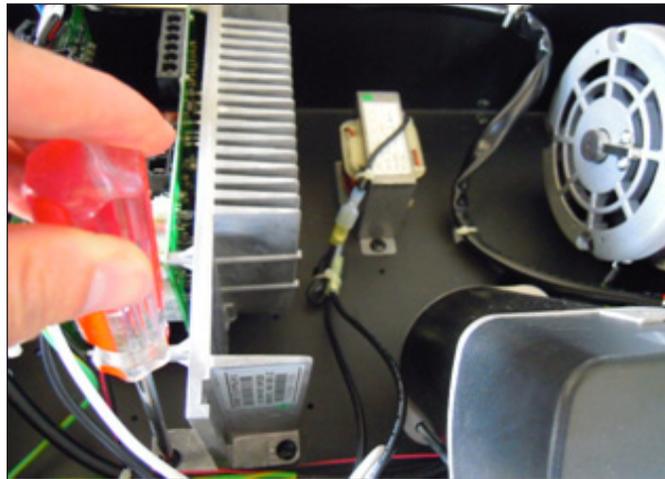


FIGURE C

- 6) Reverse Steps 1-5 to install a new MCB. **NOTE:** Replace any cable ties removed during replacement.
- 7) Test the treadmill for function as outlined in Section 7.15.

## 7.9 MOTOR REPLACEMENT

- 1) Turn off power and remove the power cord from the unit.
- 2) Remove the motor cover as outlined in Section 7.1.
- 3) Use a hook or loop of wire to remove the spring from the drive belt tensioner (Figure A).
- 4) Remove the mounting bolt of the tension wheel set using a 5mm Allen Wrench (Figure B). Be careful to hold the tension wheel set as it will drop once the mounting bolt is removed.



FIGURE A

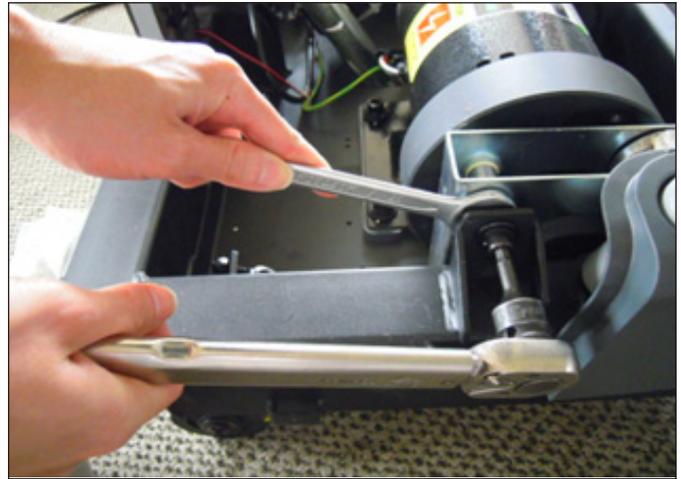


FIGURE B

- 5) Disconnect the motor cable from the MCB and cut any tie straps holding the cable in place (Figure C).
- 6) Disconnect the motor ground wire from the motor and cut any tie straps holding the ground wire in place.
- 7) Use an 8mm Allen Wrench to remove the 4 motor mounting screws (Figure D), and remove the motor.

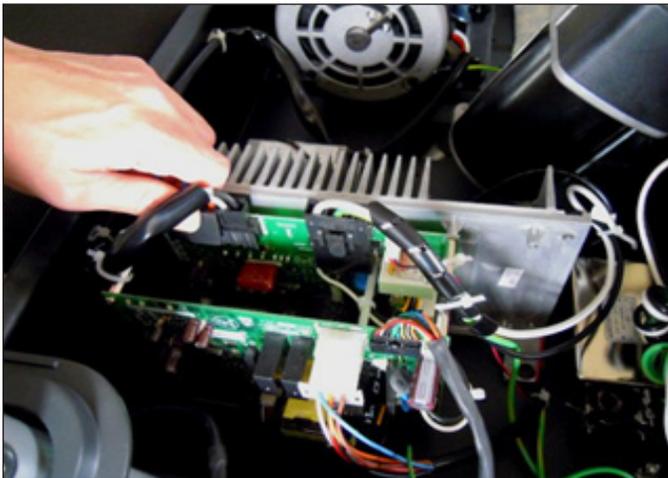


FIGURE C



FIGURE D

- 8) Reverse Steps 1-7 to install a new motor. **NOTE:** Torque the screws removed in Step 4 to 35 N-m and those removed in Step 7 to 10 N-m.
- 9) Test the treadmill for function as outlined in Section 7.15.

## 7.10 INCLINE MOTOR REPLACEMENT

- 1) Turn off power and remove the power cord from the unit.
- 2) Remove the motor cover as outlined in Section 7.1.
- 3) Lift up the treadmill and support the front end so that the front wheels are off of the floor (Figure A). The treadmill could also be tipped on its side.
- 4) Remove the bolt attaching the incline motor to the rack (Figure B).



FIGURE A



FIGURE B

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

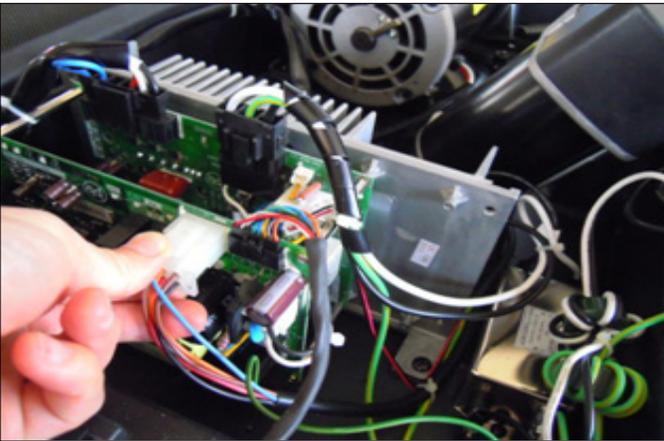


FIGURE C



FIGURE D

- 7) Lift the incline motor away from the treadmill (Figure E).



FIGURE E

- 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.
- 9) Test the treadmill as outlined in Section 7.15.

## 7.11 CONSOLE REPLACEMENT

- 1) Turn off power and remove the power cord from the unit.
- 2) Remove the 4 screws holding the console faceplate to the frame (Figure A).
- 3) Pull up on the console faceplate (Figure B).



**FIGURE A**



**FIGURE B**

- 4) Disconnect the console cable, emergency stop wire, and heart rate wiring from the defective console and remove it (Figure C).



**FIGURE C**

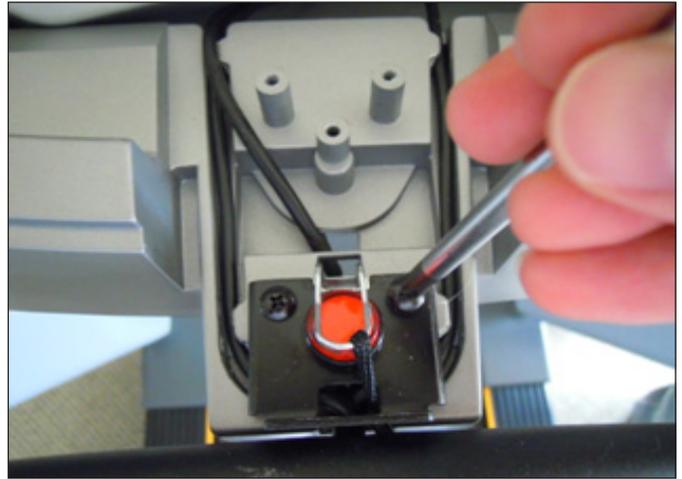
- 5) Reverse Steps 1-4 to install a new console.
- 6) Test the treadmill for function as outlined in Section 7.15.

### 7.12 EMERGENCY STOP SWITCH REPLACEMENT

- 1) Turn off power and remove the power cord from the unit.
- 2) Remove the console as outlined in Section 7.11.
- 3) Remove the 2 screws holding the yellow emergency stop key to the emergency stop frame (Figure A).
- 4) Remove the 2 screws holding the emergency stop frame to the console frame (Figure B).

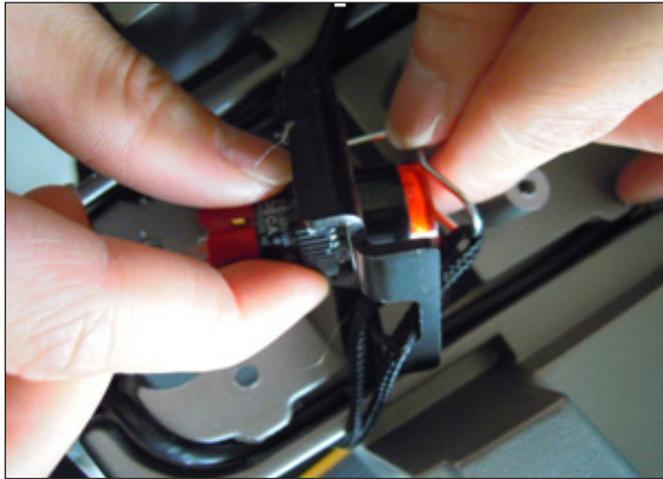


**FIGURE A**



**FIGURE B**

- 5) You can now remove the emergency stop switch from the frame (Figure C).



**FIGURE C**

- 6) Reverse Steps 1-5 to install a new emergency stop switch.
- 7) Test the treadmill for function as outlined in Section 7.15.

### 7.13 CONSOLE FRAME REPLACEMENT

- 1) Turn off power and remove the power cord from the unit.
- 2) Remove the console as outlined in Section 7.11.
- 3) Remove the emergency stop switch set as outlined in Section 7.12.
- 4) Remove the 8 screws holding the console frame to the handlebar frame (Figure A).

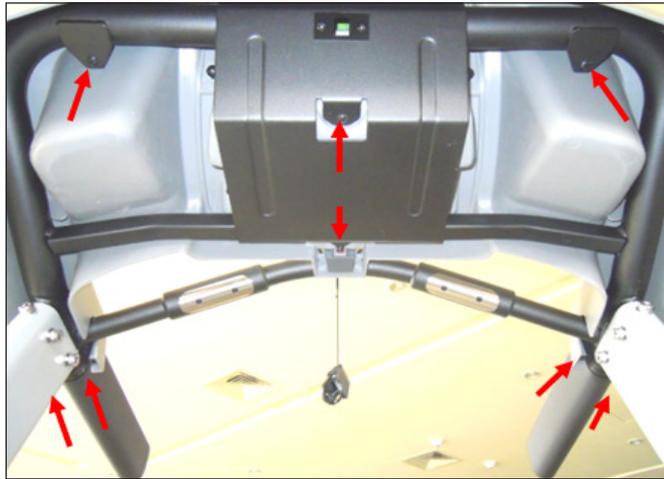


FIGURE A

- 5) Remove the console frame from the handlebar frame. **NOTE:** The console cable wiring needs to be removed from the console frame as it is removed (Figure B).

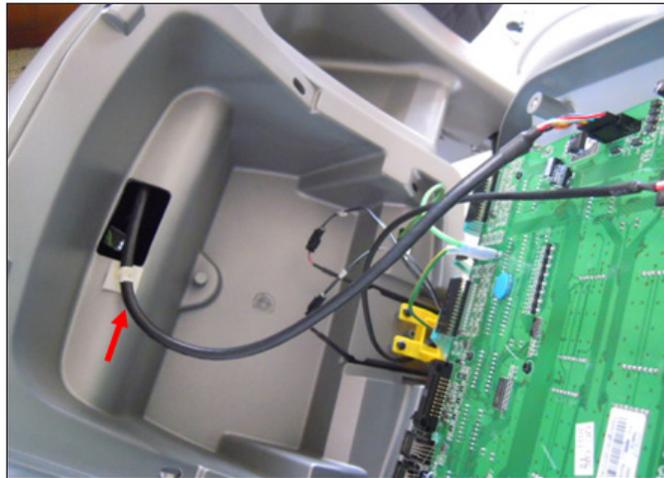


FIGURE B

- 6) Reverse Steps 1-5 to install a new console frame.
- 7) Test the treadmill for function as outlined in Section 7.15.

## 7.14 HEART RATE BOARD REPLACEMENT

- 1) Turn off power and remove the power cord from the unit.
- 2) Remove the 4 screws holding the console faceplate to the frame (Figure A).
- 3) Pull up on the console faceplate to locate the heart rate board on the back of the faceplate (Figure B).



FIGURE A

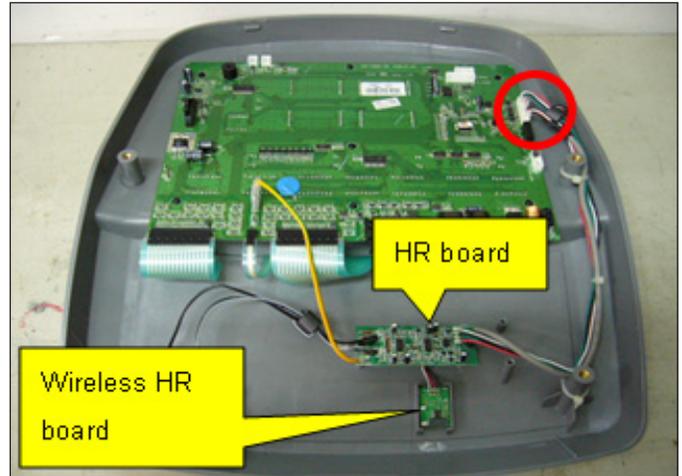


FIGURE B

- 4) Disconnect the wires from each side of the heart rate board (Figure C).
- 5) Remove the 2 screws holding the heart rate board to the console (Figure D) and remove the heart rate board.

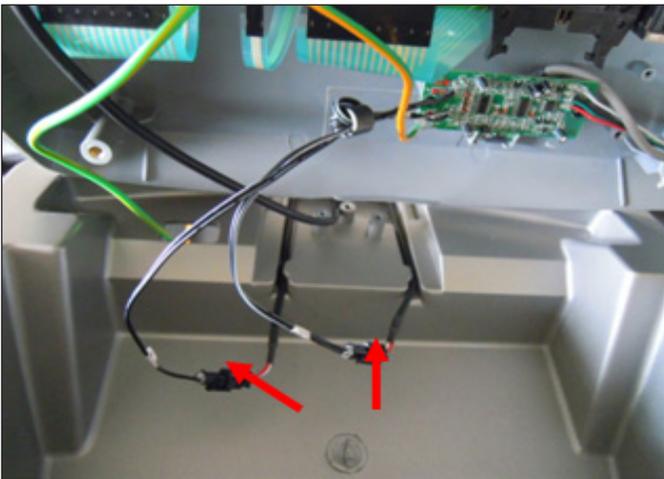


FIGURE C

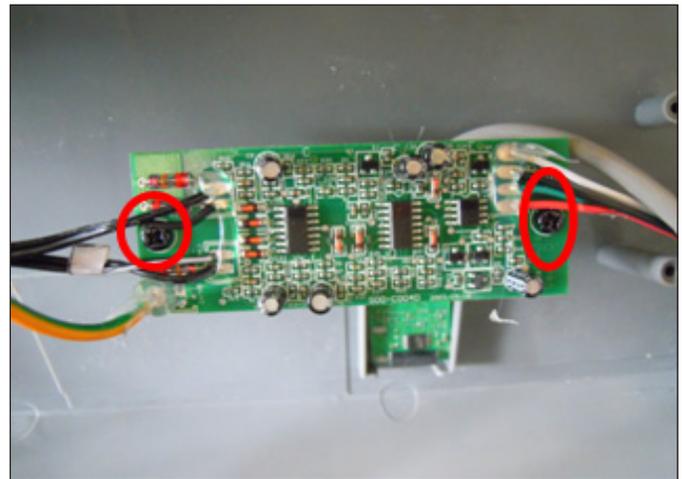


FIGURE D

- 6) Reverse Steps 1-5 to install a new heart rate board.
- 7) Test the treadmill for function as outlined in Section 7.15.

### 7.15 TESTING THE TREADMILL

---

#### **ONCE THE TREADMILL OR REPLACEMENT PART IS FULLY INSTALLED AND ASSEMBLED, USE THE FOLLOWING INSTRUCTIONS TO SETUP AND TEST THE MACHINE.**

- 1) If the treadmill was just assembled, or if any electronic component was replaced (or the console cable was unplugged for any reason), the treadmill must be auto calibrated. See Section 3.3.
- 2) If the treadmill was just assembled, or if the running belt, deck, or rollers are replaced, the belt should be centered and tensioned as outlined in Section 3.2.
- 3) Once Auto Calibration has been run, and the belt is centered and tensioned, press the GO key on the display. Listen for any unusual squeaks or other noises.
- 4) Press the INCLINE up key until the treadmill goes to maximum incline, then lower back down to the minimum incline using the INCLINE DOWN key. Listen for any unusual squeaks or other noises.
- 5) Press the SPEED UP key until the treadmill goes to maximum speed, then lower back down to the minimum speed using the SPEED DOWN key. Listen for any unusual squeaks or other noises.
- 6) Grasp the heart rate grips to check for proper heart rate response.
- 7) Press and release the Emergency Stop to test the stop and to return to normal operation.

# CHAPTER 8: TREADMILL SPECIFICATIONS AND ASSEMBLY GUIDE

## 8.1 TREADMILL SPECIFICATIONS

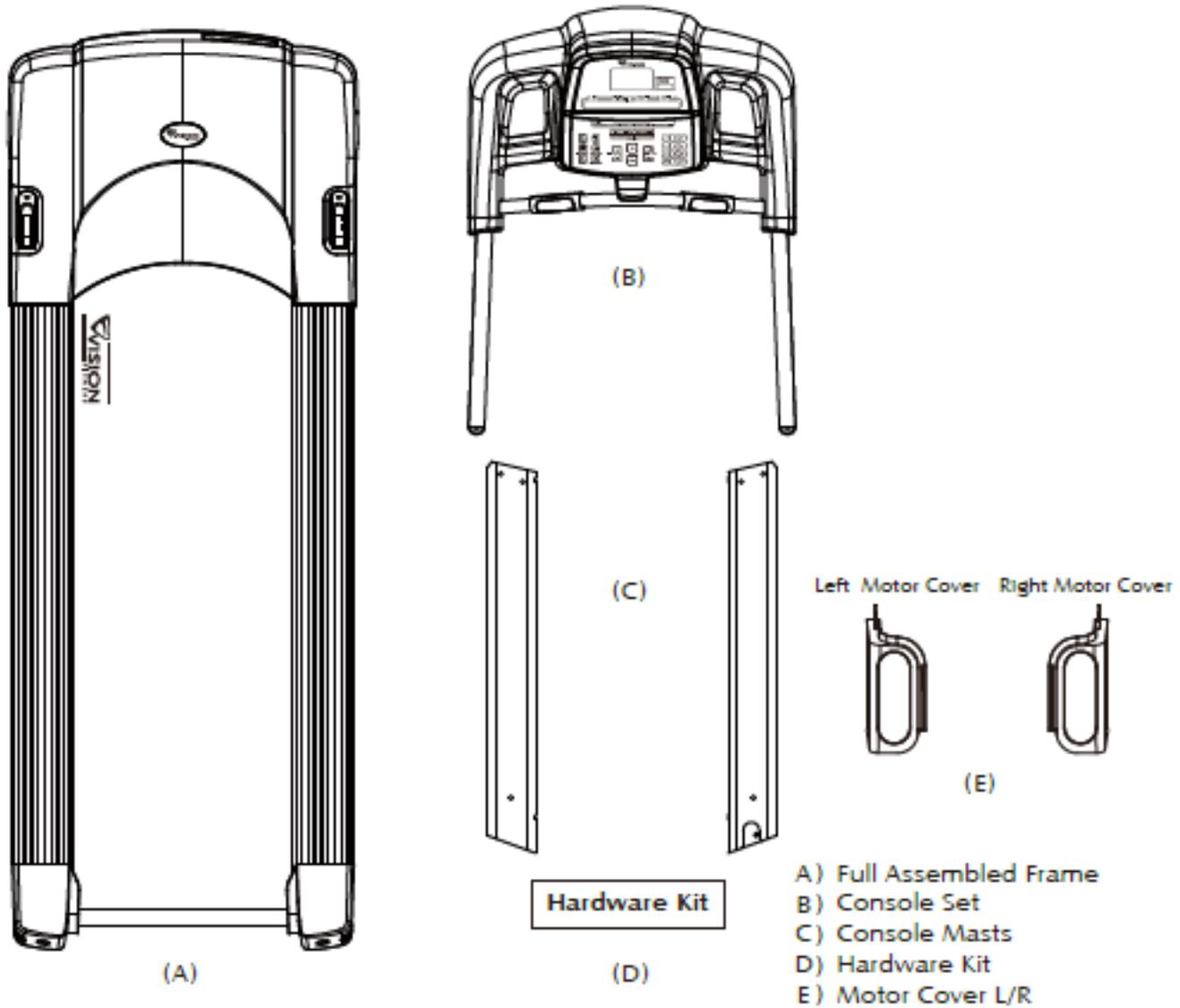
| <b>CONSOLE</b>            |   |
|---------------------------|---|
| Display Screen            | Workout Profile Window - 10 x 14 green LED dot matrix display   |
| Display Readout           | Time, Pace, Incline, Distance, Speed, Level, Calories, METs, Target HR, Actual HR, Profile  |
| Programs                  | Manual, Interval, Goal+ (Time Goal, Distance Goal, Calories Goal), Random, Heart Rate+ (Target HR, Weight Loss - BMI Test), Fitness Test. |
| On-the-fly Program Change | Yes   |
| Telemetric Receiver       | Yes   |
| Contact HR Sensors        | Yes   |
| Program Plus™ Keys        | Yes   |
| Number Keys               | Yes   |
| One-Touch Quick Start     | Yes   |
| Pause Time                | Yes   |
| Safety Stop               | Push button with lanyard clip.  |
| <b>TECHNICAL DATA</b>     |   |
| Drive Motor               | 3.0 hp AC drive system.   |
| Motor Controller          | Club grade AC drive.  |
| Speed Range               | 0.8 - 20 KMH / 0.5 - 12 MPH   |
| Elevation Range           | 0 - 15%   |
| Deck                      | 1" reversible deck  |
| Deck Step Height          | 20 cm / 7.9"  |
| Belt Area                 | 51 x 160 cm / 20" x 63"   |
| Belt Type                 | Multi-ply, pre waxed.   |
| Cushion System            | Dynamically controlled cushioning system  |
| Rollers                   | 7.6 cm / 3" diameter precision controlled steel, front and back   |
| Side Handrails            | 51 cm (20") long, cantilevered  |
| Foot Standing Platform    | One piece extrude   |
| Dimensions (L x W x H)    | 214 cm x 82 cm x 144 cm / 84" x 32.5" x 57"   |
| Product Weight            | 150 kg / 330 lbs  |
| Max User Weight           | 159 kg / 350 lbs  |
| Power Requirements        | 110V - 220V dedicated circuit required  |
| <b>SPECIAL FEATURES</b>   |   |
| Integrated Accessory Tray | Yes   |
| Integrated Reading Rack   | Yes   |

# CHAPTER 8: TREADMILL SPECIFICATIONS AND ASSEMBLY GUIDE

## 8.2 UNPACKING THE TREADMILL

The T60 is carefully inspected before it is packaged. Carefully unpack the unit and dispose of the box material.

**CAUTION:** This unit weighs 330 lbs / 150 kg. To avoid injury, be sure to have proper assistance to remove and move the unit.



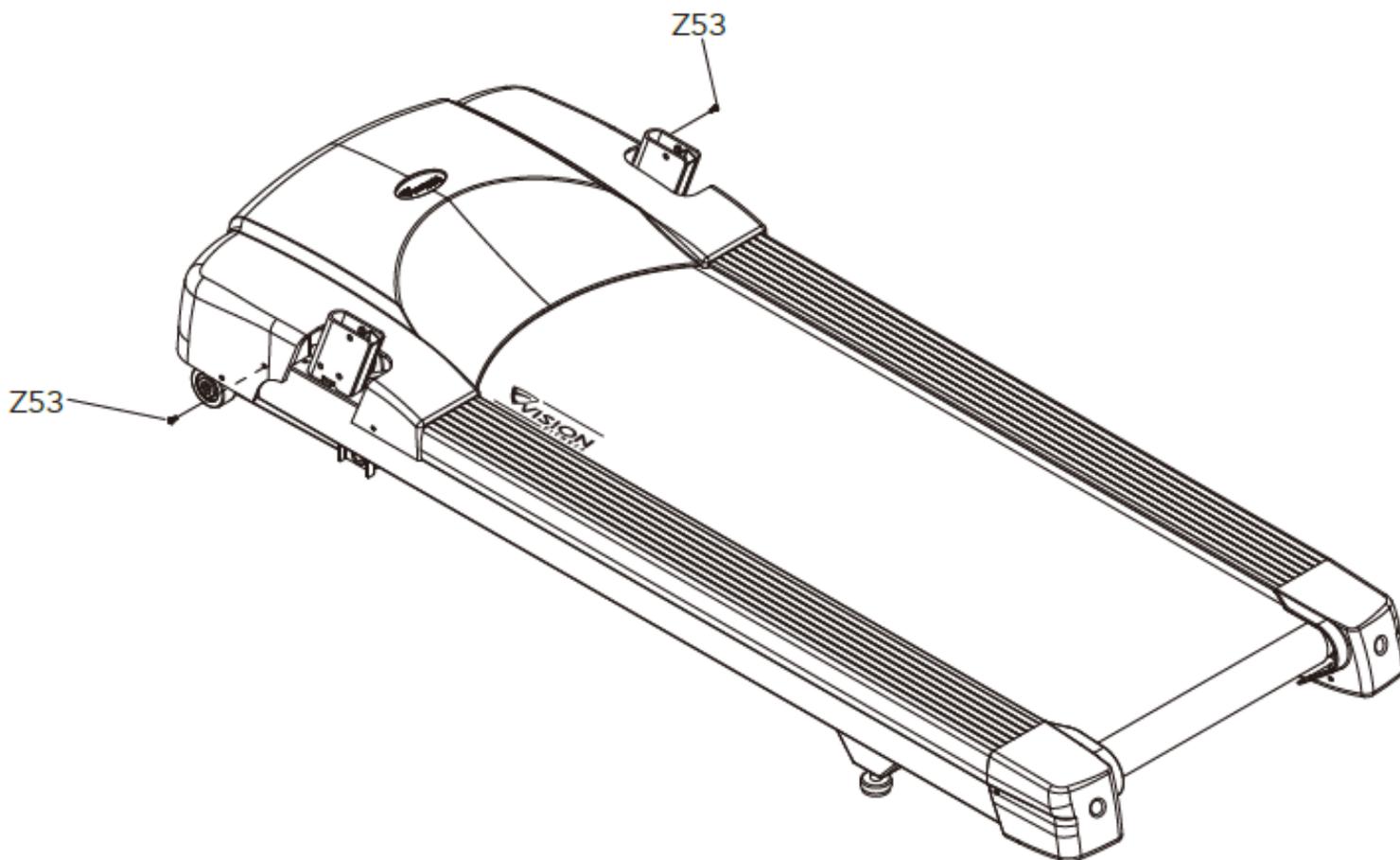
## Fasteners

| PART # | DESCRIPTION                                  | QUANTITY | NOTE           |
|--------|--|----------|----------------|
| Z05    | 8mm T-Shaped Wrench                          | 1        |                |
| Z50    | Hex Socket Thin Head Screw (m8 x 1.5P x 15L) | 10       | White          |
| Z51    | Arc Washer (8.2 x 18 x 1.5T)                 | 2        | White          |
| Z53    | Phillip Button Head Screw (M5 x 0.8P x 12L)  | 12       | Black / Yellow |
| Z54    | Hex Socket Head Screw (M10 x 1.5P x 20L)     | 6        | Blue           |
| Z55    | Flat Washer (10.5 x 18 x 2.0T)               | 4        | Blue           |
| Z56    | Arc Washer (10.2 x 20 x 1.5T)                | 2        | Blue           |
| Z62    | Saddle Type Tie Mount (HC-4 KSS)             | 1        | Red            |
| Z63    | Realisable Cable Tie (HV150HB KSS)           | 1        | Red            |
| Z64    | Phillip Round Head Screw (M5 x 0.8P x 20L)   | 1        | Red            |

## 8.3 ASSEMBLY INSTRUCTIONS

### STEP 1 - Remove the motor cover.

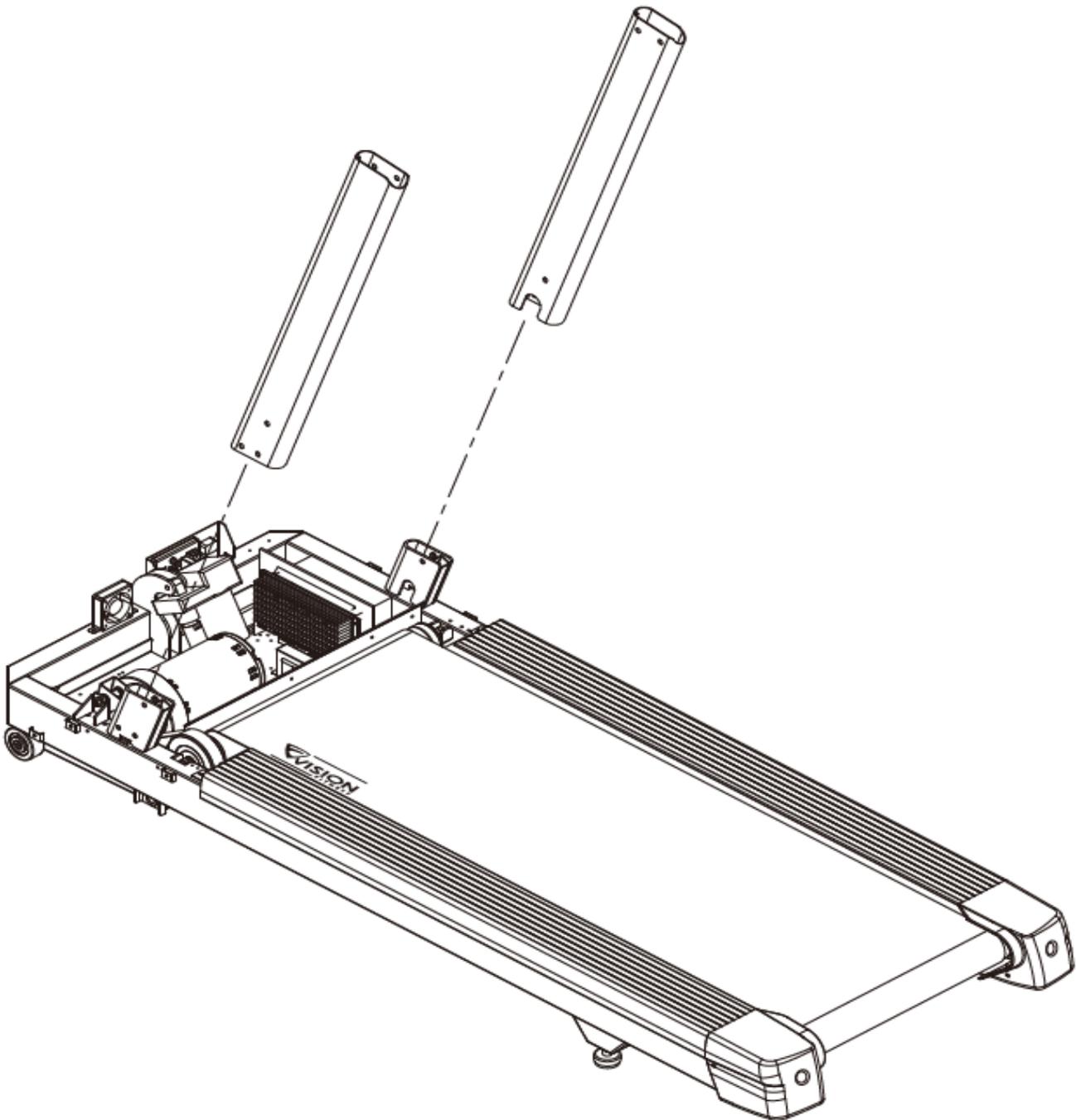
Unscrew the left and right side screws (Z53) and lift the motor cover off the treadmill and set it aside.



## 8.3 ASSEMBLY INSTRUCTIONS - CONTINUED

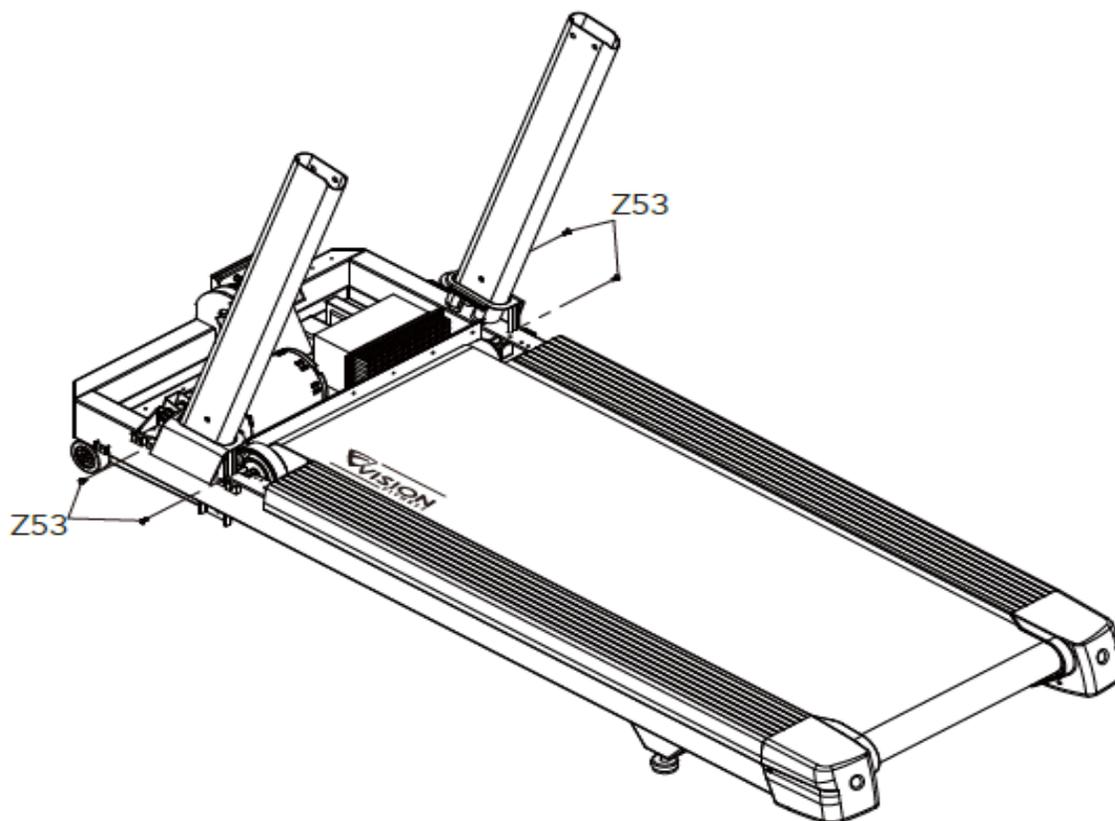
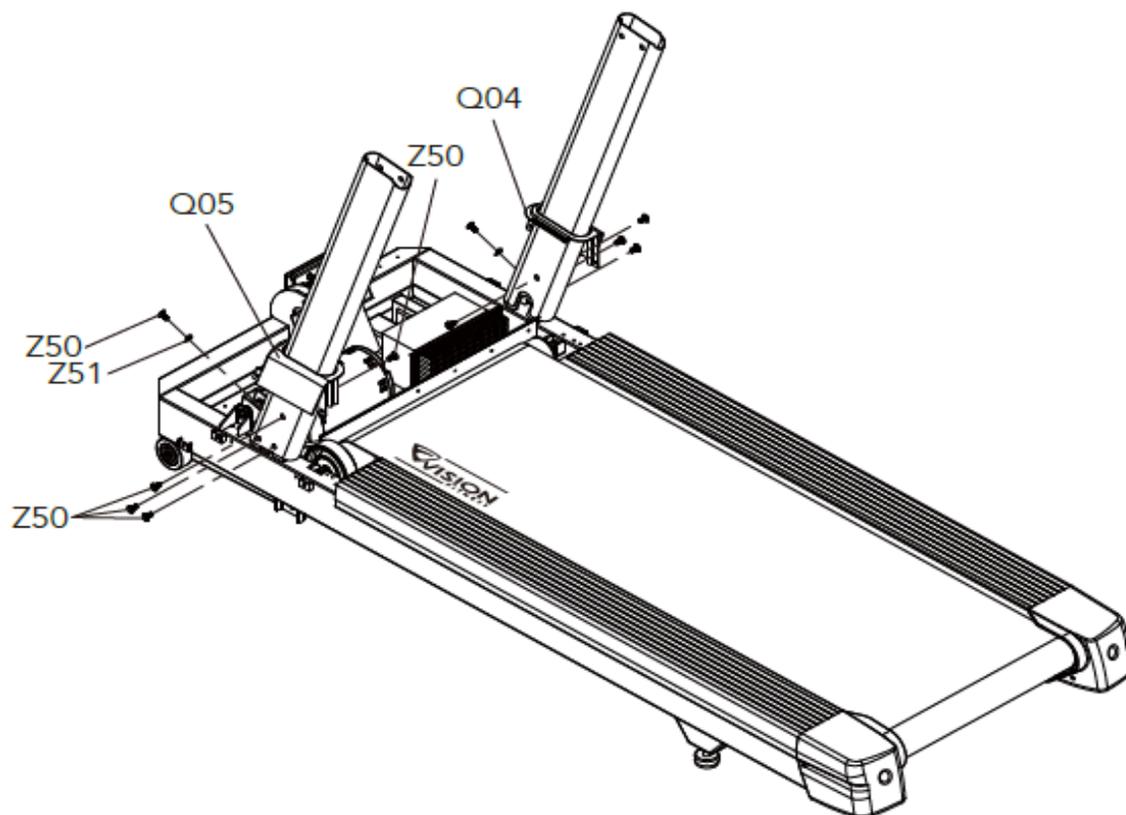
### STEP 2 - Secure the left and right console mast.

- a. Attach the left console mast by placing it on the console mast support bracket and aligning with the mounting holes.
- b. Lift up the plastic piece (Q05) that is attached beside the motor cover. Place 3 screws (Z50) on the outside and 1 screw (Z50) on the inside and secure the screws, but do not completely tighten.
- c. Place a wave washer (Z51) on the screw (Z50) and secure the screw in the front of the console mast.
- d. Put the plastic piece (Q05) down. Place 2 screws (Z53) and secure the screws into the frame.
- e. Repeat Steps a-d with the right side console mast.



8.3 ASSEMBLY INSTRUCTIONS - CONTINUED

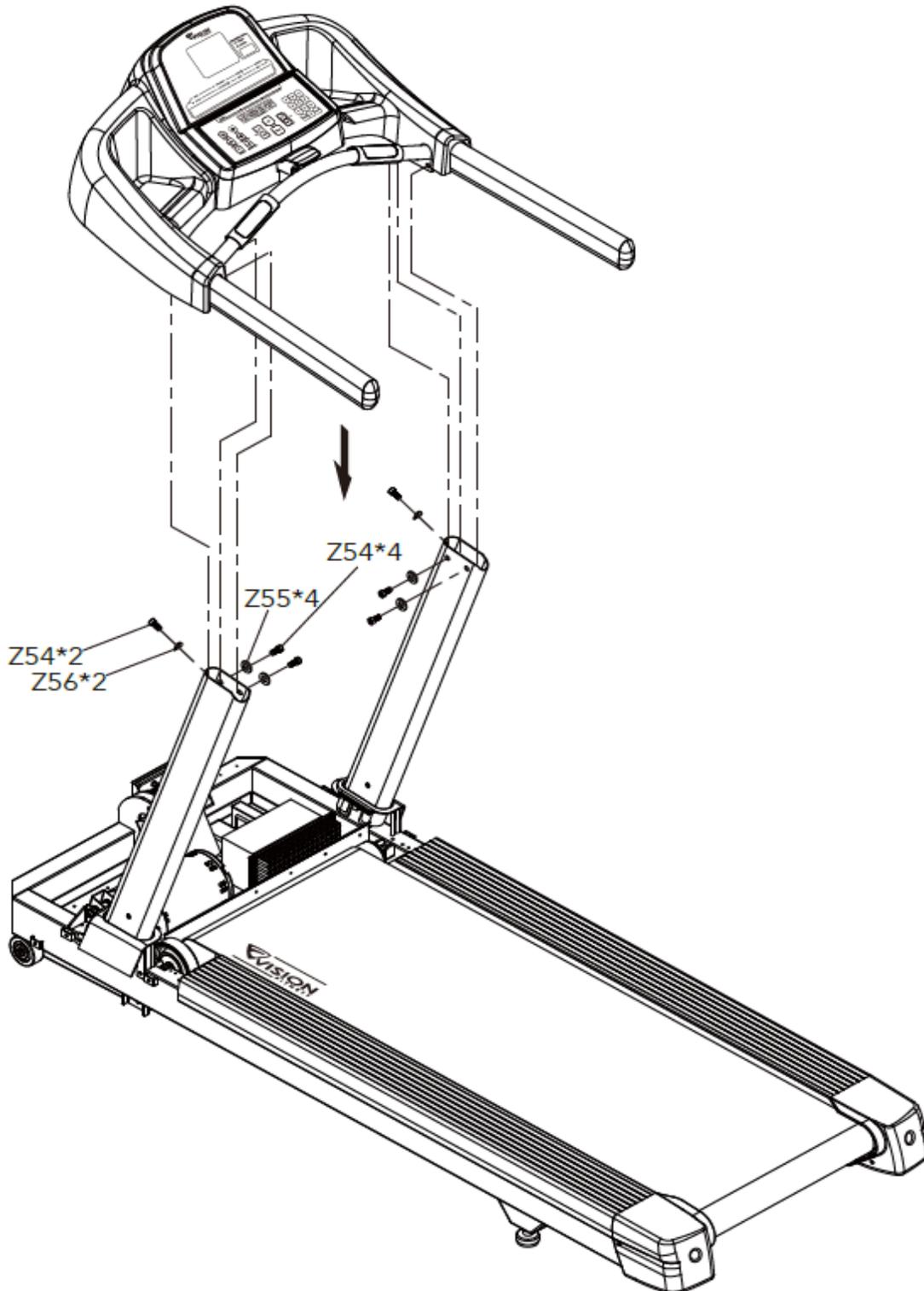
STEP 2 - Secure the left and right console mast - Continued



## 8.3 ASSEMBLY INSTRUCTIONS - CONTINUED

### STEP 3 - Attach the console to the console mast.

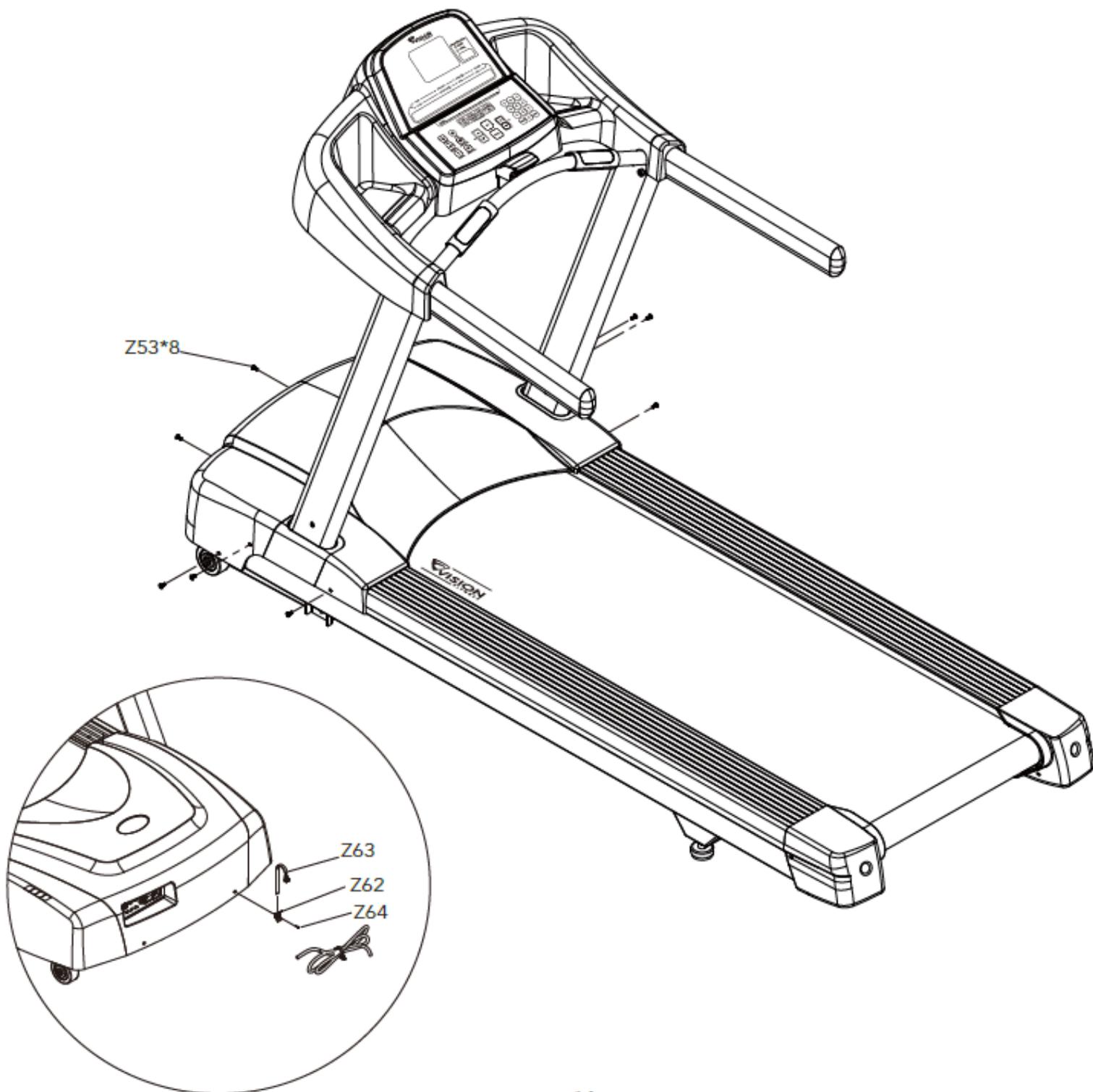
- a. Route the console cable through the right console mast and pull it out of the hole in the side of the console mast near the frame. Ask an assistant to hold the console in place while you route the cable through the console mast.
- b. Attach the console to the right and left console mast using 6 screws (Z54) and washers (Z55 & Z56) to secure.
- c. Plug the cable connector into its receptacle on the lower board near the motor.



## 8.3 ASSEMBLY INSTRUCTIONS - CONTINUED

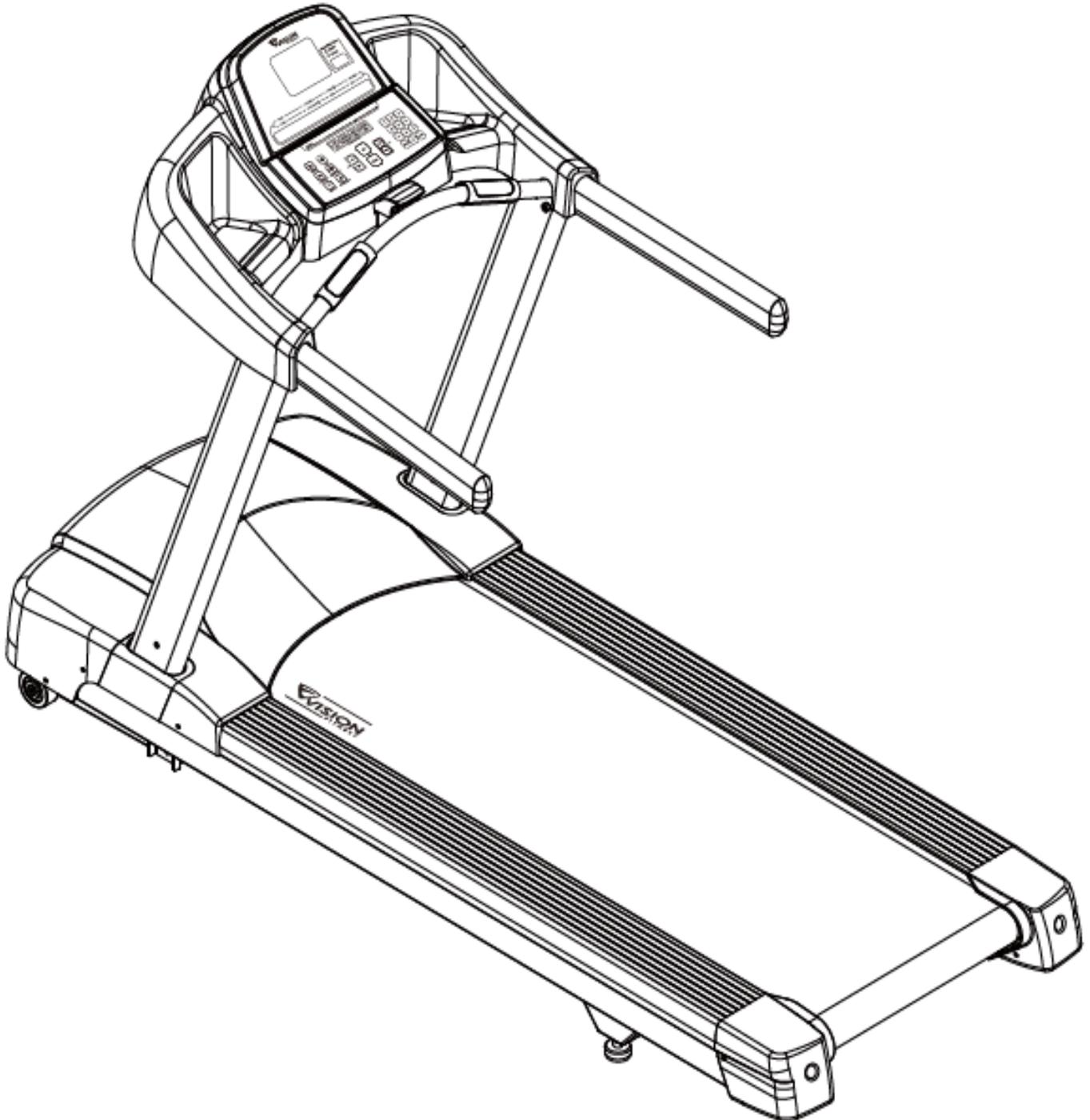
### STEP 4 - Replace the motor cover

- a. Replace the motor cover on the treadmill using button head cross screws (Z53) to secure it.
- b. In order to prevent the power cord from being pressed down when the treadmill elevates up and down, it is recommended to tie up the power cord to the motor cover (shown in the picture below).



### 8.3 ASSEMBLY INSTRUCTIONS - CONTINUED

**STEP 5 - FINAL ASSEMBLY** - Once the assembly is complete, follow the instructions in Sections 3.2 and 7.15 to test the treadmill for function.

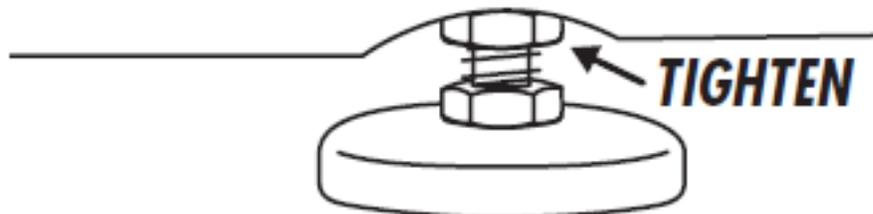
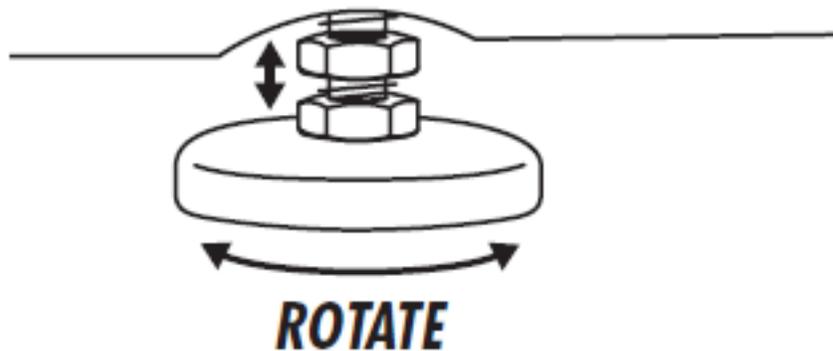


## 8.4 STABILIZING THE TREADMILL

### STABILIZING THE VISION FITNESS T60 TREADMILL

After positioning the Treadmill in its intended location, check its stability by attempting to shake it side to side. Shaking or wobbling indicates that your Treadmill needs to be leveled. A good way to test if the unit is level is to push on the console mast while standing on each side of the unit. If the rear foot lifts up off the floor more on one side than the other, an adjustment is needed.

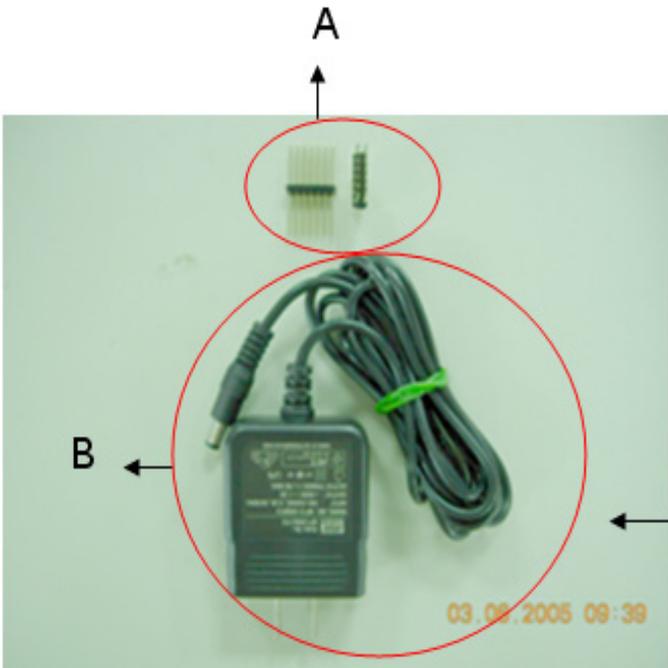
Determine which leveler is not resting completely on the floor. Loosen the nut with one hand to allow the leveler to rotate. Rotate the left or right leveler, and repeat the adjustment as necessary until the Treadmill is stable. Lock the adjustment by tightening the nut against the rear foot support.



## 9.1 SOFTWARE UPGRADE INSTRUCTIONS

### PARTS NEEDED:

1. MSP-FET430 Gang Programmer
2. Part # MTOOL-039
3. Software



A: 14 Pin      B: Power Supply Specification 8-15V 300MA



MSP-FET430 TOOLS

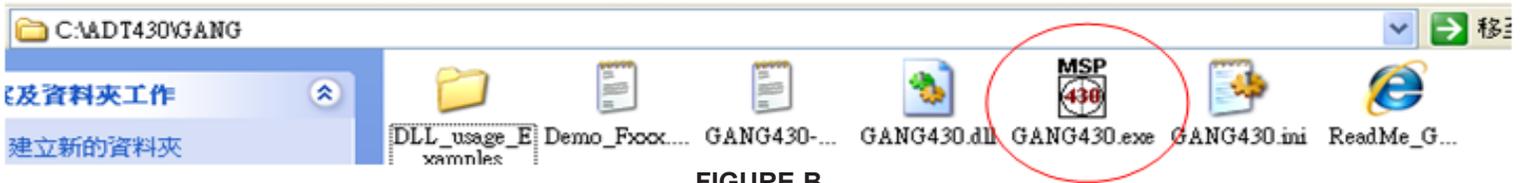
- 1) Connect the MSP-GANG430 hardware, PC, and console as shown in Figure A.



FIGURE A

## 9.1 SOFTWARE UPGRADE INSTRUCTIONS - CONTINUED

2) Click on the GANG430 icon located in the program group specified during installation of the software (the default group is ADT430). The MSP430 FLASH Gang Programmer GUI is shown in Figure B as displayed on the screen.

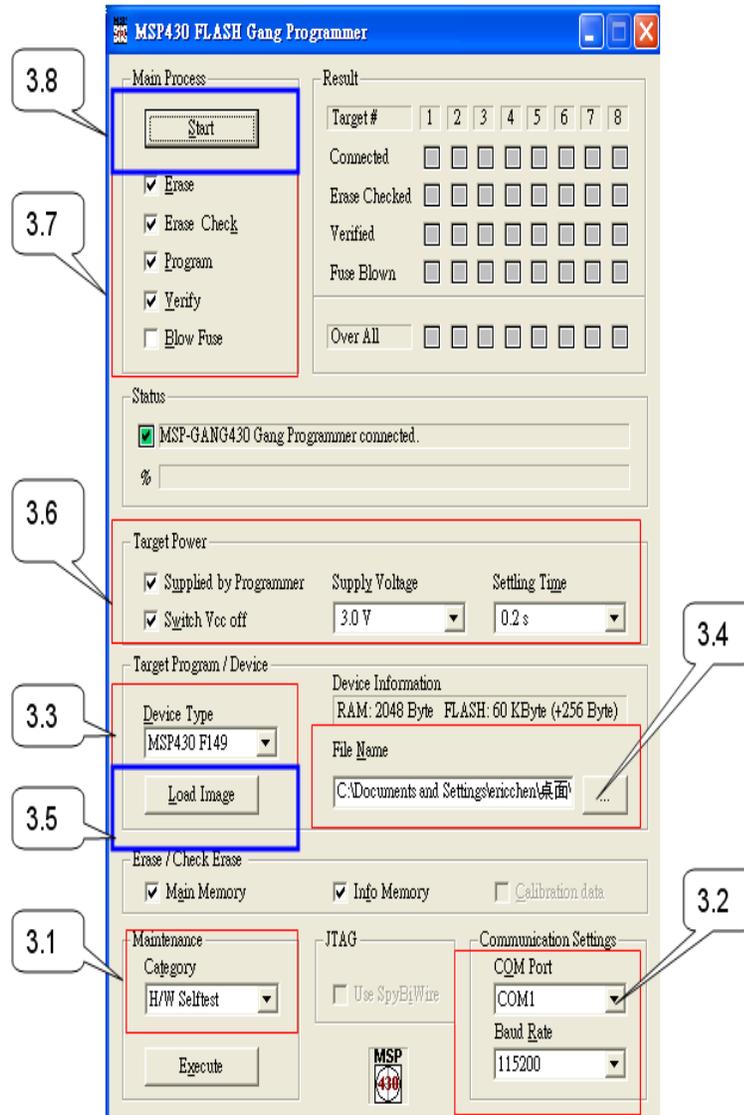


**FIGURE B**

The status message in the GUI displays the message "MSP-GAMG430 Gang Processor connected." If this message is not displayed, check the COM Port selection in the communication settings of the PC and the MSP-GANG430 connections.

3) Follow Steps 3.1 through 3.8 to set up the parameters as shown in Figure C.

- 3.1. Select the H/W Self Test function on the Maintenance Menu.
- 3.2. This selects the PC serial port used to communicate with the MSP-GANG430.
- 3.3. Select the required device using the Device Type Menu.
- 3.4. Select the console software file to be programmed into the MSP-GANG430 using the File Name Menu. The format that is supported for console software is TI TXT (.txt).
- 3.5. Use the Load Image Button to download the console software file to the MSP-GANG430 as shown in Figure A.
- 3.6. Select the supply voltage for the console from MSP-GANG430.
- 3.7. Select the options in Main Process as required.
- 3.8. When you install the first console, please connect MSP-GANG430 with the computer. Click on the Start button in the Main Process section to start the console install. The progress and completion of the operation are displayed in the Status section.



**FIGURE C**

## 9.1 SOFTWARE UPGRADE INSTRUCTIONS - CONTINUED

4) After the first console installation is finished, you can remove the RS232 cable from the PC to MSP-GANG430 as shown in Figure D. Upgrade the other consoles using MSP-GANG430 as shown in Figure E. Press the MSP430 Start button, the "MODE" LED will glitter for about 10 seconds. If the upgrade is complete, the OK green LED will light as shown in Figure F.

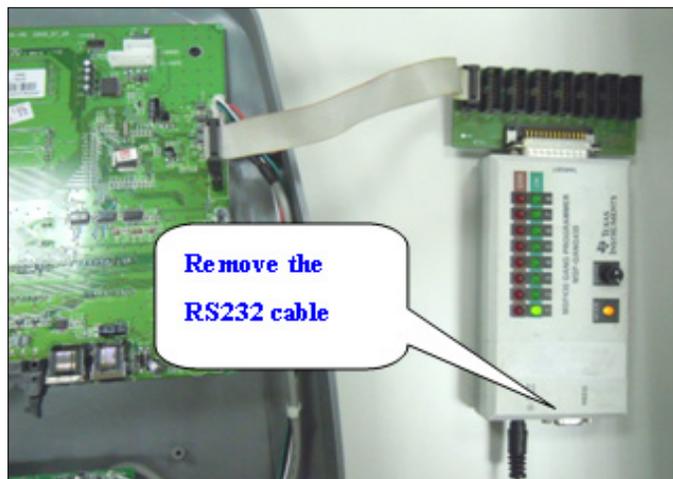


FIGURE D



FIGURE E

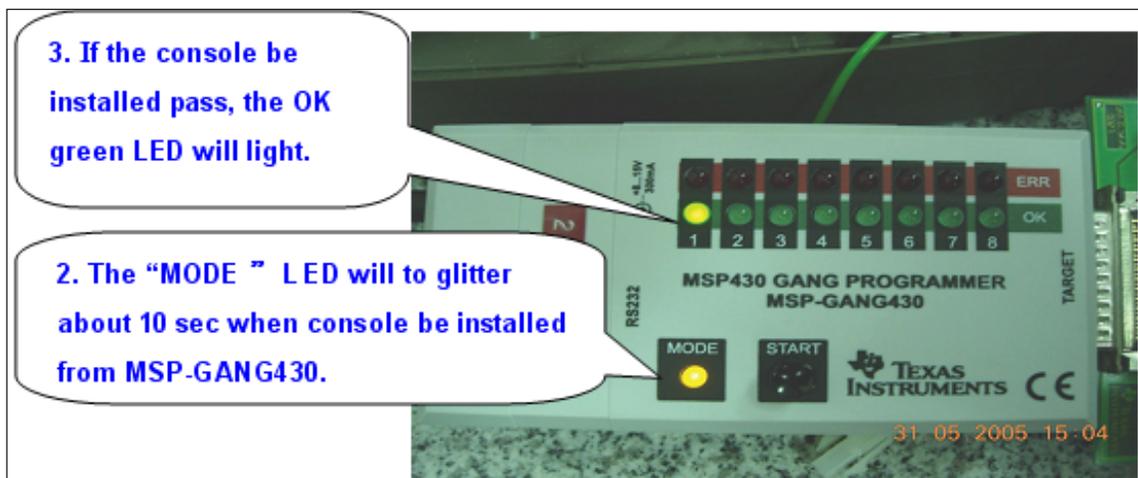


FIGURE F

5) Install the console to the frame. Then start the treadmill to provide power to the console. Enter into Manager Mode (see Section 5.1) to confirm that the software had been installed / upgraded correctly. Also check to make sure that the Machine Type is correct.  
 6) Test the treadmill for function as outlined in Section 7.15.

NOTES

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