



Strong. Smart. Beautiful.

T7XE-03 TREADMILL SERVICE MANUAL

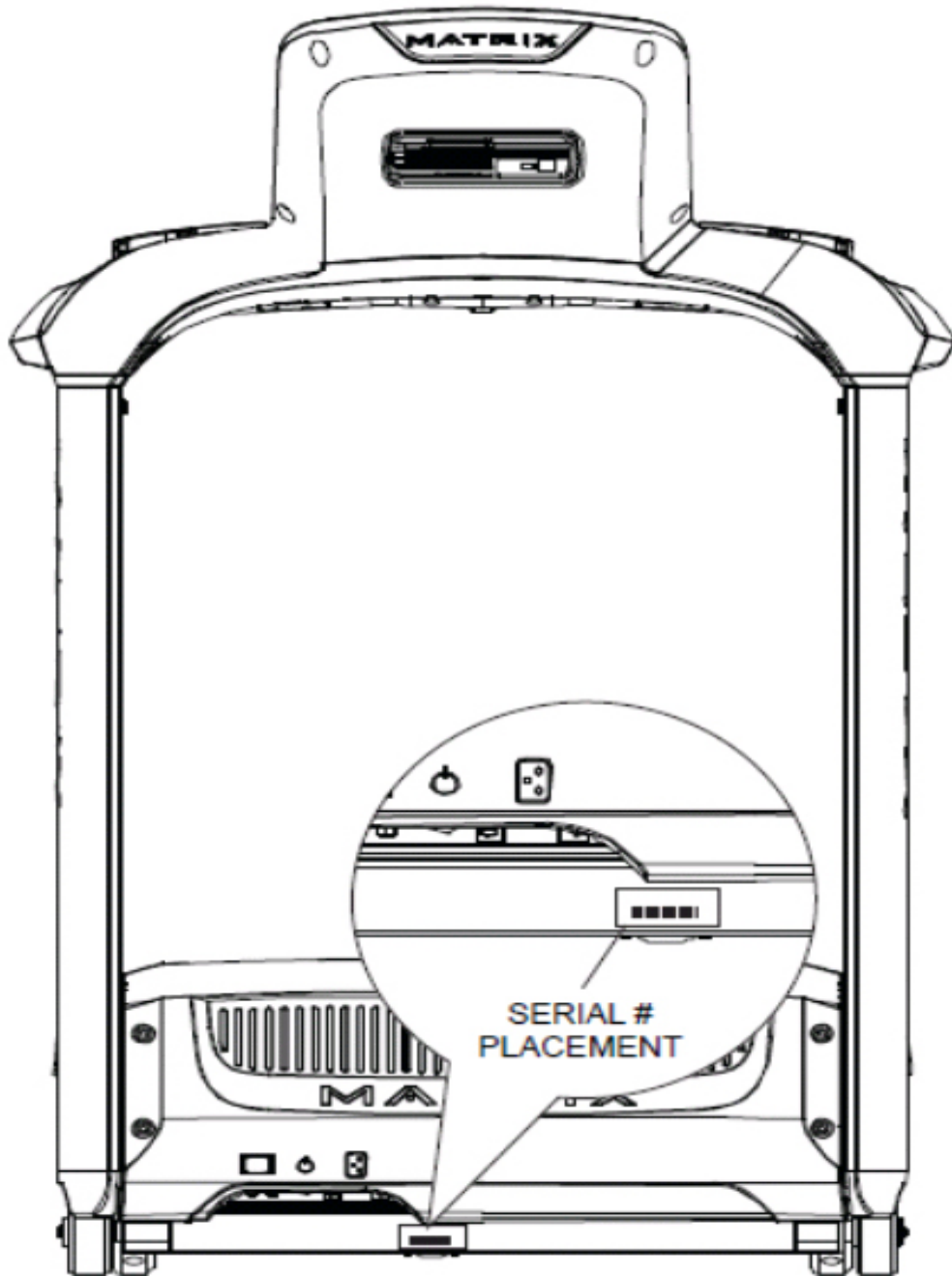
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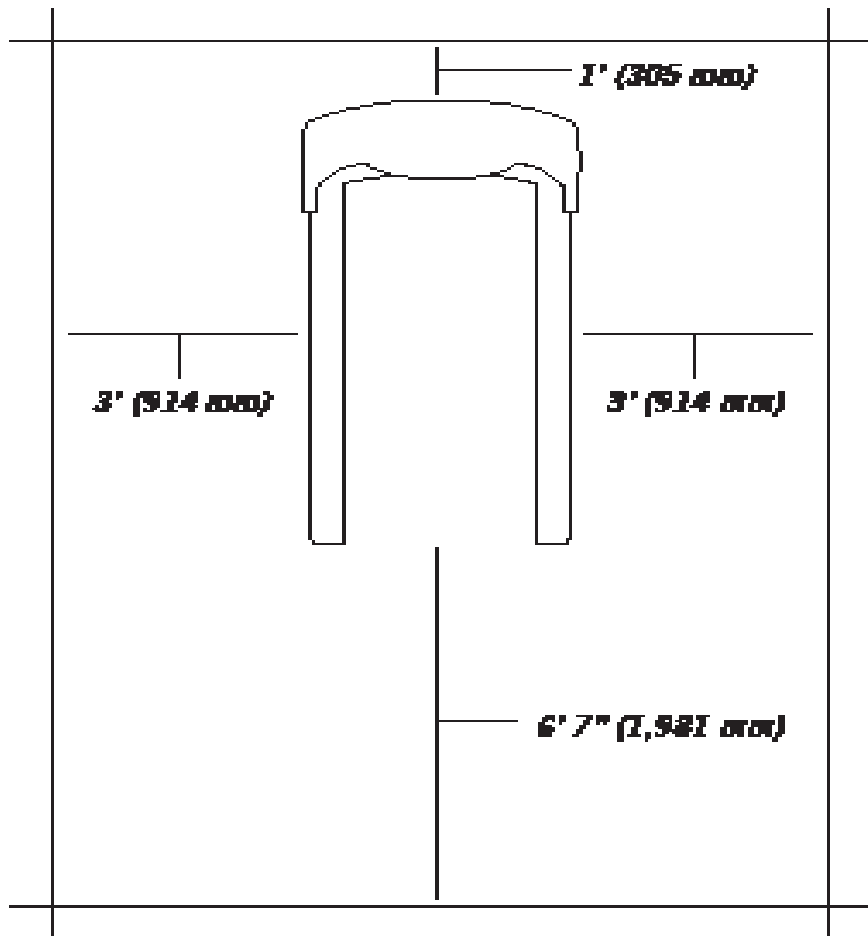
1.1 SERIAL NUMBER LOCATION



CHAPTER 2: IMPORTANT SAFETY INFORMATION

2.1 BEFORE GETTING STARTED

This treadmill is intended for commercial use. To ensure your safety and protect the equipment, read all instructions before operating the Matrix Treadmill.



Please leave a 78.75" (2000 mm) x 39.50" (1000 mm) landing zone behind the treadmill. This zone is to allow easy access to the treadmill and gives the user an easy exit path from the machine. In case of an emergency, place both hands on the side arm rests to hold yourself up and place your feet onto the side rails.

2.2 READ AND SAVE THESE INSTRUCTIONS

This treadmill is intended for commercial use. To ensure your safety and protect the equipment, read all instructions before operating the MATRIX T7x-03 treadmill.

When using an electrical product, basic precautions should always be followed including the following:

DANGER: To reduce the risk of electric shock: Always unplug this equipment from the electrical outlet immediately after using and before cleaning.

WARNING: To reduce the risk of burns, fire, electrical shock or injury to persons that may be associated with using this product.

An appliance should never be left unattended when plugged in. Unplug from the outlet when not in use and before putting on or taking off parts.

This product must be used for its intended purpose described in this service manual. Do not use other attachments that are not recommended by the manufacturer. Attachments may cause injury.

To prevent electrical shock, never drop or insert any object into any opening.

Do not remove the console covers. Service should only be done by an authorized service technician.

Never operate the treadmill with the air opening blocked. Keep the air opening clear, free of lint and hair.

Never operate product if it has a damaged cord or plug, if it is working improperly, if it has been damaged, or immersed in water.

Do not carry this unit by its supply cord or use the cord as a handle.

Keep any power cords away from heated surfaces.

Close supervision is necessary when the treadmill is used by or near children or disabled persons.

Do not use outdoors.

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

To disconnect, turn all controls to the off position, then remove the plug from the outlet.

Connect this treadmill to properly grounded outlets only.

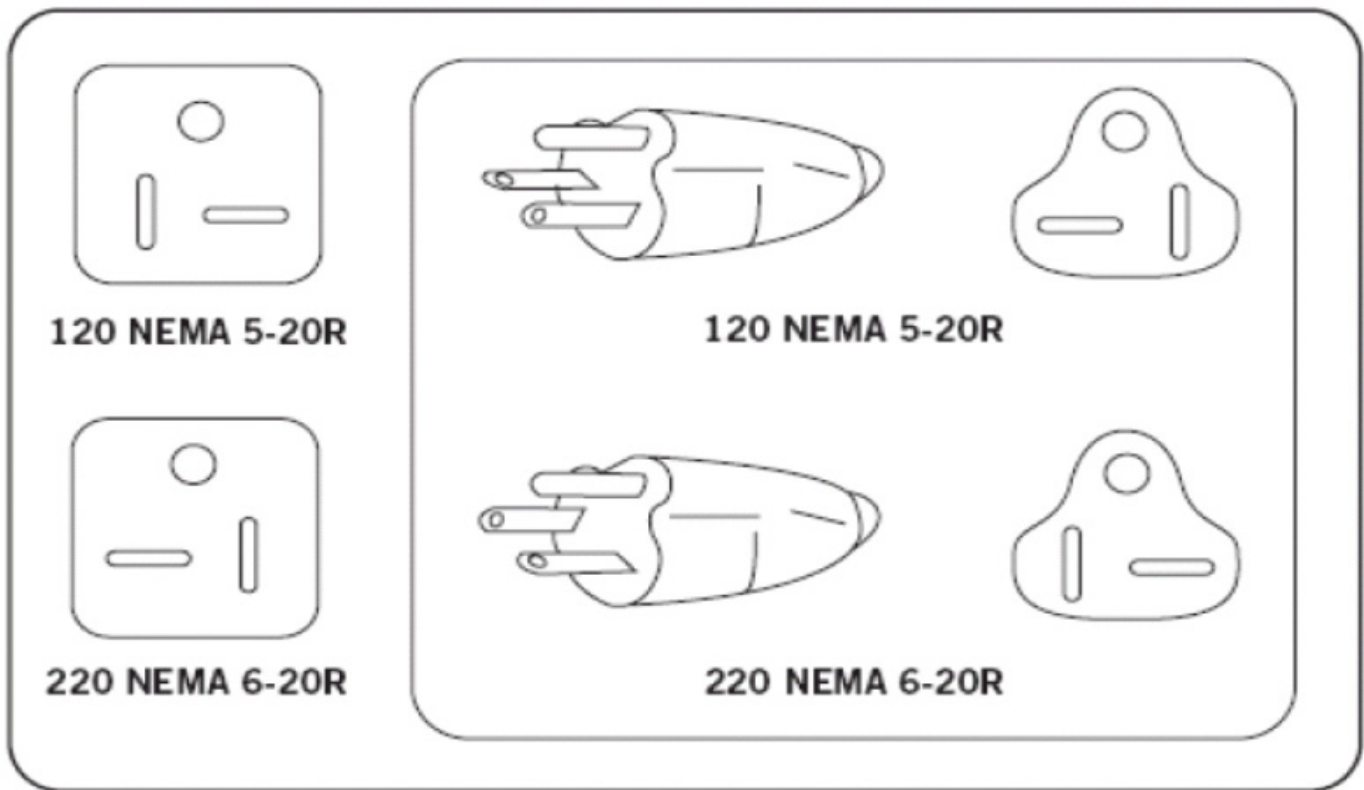
CAUTION: If you experience chest pain, nausea, dizziness or shortness of breath, STOP exercising immediately and consult a physician before continuing.

- Do not use the equipment in any way other than designed or intended by the manufacturer. It is imperative that all Matrix Fitness Systems equipment is used properly to avoid injury.
- Keep hands and feet clear of moving parts at all times to avoid injury.
- Unsupervised children must be kept away from this equipment.
- Do not wear loose clothing while on equipment.

CHAPTER 2: IMPORTANT SAFETY INFORMATION

2.3 ELECTRICAL REQUIREMENTS

For your safety and to ensure good treadmill performance, the ground on this circuit must be non-looped. Please refer to NEC article 210-21 and 210-23. Your treadmill is provided with a power cord with a plug listed below and requires the listed outlet. Any alterations of this power cord could void all warranties of this product..



MATRIX DEDICATED CIRCUIT / ELECTRICAL REQUIREMENT INFO

All Matrix treadmills require the use of a 20 amp "dedicated circuit", with a non-looped (isolated) neutral / ground, for the power requirement. Quite simply this means that each outlet you plug your treadmill into should not have anything else running on that same circuit. The easiest way to verify this is to locate the main circuit breaker box, and turn off the breaker(s) one at a time. Once a breaker has been turned off, the only thing that should not have power to it is the treadmill. No lamps, vending machines, fans, sound systems, or any other item should lose power when you perform this test.

Non-looped (isolated) neutral / grounding means that each circuit must have an individual neutral / ground connection coming from it, and terminating at an approved earth ground. You cannot "jumper" a single neutral / ground from one circuit to the next.

In addition to the dedicated circuit requirement, the proper gauge wire must be used from the circuit breaker box, to each outlet that will have the maximum number of units running off of it. If the distance from the circuit breaker box, to each outlet, is 100 feet or less, then 12 gauge wire may be used. For any distance greater than 100 feet from the circuit breaker box to the outlet, 10 gauge wire must be used.

3.1 RECOMMENDED CLEANING TIPS

Preventative maintenance and daily cleaning will prolong the life and look of your MATRIX treadmill.

Please read and follow these tips.

- Position the equipment away from direct sunlight. The intense UV light can cause discoloration on plastics.
- Locate your equipment in an area with cool temperatures and low humidity.
- Clean with a soft 100% cotton cloth.
- Clean with soap and water or other non-ammonia based all purpose cleaners.
- Wipe foot rails, console, heart rate grips, and handlebars clean after each use.
- Do not pour liquids directly onto your equipment. This can cause damage to the equipment and in some cases electrocution.
- Check running belt for proper tension and routing.
- Adjust leveling feet when equipment wobbles or rocks.
- Maintain a clean area around equipment, free from dust and dirt.

3.2 CHECK FOR DAMAGED PARTS

DO NOT use any equipment that is damaged or has worn or broken parts. Use only replacement parts supplied by Matrix Fitness Systems.

MAINTAIN LABELS AND NAMEPLATES. Do not remove labels for any reason. They contain important information. If unreadable or missing, contact Matrix Fitness Systems for a replacement at 866-693-4863 or www.matrixfitness.com.

MAINTAIN ALL EQUIPMENT. Preventative maintenance is the key to smoothly operating equipment. Equipment needs to be inspected at regular intervals. Defective components must be kept out of use until they are repaired. Ensure that any person(s) making adjustments or performing maintenance or repair of any kind is qualified to do so. Matrix Fitness Systems will provide service and maintenance training at our corporate facility upon request or in the field if proper arrangements are made.

CHAPTER 3: PREVENTATIVE MAINTENANCE

3.3 CARE AND MAINTENANCE INSTRUCTIONS

In order to maximize life span, and minimize down time, all Matrix Fitness System's equipment requires regular cleaning, and maintenance items performed on a scheduled basis. This section contains detailed instructions on how to perform these items, the frequency of which they should be done, and a check list to sign off on each time service is completed for a specific machine. Some basic tools and supplies will be necessary to perform these tasks which include (but may not be limited to):

- * Metric Allen wrenches
- * #2 Phillips head screwdriver
- * Adjustable wrench
- * Torque wrench (capability to read foot lbs and inch lbs)
- * Lint free cleaning cloths
- * Teflon based spray lubricant such as "Super Lube" or other Matrix approved products.
- * Mild water soluble detergent such as "Simple Green" or other Matrix approved products
- * Vacuum cleaner with an extendable hose and crevasse tool attachment.

You may periodically see addendums to this document, as the Matrix Technical Support Team identifies items that require specific attention, the latest version will always be available on the Matrix web site at www.matrixfitness.com.

DAILY MAINTENANCE ITEMS

- 1) Clean the entire machine using water and mild detergent such as "Simple Green", or other Matrix approved solutions (cleaning agents MUST be alcohol and ammonia free) including the console, handlebar / grip area, and running belt. Spray cleaner onto a cloth to clean. NEVER spray cleaner directly on equipment.
- 2) Check the emergency stop button and safety cord for proper operation.

WEEKLY MAINTENANCE ITEMS

- 1) Vacuum the dust from the running deck and belt as well as the fan vent located in the front of the unit. Vacuuming dust from the belt and deck will help reduce the amount of dust that will collect under the belt causing possible issues with the wax.

MONTHLY MAINTENANCE ITEMS

- 1) Inspect the power cord for damage, inspect hand grip areas, and inspect the emergency stop button and cord for proper operation.
- 2) Check the running belt for proper tension, adjust as needed as outlined in Section 3.5.
- 3) Check that the power cord bracket is securely fastened and has not moved.

QUARTERLY MAINTENANCE ITEMS

- 1) Remove the front plastic cover, and vacuum the motor area of machine. Be careful when working around the MCB not to bump any wires or connections loose. Also move the unit and vacuum beneath it to prevent dust and dirt build up that can affect performance.
- 2) Check the drive belt for visible wear, ie, cracking, tears, etc. The belt should be replaced if there are any visible signs of damage. Proper alignment of the pulley / tensioner should be verified at this time as well.
- 3) Remove the plastic shroud at the front of the machine. Start the unit and raise incline settings to maximum height. Turn the power switch off at the front of the machine to prevent it from lowering accidentally. Lubricate incline motor Acme screw (Matrix recommends Super Lube brand grease with PTFE additive).

BI-ANNUAL MAINTENANCE ITEMS

- 1) Remove wax build up from the front and rear rollers of the machine (a plastic paint scraper / putty knife or a credit card work the best).
- 2) Inspect the underside of the running belt for damage, check for cracking or glazed surfaces.
- 3) If the belt has damage or wear to it that warrants replacement, note that the running deck must also be flipped when a new belt is installed. If the deck has previously been flipped and no longer has an unused side available, it needs to be replaced when the new belt is installed. A new belt must ALWAYS be installed to run on a new deck surface in order to maximize the lifespan of both items.
- 4) During normal operating conditions, the running belt replacement and deck service should be done every 20,000 miles.

3.4 TOUCH SCREEN CARE & CLEANING

TOUCH SCREEN CARE AND CLEANING

- * The touch screen requires very little maintenance. We recommend that you periodically clean the touch screen surface with a dry soft cloth. If necessary, we recommend the usage of Alcohol or Isopropyl Alcohol for difficult stains or sanitary purposes.
- * It is very important to avoid using any other chemical on the touch screen.
- * Always dampen the cloth and clean the screen. Do not spray the cleaning agent on the screen itself, the drips can seep into the display or stain the bezel.
- * After cleaning, make sure the surface is dry. There should not be any left over solvent to seep into the display.
- * It is very important to handle the touch screen with care. Do not use excessive force when cleaning.
- * Do not use any sharp materials to clean the touch screen surfaces.
- * Do not use high pressure air, water, or steam to clean the touch screen surface.

3.5 AUTO CALIBRATION INSTRUCTIONS

Run Auto Calibration to calibrate incline after assembly and after replacing any electronic component.

AUTO CALIBRATION PROCEDURE:

- 1) Press "ENTER, 2, 0, 0, 1, ENTER". Engineering Mode will appear on the display.
- 2) CALIBRATION and AUTO CALIBRATION should be already highlighted. You just need to press the START button (Figure A). You SHOULD NOT be standing on the unit while it is calibrating.
- 3) After completion, the display will state either Complete or Auto Calibration failed.



3.6 ADJUSTING THE RUNNING BELT

After placing the treadmill in the position it will be used, the belt must be checked for proper tension and centering. The belt may need to be adjusted after the first 2 hours of use. Temperature, humidity, and use cause the belt to stretch at different rates. If the belt starts to slip when a user is on it, be sure to follow the directions below.

STEP 1: Locate the two hex head bolts on the rear of the treadmill. The bolts are located at each end of the frame at the back of the treadmill. These bolts adjust the rear roller. Do not adjust until the treadmill is on. This will prevent over tightening of one side.

STEP 2: The belt should have equal distance on either side between the frame. If the belt is touching one side, do not start the treadmill. Turn the bolts counter clockwise approximately one full turn on each side. Manually center the belt by pushing the belt from side to side. Tighten the bolts the same amount as when the user loosened them, approximately one full turn. Inspect the belt for damage.

STEP 3: While the treadmill is running at 3 mph, observe the belt position. If it is moving to the right, tighten the right bolt by turning it clockwise 1/4 turn, and loosen the left bolt 1/4 turn. If it is moving to the left, tighten the left bolt by turning it clockwise 1/4 turn and loosen the right 1/4 turn. Repeat Step 3 until the belt remains centered for several minutes.

STEP 4: 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 bolts clockwise 1/4 turn. Repeat if necessary.

4.1 T7XE-03 CONSOLE DESCRIPTION

The Matrix treadmill is inspected before it is packaged. It is shipped in four pieces: the base, the upright console supports, the handlebar, and the console. Carefully unpack the unit and dispose of the box material.



The T7xe-03 has a fully integrated touch screen display. All information required for workouts is explained on screen. Exploration of the interface is highly encouraged. The information explaining how to program for various workouts will give an explanation about the contents of each screen on the T7xe-03.

QUICK START / GO: One touch Start and Quick Start.

STOP: Ends workout and shows workout summary data.

COOL DOWN: Puts treadmill into Cool Down mode. Cool Down time is dependent on the length of the workout. Workouts 19 minutes and shorter will have a cool down length of 2 minutes. Workouts 20 minutes and longer will have a cool down length of 5 minutes.

EMERGENCY STOP / IMMOBILIZATION: To stop all functions and immobilize the unit. The emergency stop on this treadmill must be returned to its original position in order to allow normal operation of the unit.

T7XE ENTERTAINMENT ZONE

IPOD: Will take the user directly to the iPod screen to allow for iPod control and play list selection.

VOLUME UP / DOWN: Adjust the volume output through the headphone jack of either the integrated console TV or the iPod output.

NUMBER KEYPAD: Allows for easy TV channel selections. These buttons work for the integrated console TV.

CHANNEL UP / DOWN: Allows for channel selection on the integrated console TV.

DISPLAY MODE: Allows user to cycle through console display options, iPod, TV, or profile display.

LAST CHANNEL: Allows the user to cycle between the current channel and the previous channel they were viewing.

4.2 MANUAL WORKOUT OPERATION

QUICK START OPERATION

Press the GO or QUICK START button(s) and the treadmill will count down "3, 2, 1" and enter into a manual mode of operation. All energy expenditure values will be calculated using the default weight measurement.

MANUAL WORKOUT OPERATION

Manual is a workout that allows you to manually adjust the speed and incline values at anytime. The manual workout also contains a setup screen which allows you to input your weight to help calculate a more accurate caloric burn rate.

To enter into the Manual Workout:

- 1) Choose MANUAL WORKOUT by selecting the manual workout button.
- 2) Enter the desired workout time using the ARROW KEYS or the SLIDER.
- 3) Enter the user's weight (the user's weight is used to calculate the caloric expenditure value-providing an accurate weight helps to ensure an accurate caloric expenditure rating for each user) using the ARROW KEYS or the SLIDER.
- 4) Enter the desired start speed using the ARROW KEYS or the SLIDER.
- 5) Press GO or QUICK START to begin the workout.

4.3 OPERATING LEVEL BASED PROGRAMS

Your Matrix treadmill offers a variety of level-based workouts to challenge users of all fitness levels. The following information will briefly explain the workout and how to program the treadmill for each workout selection.

ROLLING HILLS WORKOUT OPERATION

Rolling Hills is a level based workout that automatically adjusts the incline value to simulate walking or running up hills.

- 1) Choose ROLLING HILLS by selecting the rolling hills workout button.
- 2) Enter the desired workout time using the ARROW KEYS or the SLIDER.
- 3) Enter the desired workout level using the ARROW KEYS or the SLIDER.
- 4) Enter the user's weight (the user's weight is used to calculate the caloric expenditure value, providing an accurate weight helps to ensure an accurate caloric expenditure rating for each user) using the ARROW KEYS or the SLIDER.
- 5) Enter the desired start speed using the ARROW KEYS or the SLIDER.
- 6) Press GO or QUICK START to begin the workout.

FAT BURN WORKOUT OPERATION

Fat Burn is a level-based workout that is designed to help users burn fat through various incline changes.

- 1) Choose FAT BURN by selecting the fat burn workout button.
- 2) Enter the desired workout time using the ARROW KEYS or the SLIDER.
- 3) Enter the desired workout level using the ARROW KEYS or the SLIDER.
- 4) Enter the user's weight (the user's weight is used to calculate the caloric expenditure value, providing an accurate weight helps to ensure an accurate caloric expenditure rating for each user) using the ARROW KEYS or the SLIDER.
- 5) Enter the desired start speed using the ARROW KEYS or the SLIDER.
- 6) Press GO or QUICK START to begin the workout.

5K RUN WORKOUT OPERATION

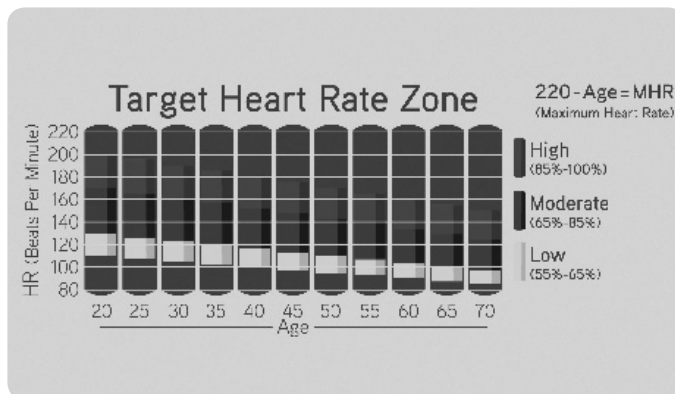
5K Run is a workout with a fixed distance of 5 km. Incline is adjusted automatically throughout the workout. You control the speed.

- 1) Choose 5K RUN by selecting the 5k run workout button.
- 2) Enter the desired workout level using the ARROW KEYS or the SLIDER.
- 3) Enter the user's weight (the user's weight is used to calculate the caloric expenditure value, providing an accurate weight helps to ensure an accurate caloric expenditure rating for each user) using the ARROW KEYS or the SLIDER.
- 4) Enter the desired start speed using the ARROW KEYS or the SLIDER.
- 5) Press GO or QUICK START to begin the workout.

4.4 HEART RATE CONTROL WORKOUT OPERATION

Your Matrix treadmill offers a heart rate control workout mode. The heart rate control workout mode allows the user to program their desired heart rate zone and maximum allowable incline and the treadmill will automatically adjust the incline based upon the user's heart rate. The heart rate zone is calculated using the following equation: $(220 - \text{Age}) * \% = \text{target heart rate zone}$. The user must wear a telemetric heart rate monitor or continually hold onto the contact heart rate grips for this workout.

- 1) Choose TARGET HEART RATE by selecting the target heart rate workout button.
- 2) Enter the desired workout time using the ARROW KEYS or the SLIDER.
- 3) Enter the user's age using the ARROW KEYS or the SLIDER.
- 3) Enter the desired percentage of maximum heart rate using the ARROW KEYS or the SLIDER.
- 4) Enter the user's weight (the user's weight is used to calculate the caloric expenditure value, providing an accurate weight helps to ensure an accurate caloric expenditure rating for each user) using the ARROW KEYS or the SLIDER.
- 5) Press GO or QUICK START to begin the workout.



4.5 FITNESS TEST WORKOUT OPERATION

Your Matrix treadmill offers a variety of fitness tests - the Gerkin Firefighter Protocol, the Army, Navy, USMC, and USAF as well as the Physical Efficiency Battery (PEB).

The Gerkin 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 United States 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. The workout operates as follows:

WARM UP: The warm up is 3 minutes long and runs at 3.0 mph (4.8 kph) and 0% incline.

STAGE 1: At the 3 minute mark, the treadmill will gradually increase speed to 4.5 mph (7.2 kph). The actual test begins at 4.5 mph (7.2 kph).

STAGE 2: After one minute, the treadmill incline will increase to 2%.

STAGE 3: After one minute, the treadmill speed increases to 5.0 mph (8.0 kph).

STAGES 4 THROUGH 11: After every odd minute the treadmill incline will increase by 2%. After every even minute the treadmill speed will increase by 0.5 mph (0.8 kph). Once the user's heart rate exceeds the target heart rate (85% of maximum as determined by the equation $(220 - \text{Age}) * \% = \text{target heart rate zone}$), the individual continues the evaluation for an additional 15 seconds. During the 15 second period, the evaluation remains at the stage where the target heart rate is exceeded, without any change to speed or incline. If the heart rate does not return to or below the target heart rate, the evaluation ends and the final evaluation stage is recorded. If the heart rate returns to or below the target heart rate, the program continues at the point where it would have been had the program not stabilized for 15 seconds.

TEST COMPLETION: The test is completed when user's heart rate exceeds the target for more than 15 seconds or when the user completes all 11 stages, whichever occurs first. The treadmill will enter a cool down cycle for 3 minutes at 3.0 mph (4.8 kph), 0% incline.

- 1) Choose the GERKIN TEST by pressing the fitness test workout button and then press the GERKIN button.
- 2) Enter the user's age using the ARROW KEYS or the SLIDER.
- 3) Enter the user's weight (the user's weight is used to calculate the caloric expenditure value, providing an accurate weight helps to ensure an accurate caloric expenditure rating for each user) using the ARROW KEYS or the SLIDER.
- 4) Enter the user's gender by pressing the MALE or FEMALE button.
- 5) Press GO or QUICK START to begin the workout.

4.5 FITNESS TEST WORKOUT OPERATION - CONTINUED

SUBMAXIMAL TREADMILL EVALUATION CONVERSION TABLE

Stage	Time	Converted VO2max
1	1:00	31.15
2.1	1:15	32.55
2.2	1:30	33.6
2.3	1:45	34.65
2.4	2:00	35.35
3.1	2:15	37.45
3.2	2:30	39.55
3.3	2:45	41.3
3.4	3:00	43.4
4.1	3:15	44.1
4.2	3:30	45.15
4.3	3:45	46.2
4.4	4:00	47.5
5.1	4:15	48.6
5.2	4:30	50
5.3	4:45	51.4
5.4	5:00	52.8
6.1	5:15	53.9
6.2	5:30	54.9
6.3	5:45	56
6.4	6:00	57
7.1	6:15	57.7
7.2	6:30	58.8
7.3	6:45	60.2
7.4	7:00	61.2
8.1	7:15	62.3
8.2	7:30	63.3
8.3	7:45	64
8.4	8:00	65
9.1	8:15	66.5
9.2	8:30	68.2
9.3	8:45	69
9.4	9:00	70.7
10.1	9:15	72.1
10.2	9:30	73.1
10.3	9:45	73.8
10.4	10:00	74.9
11.1	10:15	76.3
11.2	10:30	77.7
11.3	10:45	79.1
11.4	11:00	80

CARDIOVASCULAR FITNESS PERCENTILES

Males:	VO2 max (ml/kg/min)			
	0-29	30-39	40-49	50-59
SUPERIOR	>58.8	>58.9	>55.4	>52.5
	54.0	52.5	50.4	47.1
EXCEL- LENT	51.4	50.3	48.2	45.3
	48.2	46.8	44.1	41.0
GOOD	46.8	44.6	41.8	38.5
	44.2	42.4	39.9	36.7
FAIR	42.5	41.0	38.1	35.2
	41.0	38.9	36.7	33.8
POOR	39.5	37.4	35.1	32.3
	37.1	35.4	33.0	30.2
VERY POOR	34.5	32.5	30.9	28.0
	31.6	30.9	28.3	25.1

Females:	VO2 max (ml/kg/min)			
	20-29	30-39	40-49	50-59
SUPERIOR	>53.0	>48.7	>46.8	>42.0
	46.8	43.9	41.0	36.8
EXCEL- LENT	44.2	41.0	39.5	35.2
	41.0	38.6	36.3	32.3
GOOD	38.1	36.7	33.8	30.9
	36.7	34.6	32.3	29.4
FAIR	35.2	33.8	30.9	28.2
	33.8	32.3	29.5	26.9
POOR	32.3	30.5	28.3	25.5
	30.6	28.7	26.5	24.3
VERY POOR	28.3	26.5	25.1	22.3
	25.9	25.1	23.5	21.1

The Military Test programs and the Physical Efficiency Battery (PEB) provide workouts of a preset distance. These distances are established by the various branches of the Military with the objective of each test to complete the distance as quickly as possible. At the completion of the test, a time-based score as defined by the respective Military branch will be shown on the console.

- 1) Choose your desired Military Test by pressing the FITNESS TEST WORKOUT button, and then press the desired MILITARY TEST or PEB button.
- 2) Enter the user's age using the ARROW KEYS or the SLIDER.
- 3) Enter the user's weight (the user's weight is used to calculate the caloric expenditure value, providing an accurate weight helps to ensure an accurate caloric expenditure rating for each user) using the ARROW KEYS or the SLIDER.
- 4) Enter the user's gender using the MALE and FEMALE buttons.
- 5) Press GO or QUICK START to begin the workout.

5.1 USING MANAGER MODE



- 1) To enter Manager Mode, press "ENTER 1001 ENTER" on the number keypad and **Manager Mode** will appear on the display.
- 2) Manager Mode is divided into 6 tabs, located on the left side of the screen. They are About, Time, Speed, Defaults, TV, and Language.
- 3) Choose a tab by touching the screen over the desired tab.
- 4) Each of the tabs have options that will appear once you have chosen that particular tab.
- 5) Press the "**HOME**" button or the **EMERGENCY STOP** to exit Manager Mode..

CHAPTER 5: MANAGER MODE

5.2 MANAGER MODE - TAB 1



T7xe-02-C - If the unit has the old MMM board, the CSafe Model should be set for Off.

T7xe-03-C - If the unit has the LMM board, the CSafe Model should be set for On.

MANAGER MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
About	Serial Number	This option displays the serial number of the platform and console, not editable (see Service Mode to change serial numbers).	Cannot be modified.
	Accumulated Distance	Total distance displayed in native units (miles or kilometers), not editable.	Cannot be modified
	Accumulated Time	Total time, not editable.	Cannot be modified.
	Software Version	Software version, not editable	Cannot be modified
	Out of Order Default: Off	This option allows the club to show "out of order" on the console before repair.	On / Off
	CSafe Model	This option controls whether the console is Fitlinxx compatible.	On / Off

CHAPTER 5: MANAGER MODE

5.3 MANAGER MODE - TAB 2



MANAGER MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
Time	Maximum Time Default: 60 Minutes	This option enables clubs to set the maximum workout duration limits during peak and non peak hours of traffic.	Maximum: 99 Minutes Minimum: 5 Minutes
	Default Time Default: 30 Minutes	This option controls the default program time.	Maximum: Maximum Time Minimum: 5 Minutes
	Pause Time Default: 5 Minutes	This option controls the default pause time.	Maximum: 10 Minutes Minimum: 1 Minute

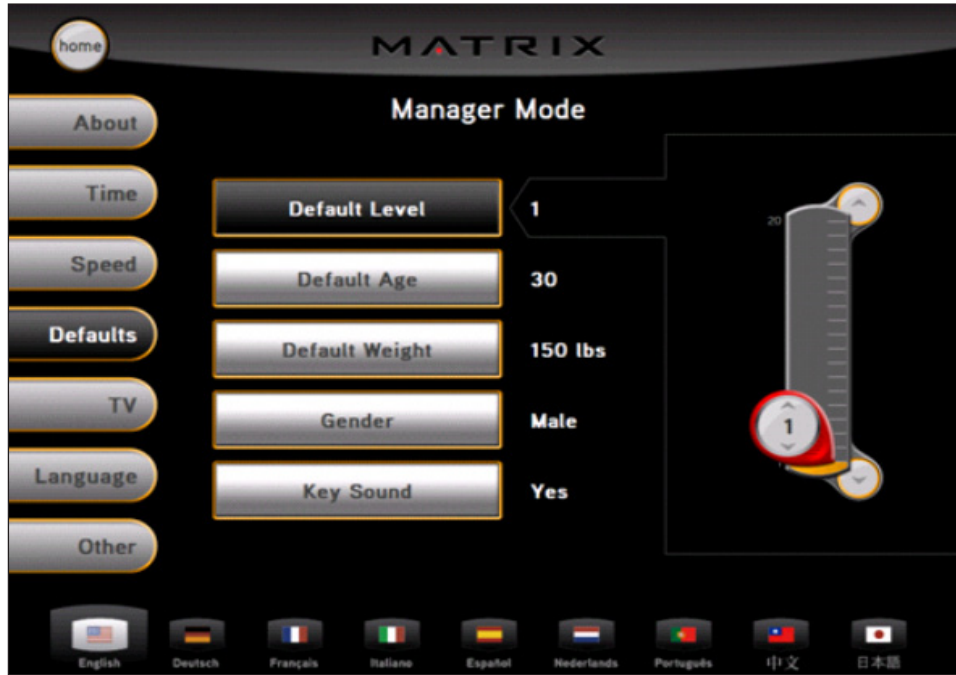
5.4 MANAGER MODE - TAB 3



MANAGER MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
Speed	Maximum Speed Default: 12 MPH / 19.3 KPH	This option controls the maximum speed for all programs. Displayed in native units (miles or kilometers).	Maximum: 15 MPH / 24.1 KPH Minimum: 0.5 MPH / 0.8 KPH
	Start Speed Default: 0.5 MPH / 0.8 KPH	This option controls the starting speed for all programs (minimum speed not affected). Displayed in native units (miles or kilometers).	Maximum: 1.4 MPH / 2.3 KPH Minimum: 0.5 MPH / 0.8 KPH

CHAPTER 5: MANAGER MODE

5.5 MANAGER MODE - TAB 4



MANAGER MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
Defaults	Default Level Default: 1	This option controls the default program levels.	Maximum: 20 Minimum: 1
	Default Age Default: 30	This option controls the default user's age used in the target heart rate calculations.	Maximum: 100 Minimum: 10
	Default Weight Default: 150 lb / 68 kg	This option controls the default weight used in the calorie calculations. Displayed in native units (pounds or kilograms).	Maximum: 400 lb / 180 kg Minimum: 50 lb / 22 kg
	Gender Default: Male	This option sets the user's gender as either male or female.	Male or Female
	Key Sound Default: On	This option can set the keypad tone to sound or not sound.	ON or OFF

5.6 MANAGER MODE - TAB 5



MANAGER MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
TV	Default Channel Default: 3	This option controls the default TV channel on start up.	Maximum: 99 Minimum: 1
	Default Volume Default: 5	This option controls the default TV volume on start up.	Maximum: 17 Minimum: 0
	Tuner Available Default: Yes	This option controls the default TV function. If NO is selected, the TV tab will be removed from the normal function.	YES or NO
	Setup	This option is for setting the TV tuner functions. Press the "-" key on the NUMBER KEYPAD to enter this function.	N/A

CHAPTER 5: MANAGER MODE

5.7 MANAGER MODE - TAB 6



MANAGER MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
Language	Default Language	This option allow the user to select the flag for the specific language shown on the display.	N/A

LANGUAGE	FLAG	UNIT
ENGLISH		MILE
		MILE
		KM
GERMAN		KM
		KM
SPANISH		KM
		KM

LANGUAGE	FLAG	UNIT
CHINESE		KM
		KM
PORTUGUESE		KM
		KM
FRENCH		KM
DUTCH		KM
ITALIAN		KM
JAPANESE		KM

5.8 MANAGER MODE - TAB 7



MANAGER MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
Other	Altitude Default: 5000 ft	This option controls the default altitude used in the fitness test score calculations.	
	Asset Management Default: Off	This option allows the fitness club to collect the machine data to a PC server.	ON or OFF
	Virtual Active Default: ON	This option controls the Virtual Active function.	ON
	Belt Stop Default: Off	This option is to check the running belt to see if a user is there. If there is no user, and the status is over the default time, the machine will enter into a pause mode for 5 minutes. If no user is present within 5 minutes, the display will return to the start up screen.	OFF, 30, 60, or 90

CHAPTER 6: ENGINEERING MODE

6.1 USING ENGINEERING MODE



- 1) To enter Engineering Mode, press "ENTER 2001 ENTER" on the number keypad and **Engineering Mode** will appear on the display.
- 2) Engineering Mode is divided into 5 tabs, located on the left side of the screen. They are Calibration, Statistics, Errors, Clubs, and Club ID.
- 3) Choose a tab by touching the screen over the desired tab.
- 4) Each of the tabs have options that will appear once you have chosen that particular tab.
- 5) Press the **"HOME"** button or the **EMERGENCY STOP** to exit Engineering Mode..

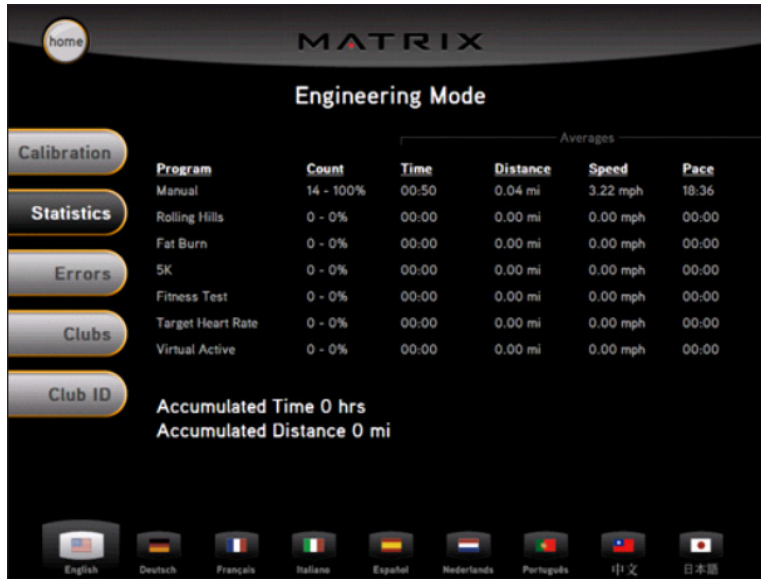
6.2 ENGINEERING MODE - TAB 1



ENGINEERING MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
Calibration	Auto Calibration	This option is to calibrate the elevation parameters.	N/A
	Manual Cal Elevation Minimum Default: 4000	This option controls the minimum elevation parameter.	Range: 2500-12000
	Manual Cal Elevation Maximum Default: 29000	This option controls the maximum elevation parameter.	Range: 25000-32700

CHAPTER 6: ENGINEERING MODE

6.3 ENGINEERING MODE - TAB 2



ENGINEERING MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
	Statistics	This option displays workout information for the various programs.	N/A

6.4 ENGINEERING MODE - TAB 3



ENGINEERING MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
	Errors	This option displays the error code history on the treadmill.	N/A

CHAPTER 6: ENGINEERING MODE

6.5 ENGINEERING MODE - TAB 4



ENGINEERING MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
	Clubs Default: MATRIX	This option allows the user to select the screen header from a list.	N/A

6.6 ENGINEERING MODE - TAB 5



ENGINEERING MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
	Club ID	This option records the club ID of the fitness facility.	N/A

7.1 USING SERVICE MODE



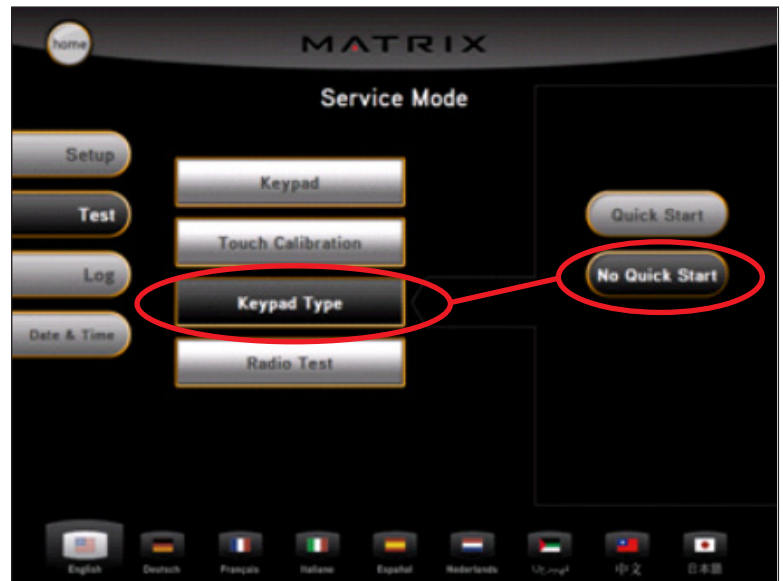
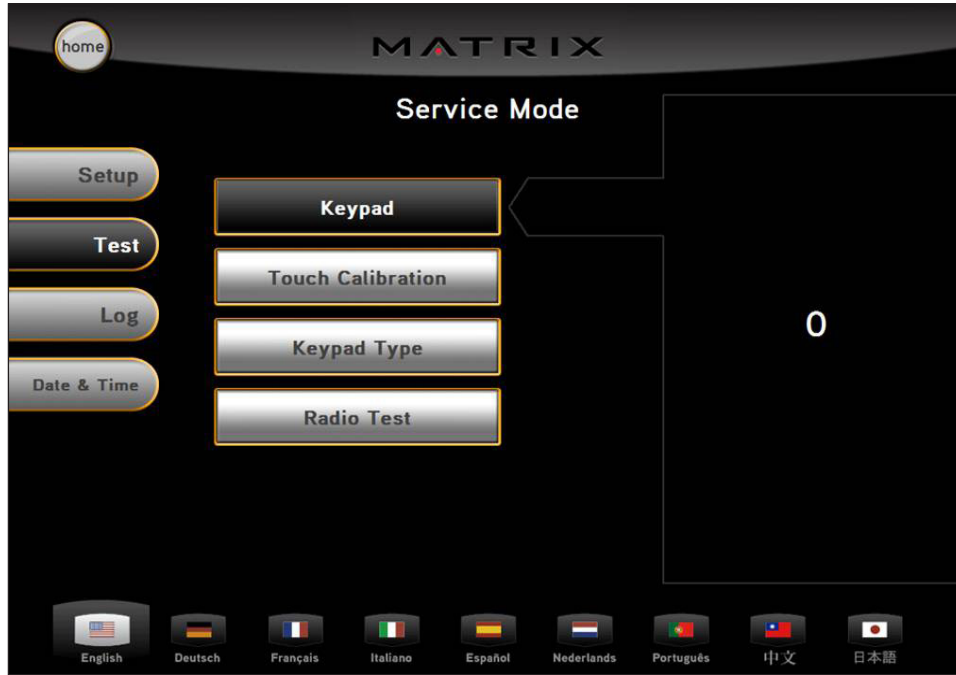
- 1) To enter Service Mode, press "ENTER 3001 ENTER" on the number keypad and **Service Mode** will appear on the display.
- 2) Service Mode is divided into 4 tabs, located on the left side of the screen. They are Setup, Test, Log, and Date & Time.
- 3) Choose a tab by touching the screen over the desired tab.
- 4) Each of the tabs have options that will appear once you have chosen that particular tab.
- 5) Press the **"HOME"** button or the **EMERGENCY STOP** to exit Service Mode..

7.2 SERVICE MODE - TAB 1



SERVICE MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
Setup	Machine Type Default: Treadmill	This option is to select the current model.	N/A
	Serial Number	This option displays the serial number of the console and frame.	N/A
	Accumulated Distance	Total distance displayed in native units (miles or kilometers), not editable.	N/A
	Accumulated Time	Total time, not editable.	N/A
	Show Service on Boot	Factory Setting Only	N/A

7.3 SERVICE MODE - TAB 2



SERVICE MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
Test	Keypad	This option is for a keypad test.	N/A
	Touch Calibration	This option allows for a touch calibration of the console. Follow the cross mark and touch the screen to catch. After 5 positions are tested, touch the center of the screen to exit this test.	N/A
	Keypad Type Default: No Quick Start	This option sets the type of keypad for the treadmill. It should always be set for NO Quick Start on treadmills.	Quick Start or No Quick Start
	Radio Test	This option will test the radio signal for function.	N/A

7.4 SERVICE MODE - TAB 3



SERVICE MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
	Log	This option allows the club to record key components replacement history.	N/A

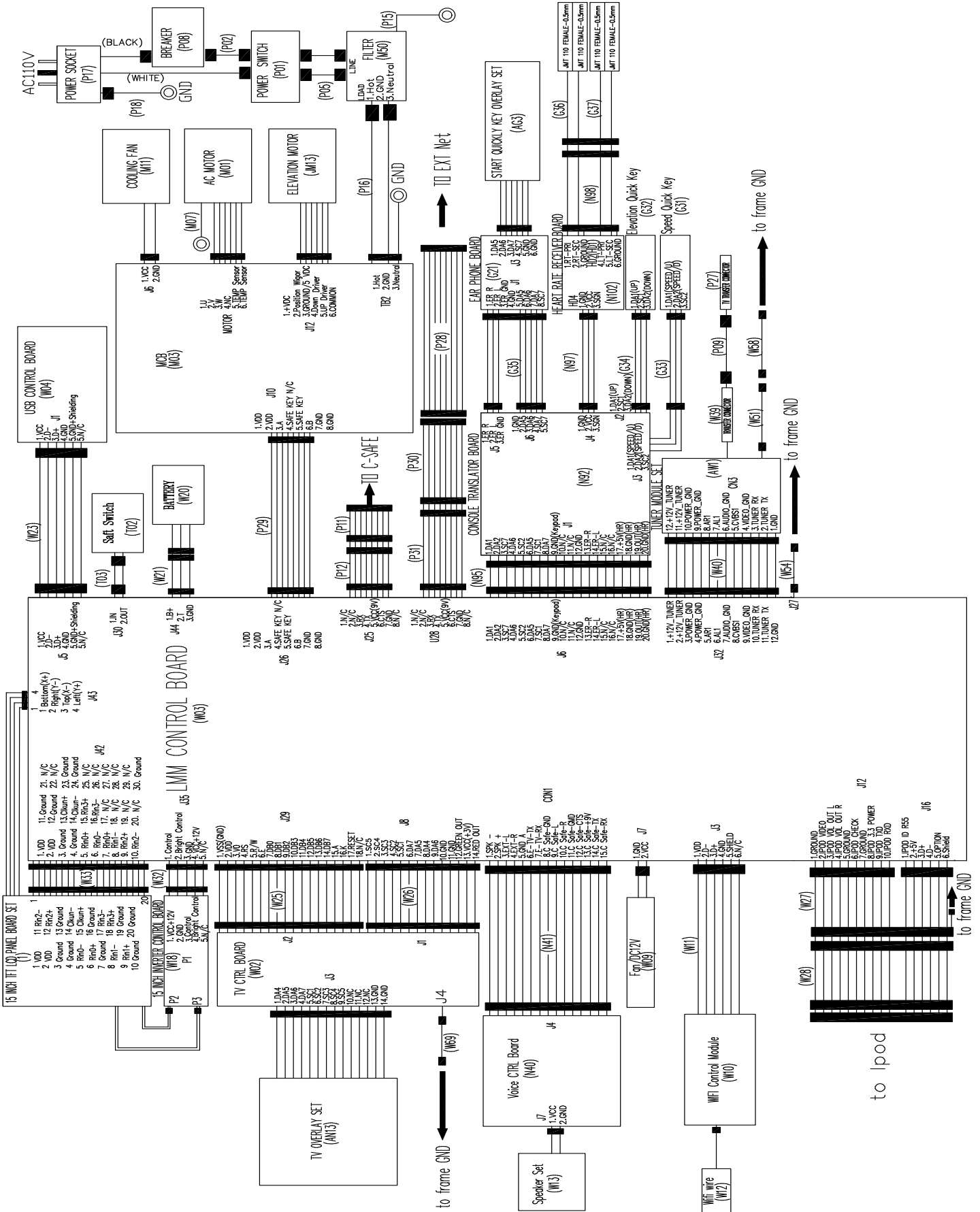
7.5 SERVICE MODE - TAB 4



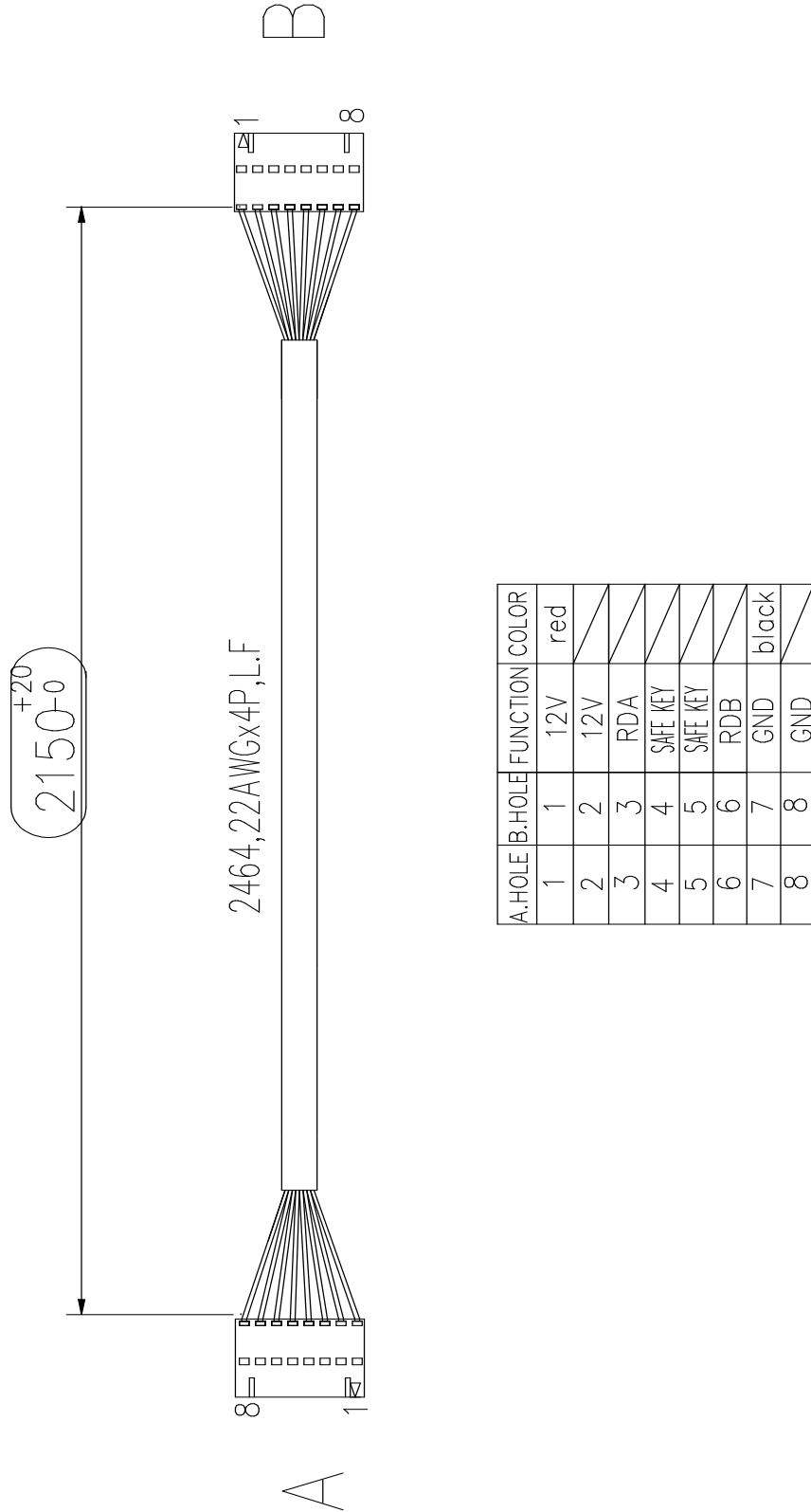
SERVICE MODE	FUNCTION & DEFAULTS	DESCRIPTIONS	MODIFIED
	Date & Time	This option allows the club to set the current date and time.	N/A

CHAPTER 8: TROUBLESHOOTING

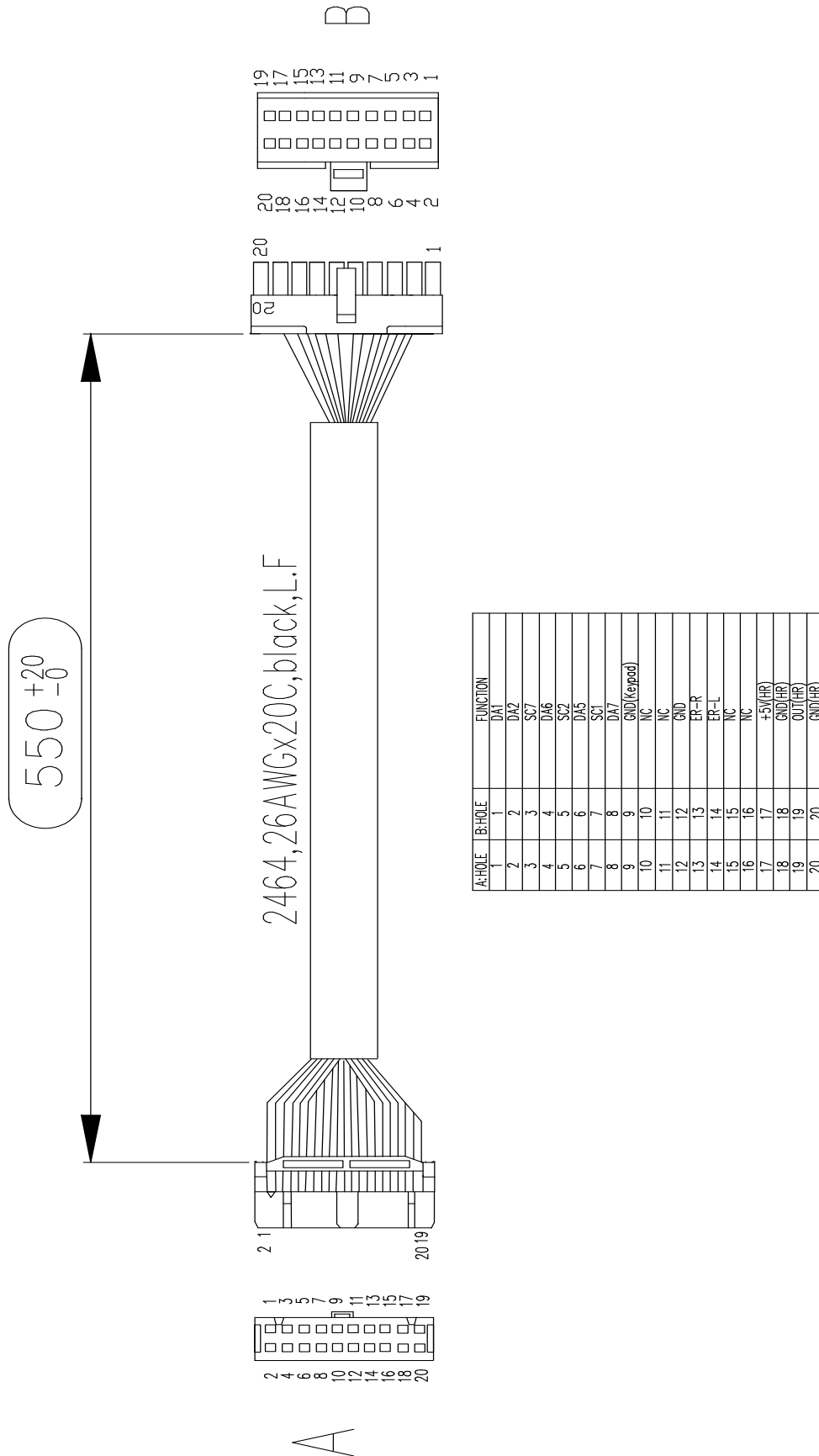
8.1 ELECTRICAL DIAGRAMS



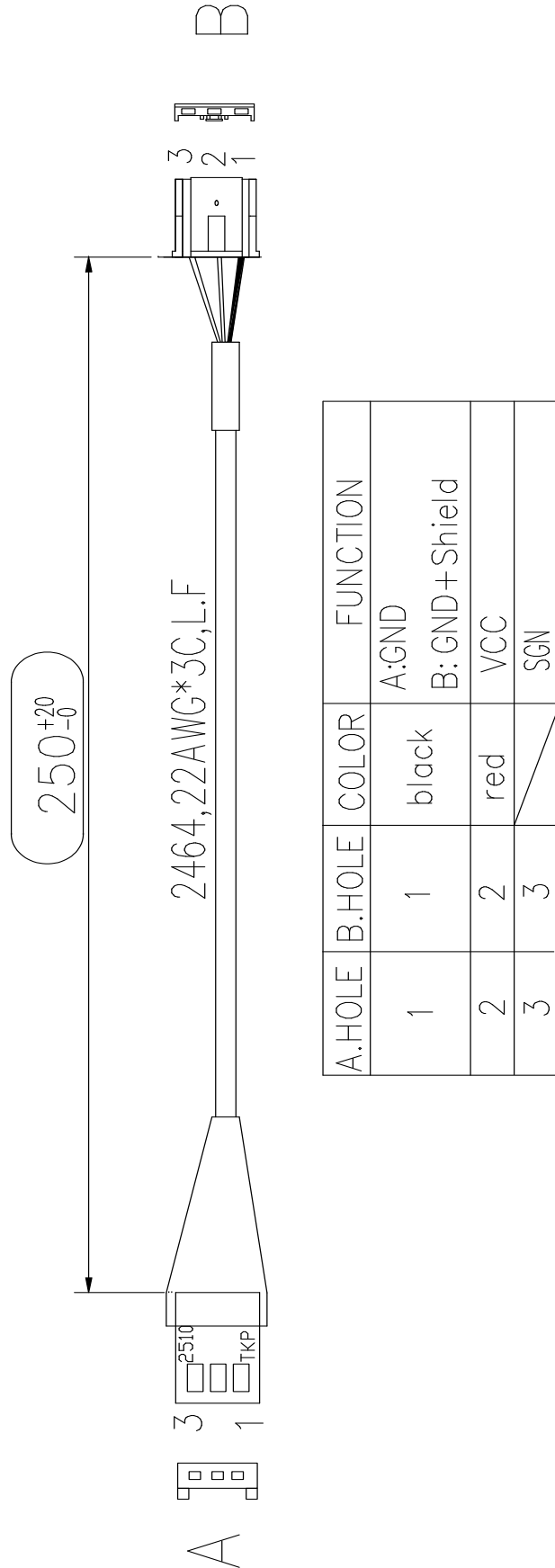
P29 DIGITAL COMMUNICATION WIRE



N95 UCB LITTLE BOARD WIRE

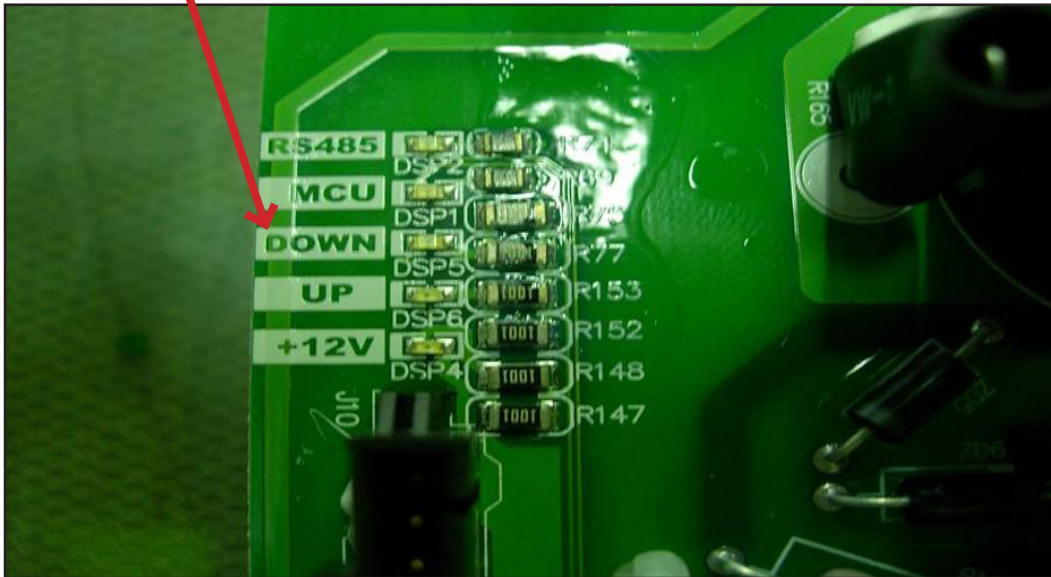
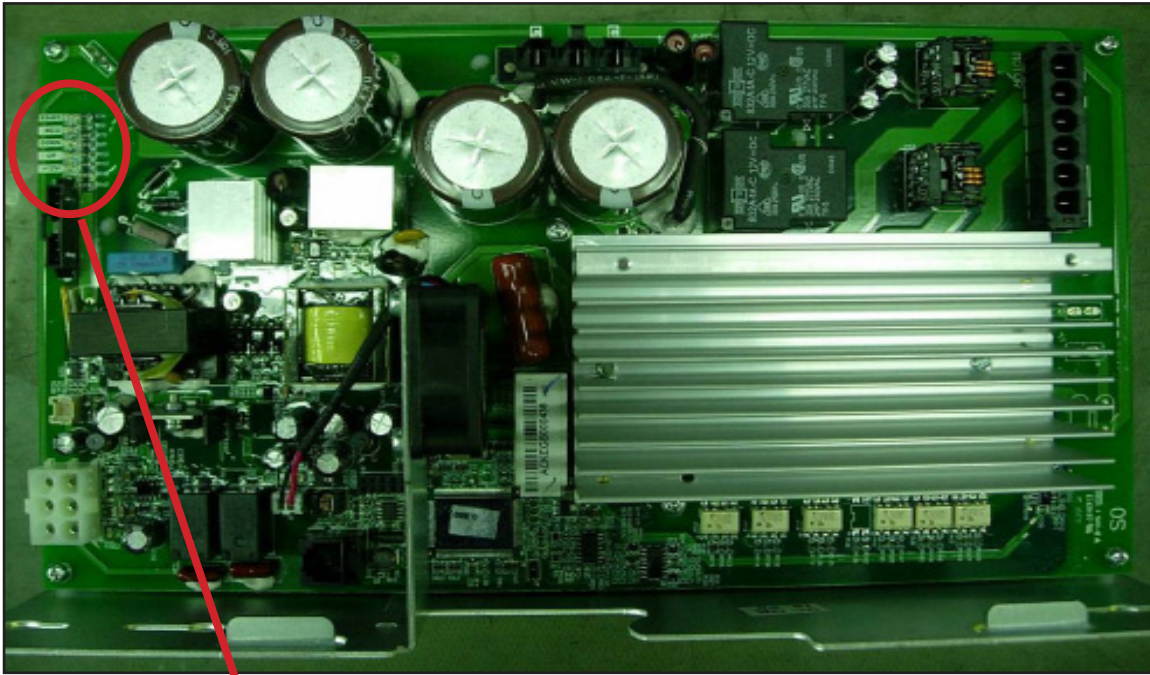


N97 HAND PULSE WIRE



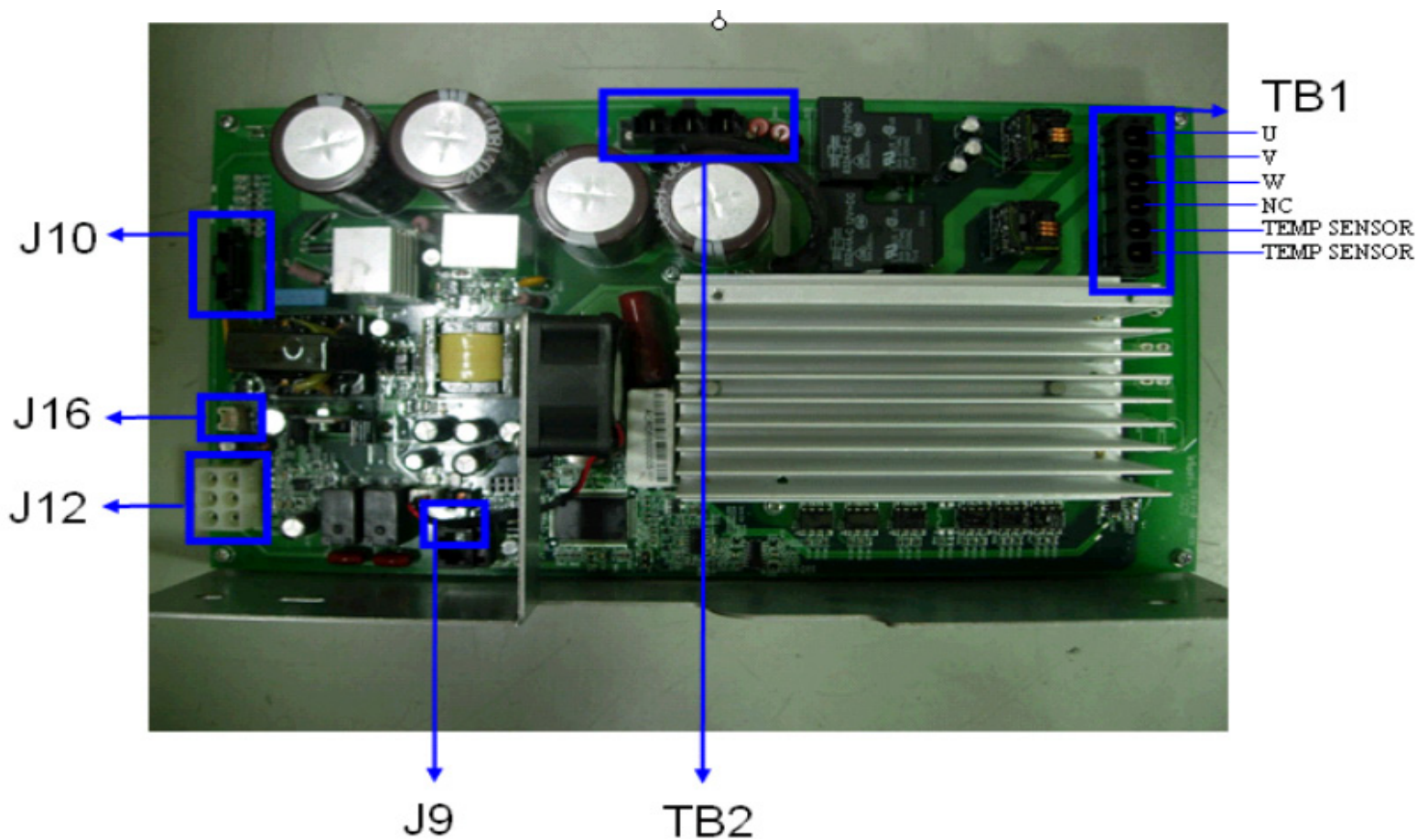
CHAPTER 8: TROUBLESHOOTING

8.2 MCB LED INSTRUCTIONS



LED	REFERENCE DESIGNATOR	DESCRIPTION
RS485	DSP2	Indicates if the digital communication is working normally between the console and the MCB. Blinking = Normal. Off = Fault
MCU	DSP1	Indicates if the console is working normally. Blinking - Normal. Light = MCU Fault. Off = MCU No Power.
DOWN	DSP5	Indicates if the console is commanding elevation down. Light = Normal. Off - No command from console received by the elevation motor.
UP	DSP6	Indicates if the console is commanding elevation up. Light = Normal. Off = No command from console received by the elevation motor.
+12V	DSP4	Indicates if the console voltage supply is present. Light = Normal. Off - 12 Volts are not provided by the MCB.

8.3 MCB WIRING



- TB1 - AC Motor Cable Socket**
- TB2 - Input Power Cable Socket**
- J9 - Inside Fan Cable Socket**
- J10 - Digital Communication Cable Socket**
- J12 - Elevation Motor Cable Socket**
- J16 - External Fan Cable Socket**

8.4 ERROR MESSAGES ON THE CONSOLE

CLASS LEVEL	ERROR CODE	DESCRIPTION
B	0140	Incline motor operation fail.
B	0141	Motor over temperature.
C	01A0	Incline motor is disconnected.
C	01A2	Incline motor is detected in the reverse of the position indicated by the potentiometer.
C	01A3	Motor is disconnected.
C	01A8	Motor over current.
C	01AB	Inverter Error.
C	01AD	Motor over loading.
B	0241	Lower DC bus voltage.
B	029F	Generic Class B Error.
C	02A2	Over DC bus voltage.
C	02A7	Motor over current.
C	02AC	Motor out of control (speed too high).
C	02AD	MCB over temperature.
C	02B2	Safety key signal is not received.
C	02B5	Inverter senses that the normal rated current is over 150% for 60 seconds.
C	02B6	Speed up has over current.
C	02B7	Speed down has over current.
C	02B8	Running status is over current.
C	02B9	The inner memory IC data write error.
C	02BA	The inner memory IC data read error.
C	02BB	Inverter inner line of communication error.
C	02BC	Ground connection error.
C	02BD	Inverter hardware interruption error.
B	0440	Timeout packet received.
B	0441	Correct packet received but MCB has no function.
C	04A0	No communication received.

Class Level

Class B = The machine will keep working and log an error.

Class C = The machine will stop.

8.5 0140 / 01A0 / 01A2 ERROR TROUBLESHOOTING

ERROR MESSAGES 0140 / 01A0 / 01A2

1) SYMPTOM:

- a. 0140 - Incline motor operation failed.
- b. 01A0 - Incline motor disconnected.
- c. 01A2 - Incline motor is detected in the reverse of the position indicated by the potentiometer.

2) SOLUTION

- a. Check the connection of the incline motor cable at the MCB.
- b. Run auto calibration (See Section 3.5).
- c. If auto calibration fails, re-enter Engineering Mode and again go to Calibration.
 - Select Incline Minimum, and then Go To Value.
 - Check the MCB LEDs. If LED DOWN (Figure A) has no light, check the console cable connections at the console and MCB.
- d. If the incline motor does not resolve the issue, replace the MCB.

Replace the console or cable as needed. If LED DOWN has a light, replace the incline motor.



FIGURE A

8.6 01A3 ERROR TROUBLESHOOTING

ERROR MESSAGE 01A3

1) SYMPTOM:

- a. Motor is disconnected.

2) SOLUTION:

- a. Check the connection of the motor cable at the MCB (Figure A).
- b. Check to see if the MCB LED DSP1 (MCU) is lit (Figure B).
- c. If LED DSP1 is blinking, the motor should be replaced.
- d. If LED DSP1 is a solid light, replace the motor.
- e. If LED DSP1 is not lit, replace the MCB.

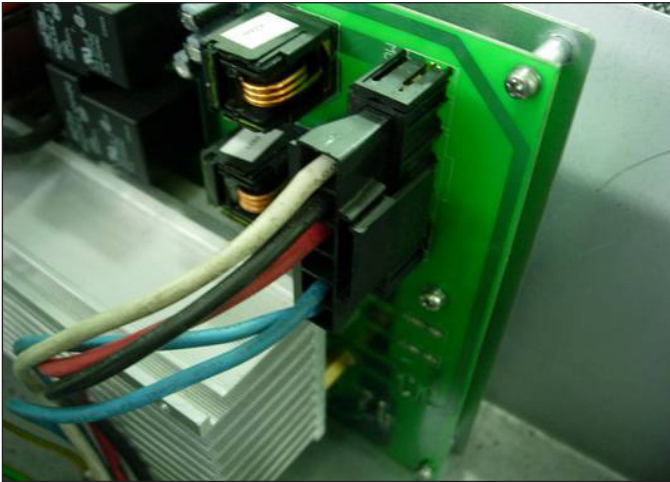


FIGURE A

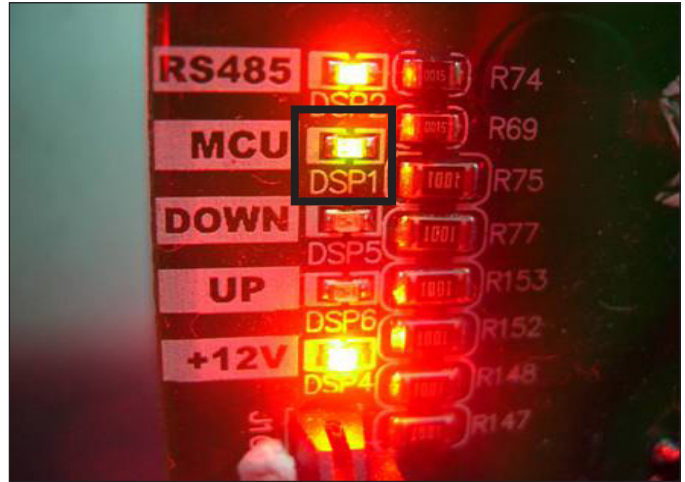


FIGURE B

8.7 01A8 / 02B6 / 02B7 / 02B8 ERROR TROUBLESHOOTING

ERROR MESSAGE 01A8 / 02B6 / 02B7 / 02B8

1) SYMPTOM:

- a. 01A8 - Motor over current.
- b. 02B6 - Speed up is overcurrent.
- c. 02B7 - Speed down is overcurrent.
- d. 02B8 - Running status is overcurrent.

2) SOLUTION:

- a. Check the condition of the running deck and belt. Replace the belt and flip or replace the running deck as needed.
- b. Replace the MCB.

8.8 01AD ERROR TROUBLESHOOTING

ERROR MESSAGE 0X029F

1) SYMPTOM:

- a. Motor over temperature.

2) SOLUTION:

- a. Check the connection of the motor cable at the MCB (Figure A).
- b. Use a multi-meter to check the motor wire circuit. Set the multi-meter to Ohms and place both terminals on the blue wires of the motor cable (Figure B). There should be an Ohm reading of 0. If there is an Ohm reading above 0, replace the motor. If the Ohm reading is 0, replace the MCB.



FIGURE A



FIGURE B

8.9 02AD ERROR TROUBLESHOOTING

ERROR MESSAGE 02AD

1) SYMPTOM:

- a. MCB is over temperature.

2) SOLUTION:

- a. Check to see that both fans are operating (there is a fan mounted to the MCB itself as well as an external fan). Also check the connection of the fans at the MCB (Figure A).
- b. If the fans are running correctly, replace the MCB.

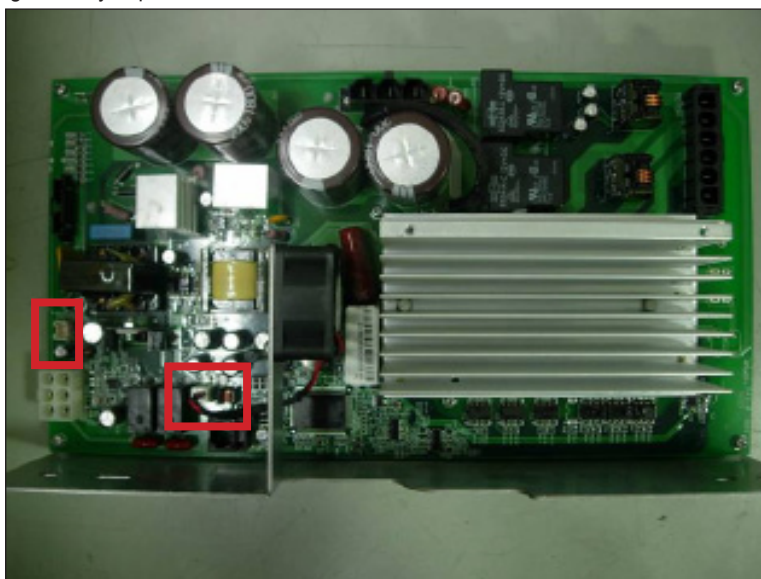


FIGURE A

8.10 02B2 ERROR TROUBLESHOOTING

ERROR MESSAGE 02B2

1) SYMPTOM:

- a. The emergency circuit on the interface board active.

2) SOLUTION:

- a. Check the connection of the safety key (emergency stop) switch (Figure A). If the switch is always open or shorted out, replace the switch.
- b. If the emergency stop does not resolve the issue, replace the console.



FIGURE A

8.11 02B9 / 02BA / 02BD ERROR TROUBLESHOOTING

ERROR MESSAGE 02B9 / 02BA / 02BD

1) SYMPTOM:

- a. 02B9 - The inner memory IC data write error.
- b. 02BA - The inner memory IC data read error.
- c. 02BD - Inverter hardware interrupt error.

2) SOLUTION:

- a. Check LED DSP1 (MCU) on the MCB (Figure A).
- b. If this LED is blinking, replace the console.
- c. If this LED is a constant light, replace the MCB.
- d. If this LED is not lit at all, check the power to the MCB.

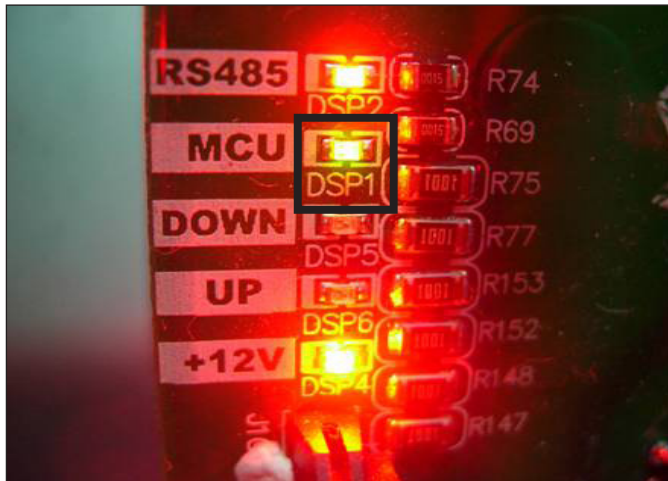


FIGURE A

8.12 04A0 ERROR TROUBLESHOOTING

ERROR MESSAGE 04A0

1) SYMPTOM:

- a. No communication received.

2) SOLUTION:

- a. If the display is giving an 04A0 error, LED DSP2 (RS485) should be off (Figure A). If this light is not on and an 04A0 error is present, replace the console.
- b. Check the connection of the console communication cable at both the console and the MCB.
- c. Replace the console communication cable.
- d. Replace the MCB.

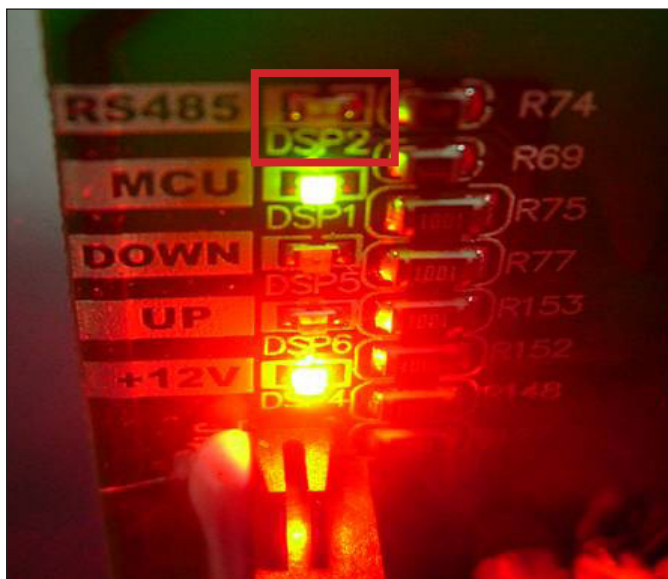


FIGURE A

8.13 TROUBLESHOOTING - NO POWER TO THE CONSOLE

POWER SWITCH IS ON, BUT THE CONSOLE HAS NO DISPLAY

1) SYMPTOM:

- a. The unit is not getting power from the outlet.
- b. The MCB is not getting power from the power receptacle.
- c & d. The power switch and MCB LEDs are lit, but there is no power to the console.

2) SOLUTION:

- a. Check to see if the power switch is lit. If it is not, plug the power cord into a known working outlet and re-test.
 - If the power switch is still not lit, replace the power switch, receptacle, and / or the power cord.
- b. Remove the motor cover and check to see if LED +12V (DSP4) is lit on the MCB (Figure A).
 - If the LED +12V is not lit, check the incoming AC voltage to the MCB.
 - Replace the MCB if all power components are OK, and there is AC volts to the MCB.
- c. If LED +12V is lit, check the switch on the back of the IO Board (Figure B).
 - If the unit has a power board (Figure C), the switch should be towards the left (EX_Power).
 - If the unit does not have a power board, the switch should be towards the right (LCB_Power).
- d. If LED +12V is lit, check the connection of the console communication cable.
 - If the console communication cable is connected correctly, LED 2 on the console UCB should be lit.
 - If LED 2 on the console UCB is not lit, replace the console communication cable.
 - If LED 2 on the console UCB is lit, but there is still no power to the console, replace the console.

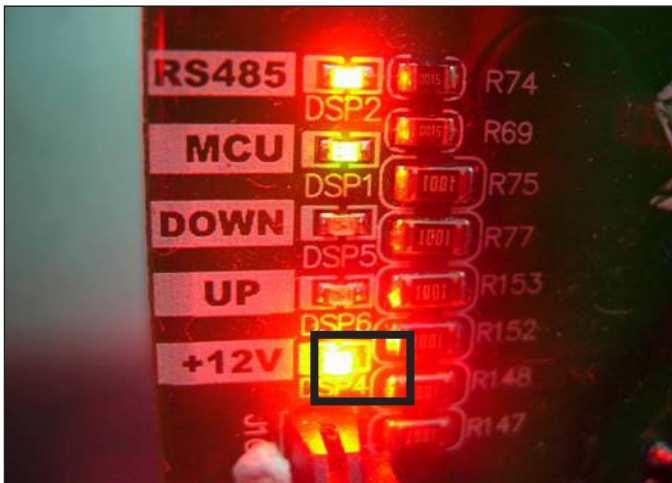


FIGURE A

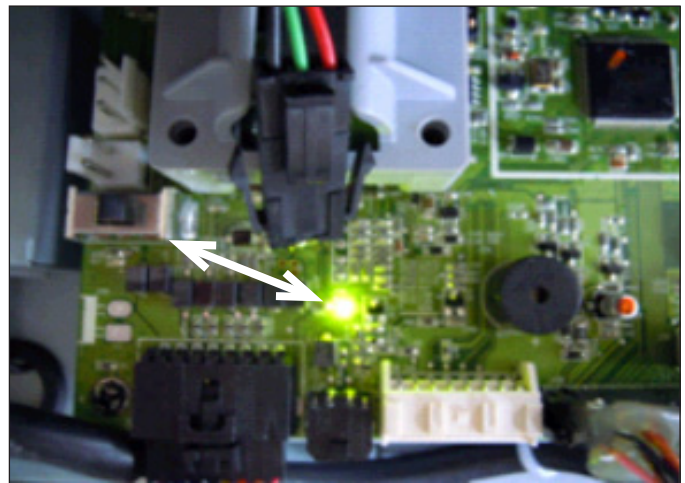


FIGURE B



FIGURE C

HEART RATE ISSUES

1) SYMPTOM:

- a. The display is stuck on heart rate.
- b. Erratic heart rate.
- c. No heart rate.

2) SOLUTION:

- a. If the display is stuck on heart rate, it is normally due to the lighting in the workout area.
 - Change the lighting in the area of the treadmill.
 - Move the treadmill to a different area.
 - Also check to make sure that nobody is using a telemetric heart rate strap in the area.
- b. Something is interfering with the heart rate signal.
 - Verify the proper use of the heart rate grips / chest strap.
 - Verify that nothing is touching the heart rate grips (for example the safety key strap or headphone wiring).
 - There are some things that will interfere with heart rate signal including: florescent lighting, electric dog fences, large electric motors, cell phone towers, and airports.
- c. The console is not receiving a heart rate signal.
 - Verify the proper use of the heart rate grips / chest strap.
 - Check the connection of the heart rate grip wiring at the heart rate board.
 - Remove the screws holding the 2 halves of the heart rate grip together and check the connection of the heart rate grip wiring to the grips (Figure A).
 - If all wiring connections are good, replace the heart rate grips and / or the heart rate board.
 - If the heart rate grips and / or heart rate board do not resolve the issue, replace the console.



FIGURE A

CONSOLE DISPLAY COLOR ISSUES

1) SYMPTOM:

- a. The display colors are off or there are a "rainbow" of colors on the display.

2) SOLUTION:

- a. Check the console cable connections at the upper and lower control boards.
- b. Check the LED display wire connection (Figure A).
 - This wire connection should be taped in place, add tape if needed.
 - This wire should be tie strapped to the frame (Figure B). Add a tie strap if needed.

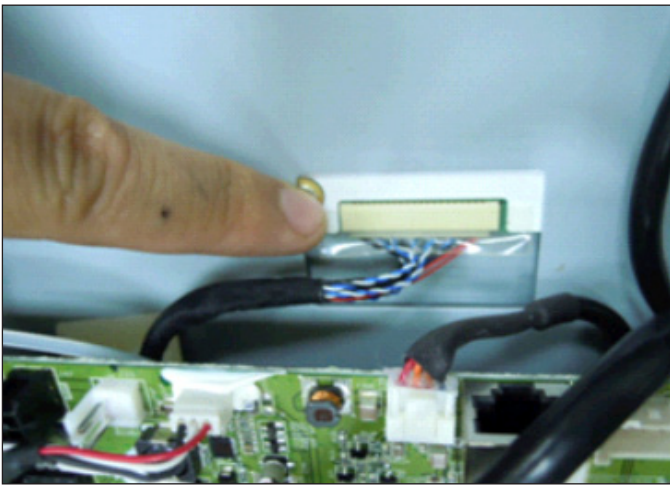


FIGURE A

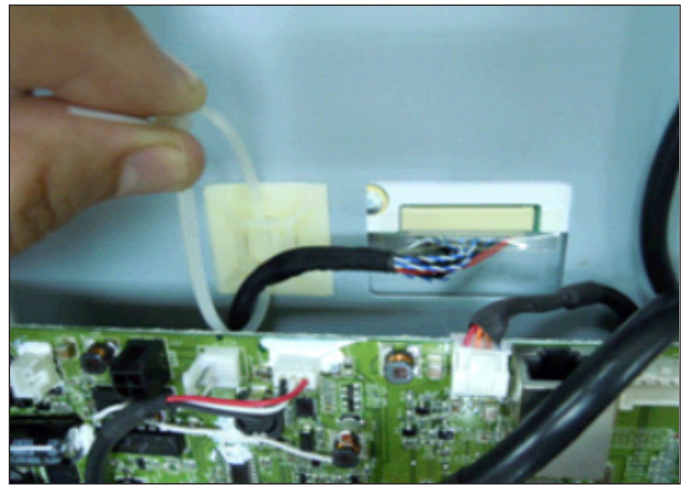


FIGURE B

8.16 TROUBLESHOOTING - SPEED SHOWN IS SLOWER THAN BELT SPEED

SCREEN SHOWS A HIGH SPEED, BUT THE BELT MOVING SLOWER THAN SHOWN

1) SYMPTOM:

- a. The unit speed does not match the console display.

2) SOLUTION:

- a. Perform an amp draw on the incoming power (see Field Work Instruction - Running an Amp Draw on Matrix Treadmills).
- b. If the amp draw is too high regardless if a user is present or not, the issue is likely with the drive system (drive belt or motor).
 - Make sure that there is enough tension from the idler on the drive belt so that it is not slipping.
 - Check the rotation of the motor to find any dead spots or a wobble in the motor axle.
 - Check the condition of the drive belt. Look for any wear or tears. Replace as needed.
- c. If the amp draw is too high with a user, the issue is likely with the deck / running belt.
 - Inspect the running deck for sticky or worn spots. If any wear is seen, flip the deck (it is waxed on both sides). A new running belt should be installed any time a running deck is flipped.
 - Replace the running belt.

8.17 ENTERTAINMENT TROUBLESHOOTING - OVERVIEW

1. Sections 8.17 - 8.20 will help with diagnosing problems with TV and entertainment related equipment that is produced by Matrix Fitness.
2. The Matrix T7xe treadmill includes an integrated TV that shows in the large display window. The TV is capable of being shown as a 7" or 15" screen (Figures A & B). Your treadmill should be equipped with an Entertainment keypad similar to Figure C.



FIGURE A



FIGURE B



FIGURE C

8.18 ENTERTAINMENT TROUBLESHOOTING – PICTURE FUZZY OR UNCLEAR

1. Using a verified good piece of coax cable (a good coax cable will have a signal strength of 10hz or greater), remove the console back cover (Figure A) and hook the coax directly to the TV jack on the tuner. This bypasses internal connections for your machine (Figure B).
2. Check your internal cables and fittings inside your machine at the console (Figure B) and below the motor cover (Figure C). Make sure you have no damage (kinks, cuts etc) and no stray wires or poor fittings on the ends of the cables. Fittings should look like Figure D, with a clean flush connector and no stray aluminum strands touching the center conductor. Replace or repair any suspect cables.
3. If no damage can be found on cables, fittings, or connectors begin replacing cables and connectors with known good parts until the damaged part is found. It is also possible that the console tuner is damaged, replace as needed.



FIGURE A

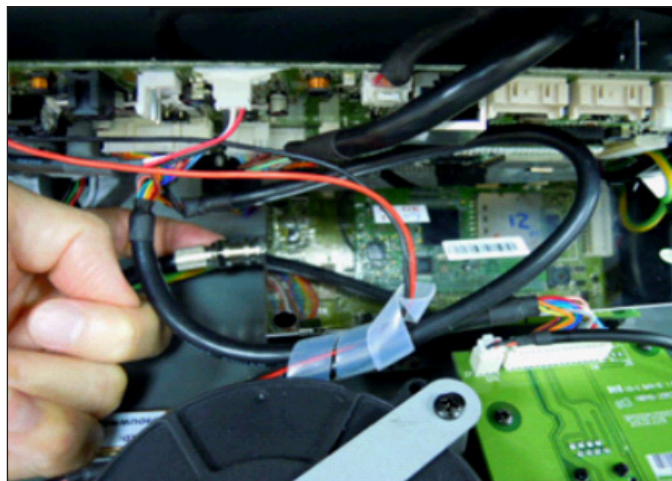


FIGURE B

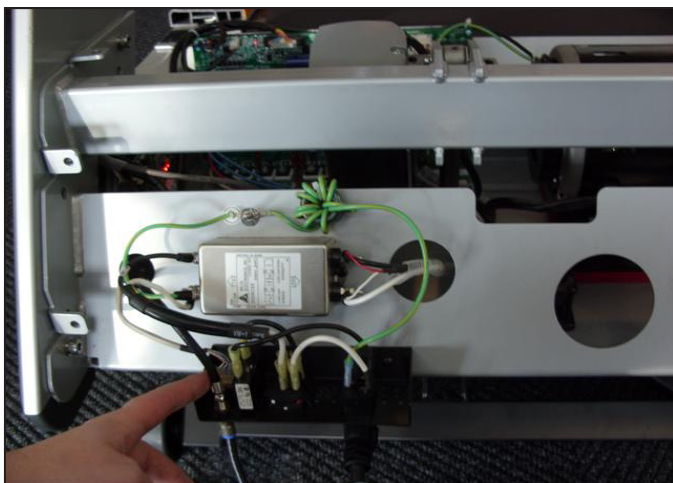


FIGURE C



FIGURE D

CHAPTER 8: TROUBLESHOOTING

8.19 ENTERTAINMENT TROUBLESHOOTING -TV WILL NOT TURN ON

1. If you have no picture at all, check to see if you have any status lights on your Entertainment keypad (next to the power button). The status light should be red when off or in standby mode, and green when the TV is powered on. If you have lights of any color skip to Section 8.20.
2. Remove the console back (Figure A) and check the electrical connections for the TV (Figures B & C).
3. After you have verified all connections are secure and problem still exists verify power at the outlet (Figure D). If the outlet is not outputting 120V, check the fitness room power.
4. If internal electrical connections are good, and the outlet is outputting 120V, the issue is likely with the TV, contact Matrix Customer Technical Support.



FIGURE A

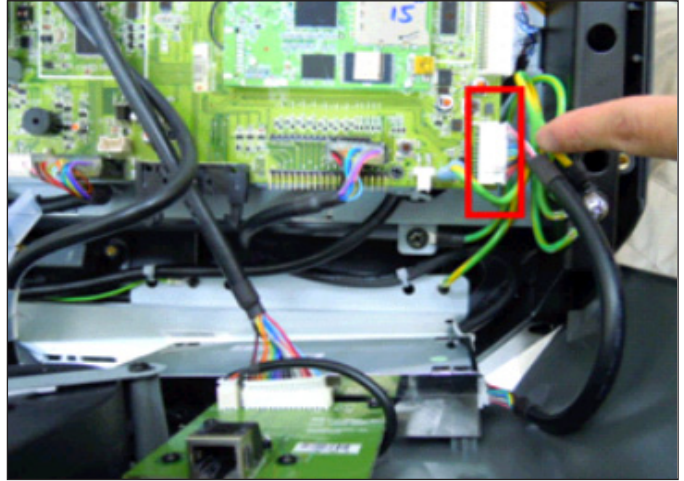


FIGURE B

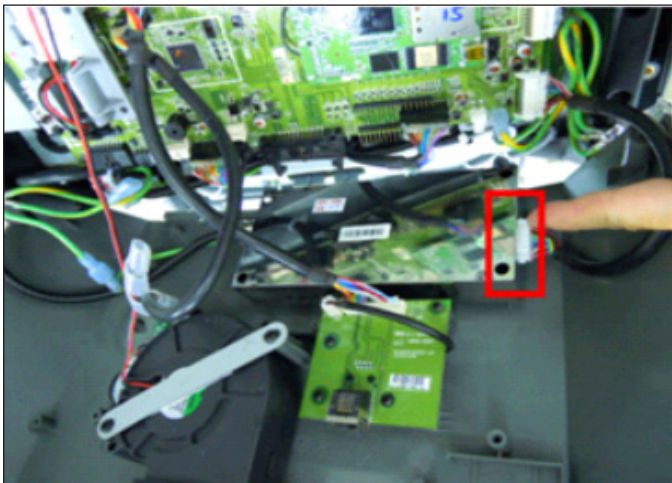


FIGURE C



FIGURE D

8.20 ENTERTAINMENT TROUBLESHOOTING - ENTERTAINMENT KEYPAD ISSUES

1. If you have a status light on the Entertainment keypad but the On/Off button gives no response, disconnect and then reconnect the power to the treadmill from the wall. Attempt to turn on the TV again using the On/Off button.
2. If TV still does not power on, remove the console back (Figure A) and check the Entertainment keypad connections at the console (Figure B).
3. If the TV does not power on after the Entertainment keypad connection is reset, the issue is likely with the TV itself, contact Matrix Customer Technical Support.



FIGURE A

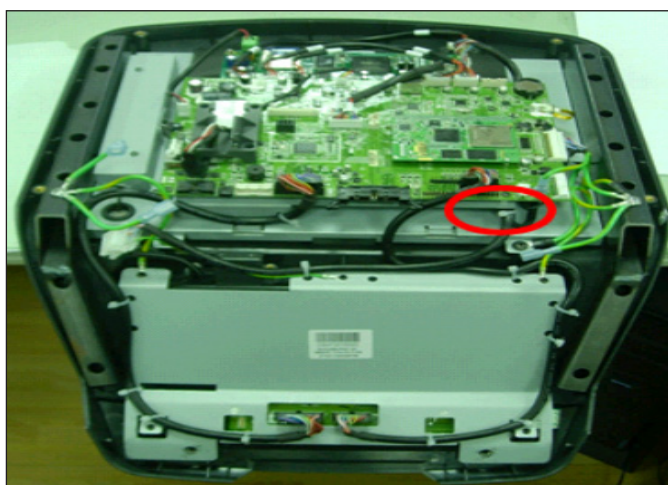


FIGURE B

9.1 MOTOR COVER AND LOWER SHROUD REMOVAL

- 1) The motor cover is split into two pieces (called the motor cover and lower shroud)
- 2) Remove the 2 screws holding motor cover to the frame (Figure A).
- 3) Pull up on the rear of the motor cover to release the Velcro, and remove the motor cover (Figure B).



FIGURE A



FIGURE B

- 4) Remove the 4 screws holding the lower shroud to the frame (Figure C).
- 5) Figure D shows a unit with both the motor cover and lower shroud removed.



FIGURE C

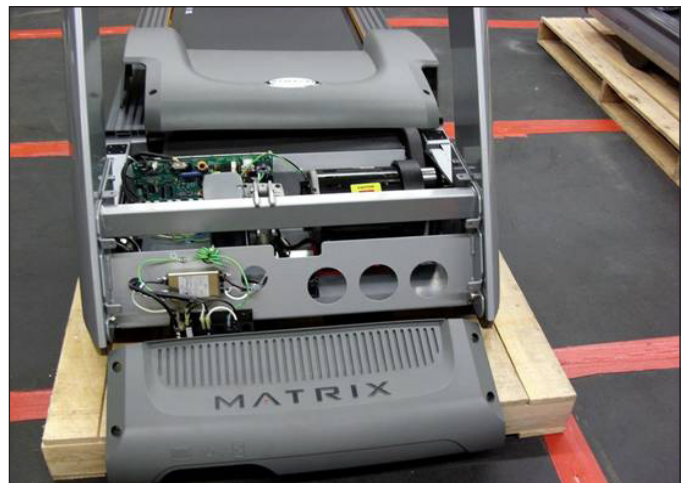


FIGURE D

9.2 REAR ROLLER REPLACEMENT

- 1) Turn off power to the unit and disconnect the cord from the machine.
- 2) Remove one of the end caps using a Phillips screwdriver (Figure A).
- 3) Remove both roller adjustment screws using an 8 mm Allen wrench (Figure B).



FIGURE A



FIGURE B

- 4) Remove the roller from the running belt (Figures C & D).



FIGURE C



FIGURE D

- 5) Reverse Steps 1-4 to install a new rear roller.
- 6) Tension the running belt as outlined in Section 3.6.

9.3 RUNNING DECK REPLACEMENT

- 1) Remove the motor cover as outlined in Section 9.1.
- 2) Remove the four running deck screws using a 5 mm Allen wrench (Figure A).

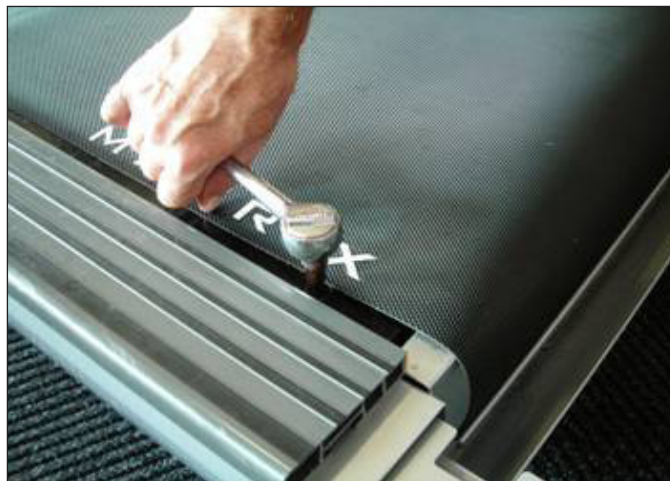


FIGURE A

- 3) Remove the running deck from the running belt (Figures B & C). **NOTE:** Be careful not to pinch fingers during removal / installation of the running deck.



FIGURE B



FIGURE C

- 4) Reverse Steps 1-3 to install a new running deck. **NOTE:** The running deck is waxed on both sides so the opposite side surface may be usable. New running deck surfaces must ALWAYS be matched to a new running belt.
- 5) Tension the running belt as outlined in Section 3.6.

9.4 RUNNING DECK CUSHION REPLACEMENT

- 1) Remove the running deck as outlined in Section 9.3.
- 2) Hold the running deck cushion bolt with a 5 mm Allen wrench and loosen the nut with a 13 mm socket (Figure A & B).



FIGURE A



FIGURE B

- 3) Remove the rear cushion by holding the cushion while removing the 13 mm nut (Figure C).



FIGURE C

- 4) Reverse Steps 1-3 to install new running deck cushions.
- 5) Tension the running belt as outlined in Section 3.6.

9.5 FRONT ROLLER REPLACEMENT

- 1) Remove the motor cover as outlined in Section 9.1.
- 2) Using a hook or loop of wire, remove the spring from the drive belt tensioner. The tensioner should now pivot away from the drive belt (Figures A & B).



FIGURE A



FIGURE B

- 3) Remove the front roller mounting screws using an 8 mm Allen wrench (Figures C & D).
- 4) Remove the drive belt from the front roller and remove the roller from the running belt (Figure E).

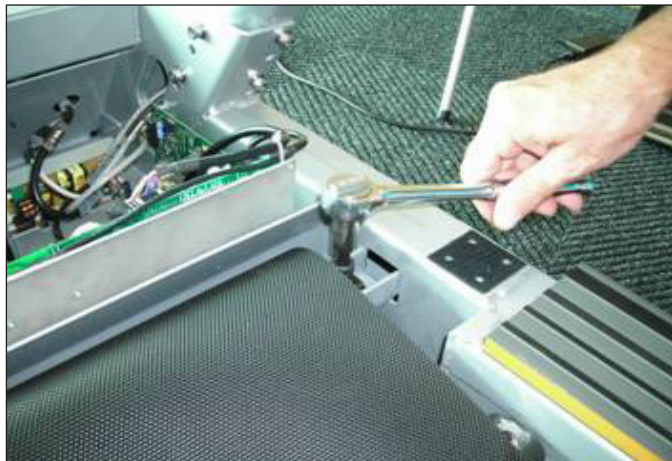


FIGURE C



FIGURE D



FIGURE E

- 5) Reverse Steps 1-4 to install a new front roller.
- 5) Tension the running belt as outlined in Section 3.6.

9.6 RUNNING BELT REPLACEMENT

- 1) Remove the motor cover as outlined in Section 9.1.
- 2) Remove the rear roller as outlined in Section 9.2.
- 3) Remove the running deck as outlined in Section 9.3.
- 4) Remove the front roller as outlined in Section 9.5.
- 5) Once the rollers and deck are removed, the running belt can be lifted up and off the unit (Figures A & B).

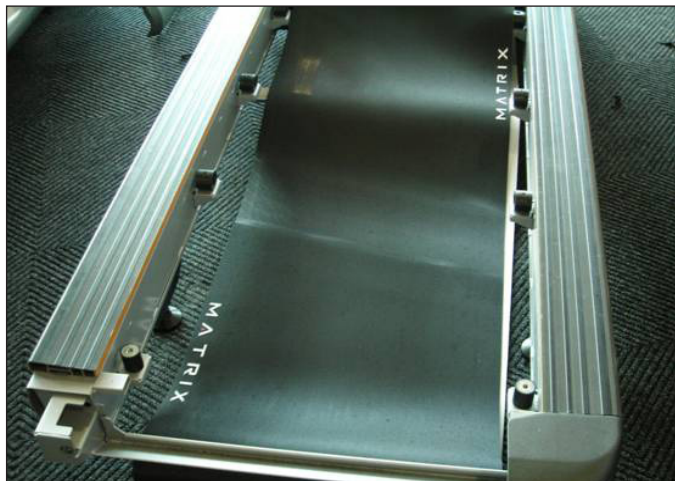


FIGURE A



FIGURE B

- 6) Reverse Steps 1-5 to install a new running belt. **NOTE:** A new running belt should ALWAYS be installed on a new deck surface (deck should either be flipped or replaced to gain a new surface).
- 7) Tension the running belt as outlined in Section 3.6.

9.7 SIDE RAIL REPLACEMENT

- 1) Remove the 4 screws holding on the end cap on the same side as the broken side rail using a Phillips screwdriver and remove the end cap (Figure A).
- 2) Loosen the four screws under the frame of the side rail using a 5 mm Allen wrench (Figure B).



FIGURE A



FIGURE B

- 3) Slide the rail off the back of the treadmill (Figures C & D).

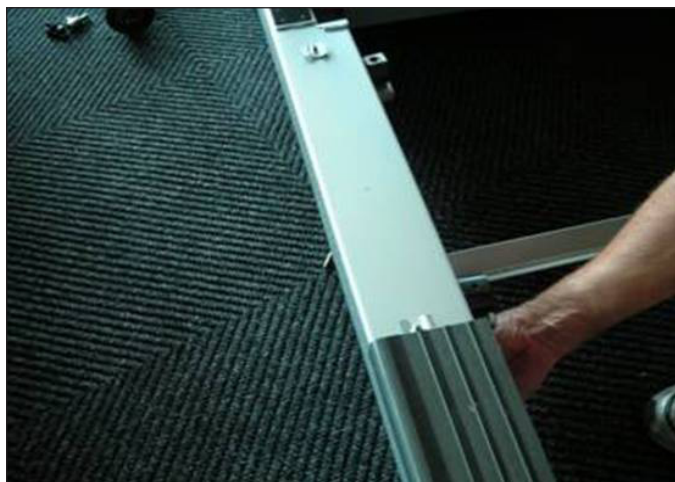


FIGURE C



FIGURE D

- 4) Reverse Steps 1-3 to install a new side rail. **NOTE:** After reinstalling the side rail, make sure the end cap is on first before tightening the screws for proper gap spacing. Also be careful not to over tighten the screws, or they will poke through the top of the side rail.

9.8 MOTOR CONTROL BOARD (MCB) REPLACEMENT

- 1) Turn off power and disconnect the cord from the machine.
- 2) Remove the motor cover as outlined in Section 9.1.
- 3) Cut any wire ties that are secured to the MCB panel.
- 4) Disconnect wires from the MCB - five total connections.
- 5) Remove two MCB mounting screws using a Phillips head screwdriver (Figures A & B).

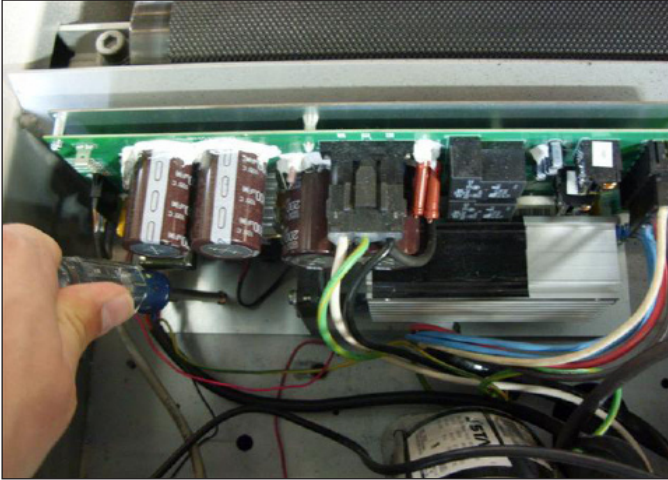


FIGURE A

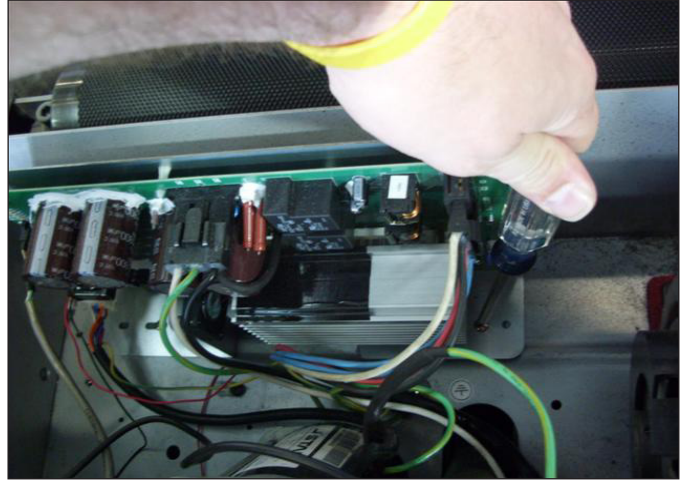


FIGURE B

- 6) Reverse Steps 1-5 to install a new MCB. Be sure to re-connect the 5 wires removed from the old MCB in Step 4 (Figure C). **NOTE:** The speed sensor wire from the motor is no longer used and can be tie strapped to a bracket.
- 7) Auto Calibration must ALWAYS be run after replacing the MCB (see Section 3.5).

J10 - 8 pin black connector to the console.

TB2 - 3 pin connector from the choke (2 wires) and a ground (1 wire).

TB1 - 5 pin connector from the motor.

J16 - 2 pin white connector to the external fan.

J12 - 6 pin white connector to the incline motor.

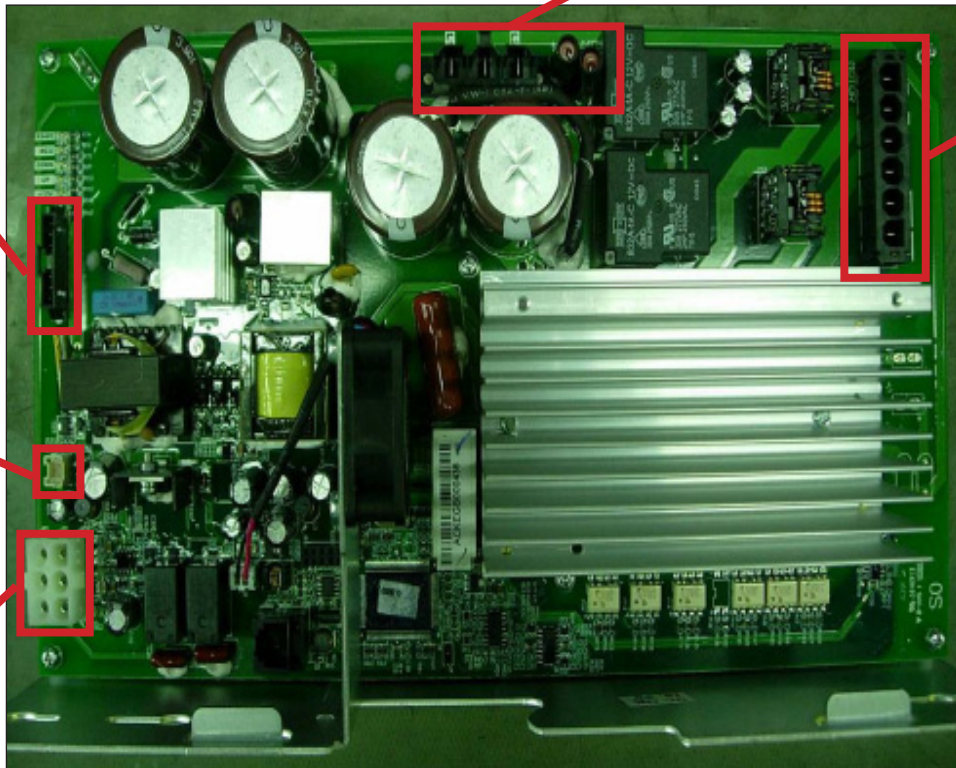


FIGURE C

9.9 MOTOR REPLACEMENT

- 1) Turn off the power and disconnect the cord from the machine.
- 2) Remove the motor cover as outlined in Section 9.1.
- 3) Release the drive belt tensioner as outlined in Section 9.5.
- 4) Disconnect the motor power cable from the MCB (Figure A).
- 5) Use an 8 mm Allen wrench to remove the four motor mounting screws (Figure B).



FIGURE A



FIGURE B

- 6) Lift the motor away from the treadmill (Figure C).
- 7) Reverse Steps 1-6 to install a new motor. **NOTE:** When reinstalling the motor, make sure the red vibration pad is in place (Figure D).



FIGURE C



FIGURE D

- 8) Auto Calibration must ALWAYS be run when installing a new motor. (see Section 3.5)

9.10 DRIVE BELT REPLACEMENT

- 1) Remove the motor cover as outlined in Section 9.1.
- 2) Release the drive belt tensioner from the drive belt as outlined in Section 9.5.
- 3) Remove the front roller screw on the drive belt side and loosen the screw on the opposite side (Figure A).



FIGURE A

- 4) Lift the roller and remove the old drive belt (Figure B).

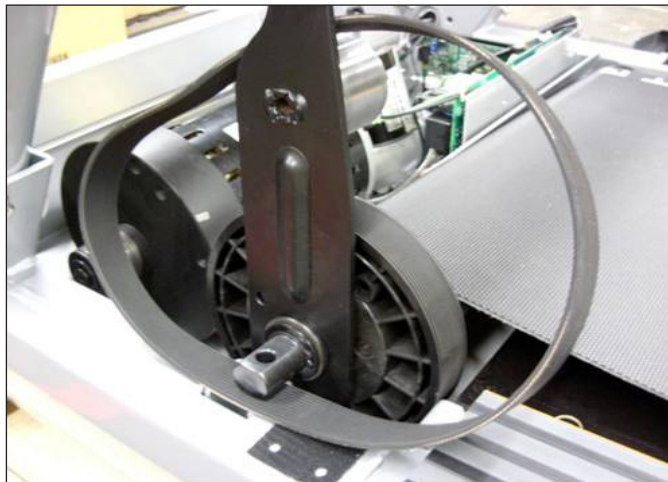


FIGURE B

- 5) Reverse Steps 1-4 to install a new drive belt. **NOTE:** After installing a new belt, check it for correct alignment to the motor pulley before setting the tensioner in place.
- 6) Tension the running belt as outlined in Section 3.6.

9.11 INCLINE MOTOR REPLACEMENT

- 1) Turn off the power and disconnect the cord from the machine.
- 2) Lift the treadmill and support it so that the front wheels are off the floor, or the unit may be tipped on its side (Figure A).



FIGURE A

- 3) Remove the clip from the pin attaching the bottom of the incline motor to the rack (Figure B).
- 4) Remove the pin attaching the bottom of the incline motor to the rack (Figure C).



FIGURE B



FIGURE C

9.11 INCLINE MOTOR REPLACEMENT - CONTINUED

- 5) Disconnect the incline motor power cable from the MCB (Figure D).
- 6) Disconnect the pin from the top of the incline motor (Figure E).

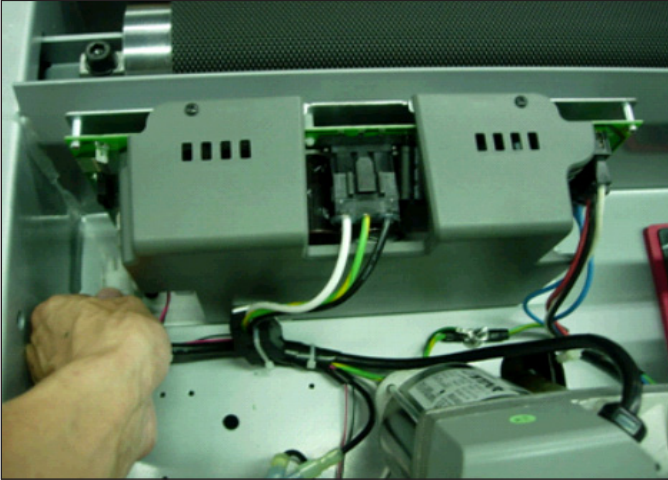


FIGURE D



FIGURE E

- 7) Lift the incline motor away from the treadmill (Figure F).
- 8) Reverse Steps 1-7 to install a new incline motor. When installing the new motor, the worm screw should be turned as short as possible, and then rotated out 2 full turns prior to being re-attached to the rack. **NOTE:** When installing the new incline motor, make sure to replace the white washers at the top and bottom connection points of the incline motor (Figure G).

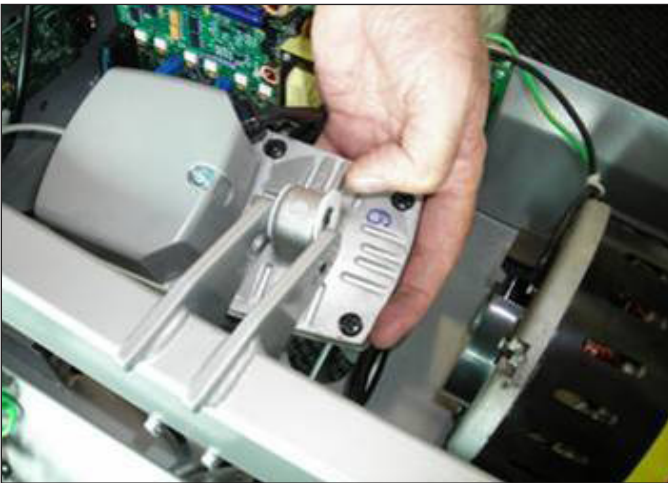


FIGURE F



FIGURE G

- 9) Auto Calibration must ALWAYS be run after replacing the incline motor (see Section 3.5).

9.12 CONSOLE REMOVAL

- 1) Turn off the power and disconnect the cord from the machine.
- 2) Remove the 4 screws holding the console back to the front (Figure A).
- 3) Lean the console back away from the console and disconnect the coax cable connection.
- 4) Remove the six 6 mm screws from underneath the console. There are arrows stamped in the plastic at the proper openings (Figure B).



FIGURE A

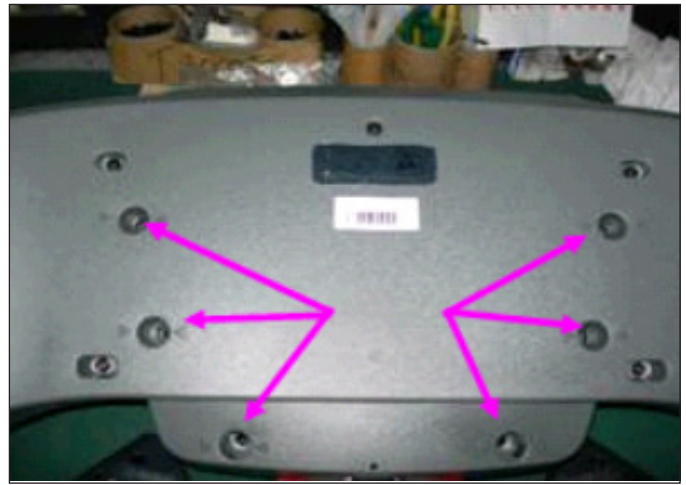


FIGURE B

- 5) Disconnect the remaining connectors holding the console to the frame and remove the console.
- 6) Reverse Steps 1-5 to install a new console. **NOTE:** Be sure to re-connect any wire connections removed in Steps 3 and 5 (Figure C).

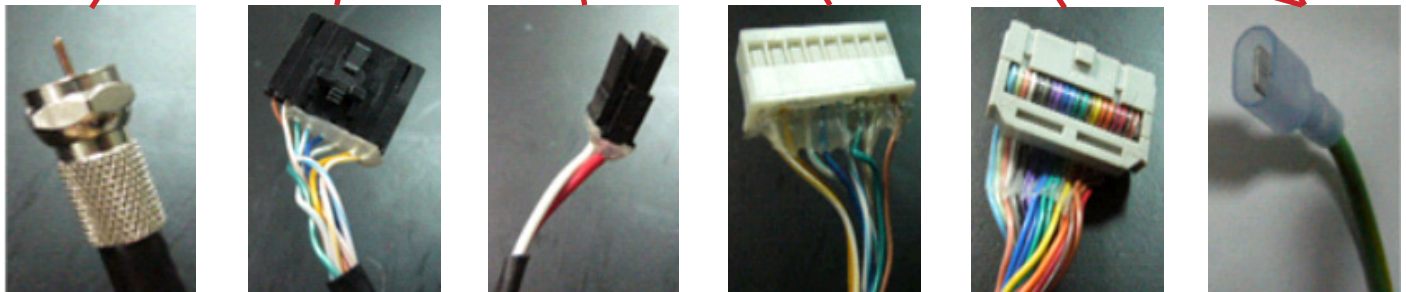
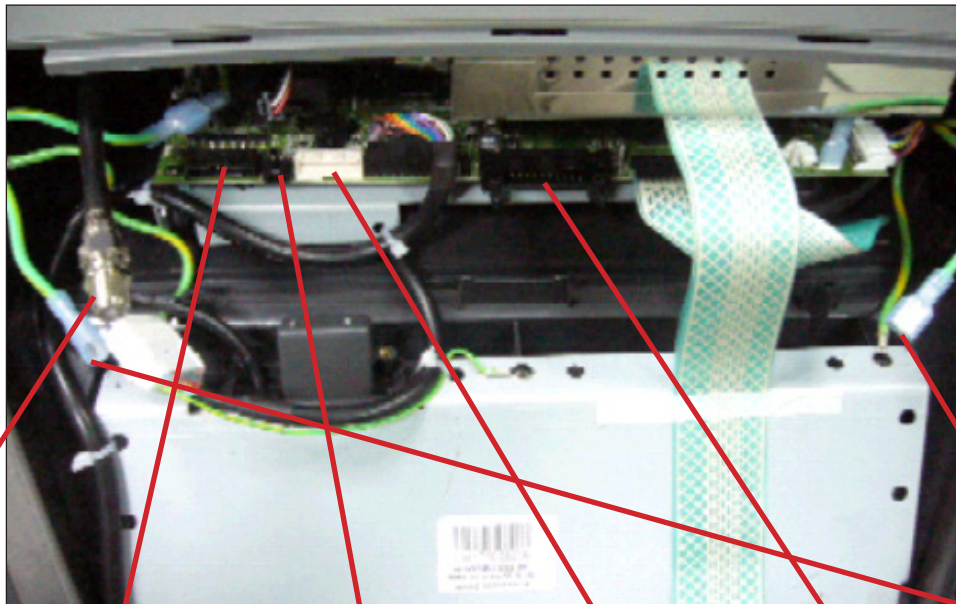


FIGURE C

- 7) Auto Calibration must ALWAYS be run after replacing the console (see Section 3.5).

9.13 CONSOLE MAST ARM REPLACEMENT

- 1) Turn off power and disconnect the cord from the machine.
- 2) Remove the console as outlined in Section 9.12.
- 3) Take off the cup holder from the right side of the treadmill (Figure A).
- 4) Use a 6 mm Allen wrench to remove one screw and take off the plastic hand rail (Figure B).



FIGURE A



FIGURE B

- 5) Remove the 5 Phillips screws and remove the right side upper plastic cover (Figures C, D, & E).



FIGURE C



FIGURE D



FIGURE E

- 6) Cut the wire ties and begin to unthread the console cable (Figures F & G).



FIGURE F



FIGURE G

9.13 CONSOLE MAST ARM REPLACEMENT - CONTINUED

- 7) Remove the screws holding the console frame to the mast arms with a 6 mm Allen wrench in the openings with arrows (Figure H).
- 8) Lift the frame from the mast arms and set it aside (Figure I).



FIGURE H



FIGURE I

- 9) Use a 6 mm Allen wrench to remove the lower mast arm mounting screws (Figure J).
- 10) Pull the mast arm from the side of the machine (Figure K).



FIGURE J



FIGURE K

- 11) Reverse Steps 1-10 to install a new console mast. **NOTE:** If replacing the right side mast arm, the console cable must be threaded through it prior to it being mounted to the frame.

9.14 CONSOLE CABLE REPLACEMENT

- 1) Turn off power and disconnect the cord from the machine.
- 2) Remove the console as outlined in Section 9.12.
- 3) Take off the cup holder from the right side of the treadmill (Figure A).
- 4) Use a 6 mm Allen wrench to remove one screw and take off the plastic hand rail (Figure B).



FIGURE A



FIGURE B

- 5) Remove the 5 Phillips screws and remove the right side upper plastic cover (Figures C, D, & E).



FIGURE C



FIGURE D



FIGURE E

- 6) Cut the wire ties and begin to unthread the wire harness (Figures F & G).



FIGURE F



FIGURE G

9.14 CONSOLE CABLE REPLACEMENT - CONTINUED

7) Remove the spiral protective wrap from the top and bottom portions of the wire harness (Figures H & I).



FIGURE H



FIGURE I

8) Attach a pulling wire to the top of the defective console cable (Figure J).

9) Slowly remove the defective console cable starting at the bottom of the machine and pulling it down to the motor compartment (Figure K).



FIGURE J



FIGURE K

10) Connect the new console cable at the motor tray - 4 connections total. Figures L & M show 2 of these connections, the 3rd is the coax cable.

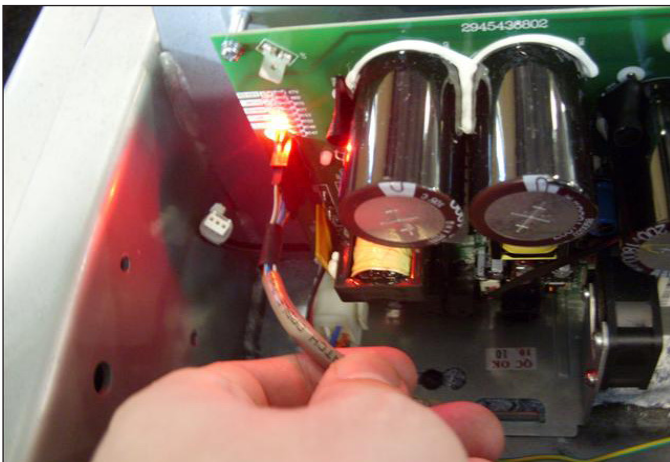


FIGURE L

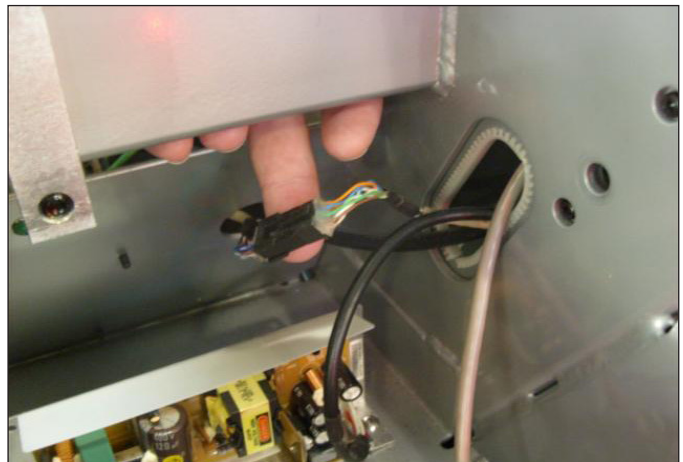


FIGURE M

11) Attach the new console cable to the pulling wire and gently pull the new cable up through the machine. **NOTE:** Once the wire is in place, reinstall the spiral wrap and wire ties.

12) Reverse Steps 1-7 to finish installing a new console cable.

13) Auto Calibration must ALWAYS be run after the installation of a new console cable (see Section 3.4).

9.15 HANDLE BAR SERVICE

- 1) Turn off the power and disconnect the cord from the machine.
- 2) All items on the handle bar are removed using a Phillips screwdriver from the underside of the bar.
- 3) Once the screws are removed, lift the part carefully and disconnect any wire connections to fully remove the handle bar.
- 4) Replace the parts as needed on handle bar including the Quick Start Key, Resistance and Incline Toggles, and the Heart Rate Grip Plates (Figures A-F).



FIGURE A



FIGURE B

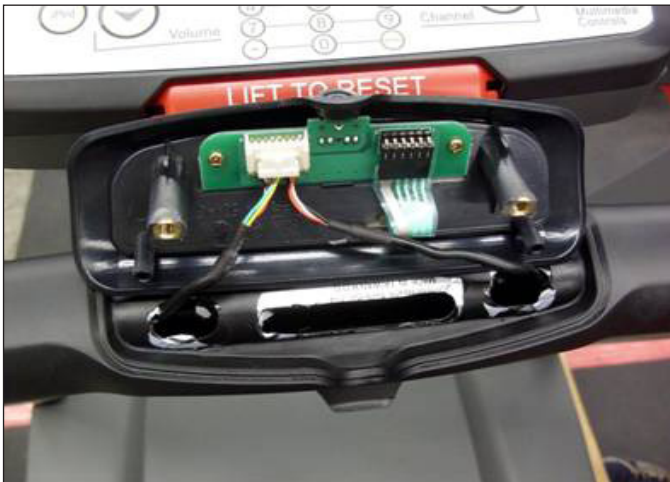


FIGURE C



FIGURE D



FIGURE E



FIGURE F

9.16 EMERGENCY STOP SWITCH REPLACEMENT

- 1) Turn off power and disconnect the cord from the machine.
- 2) Remove the console as outlined in Section 9.12.
- 3) Use a Phillips screwdriver to remove two screws, one from each side of the red button (Figure A).
- 4) Lift the button from bracket by pulling one side out at a time (Figure B).



FIGURE A



FIGURE B

- 5) Use a Phillips screwdriver to remove two screws, one from each side of the mounting bracket (Figure C).
- 6) Turn the bracket and use a straight screwdriver or pliers to compress each end of the switch and release it from the bracket (Figures D & E).



FIGURE C

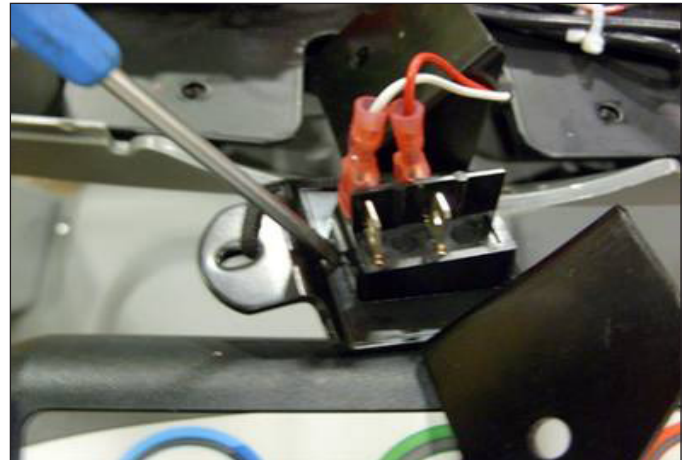


FIGURE D



FIGURE E

- 7) Reverse Steps 1-6 to install a new emergency stop switch. **NOTE:** Make sure the new switch has the same orientation as the old one when installing, and that the wires are properly connected.

9.17 HEART RATE BOARD REPLACEMENT

- 1) Turn off power and disconnect the cord from the machine.
- 2) Remove the console as outlined in Section 9.12.
- 3) The Heart Rate Board is located in front of the red Emergency Stop button (Figure A).
- 4) Disconnect the wires from each side of the Heart Rate Board (Figure B).

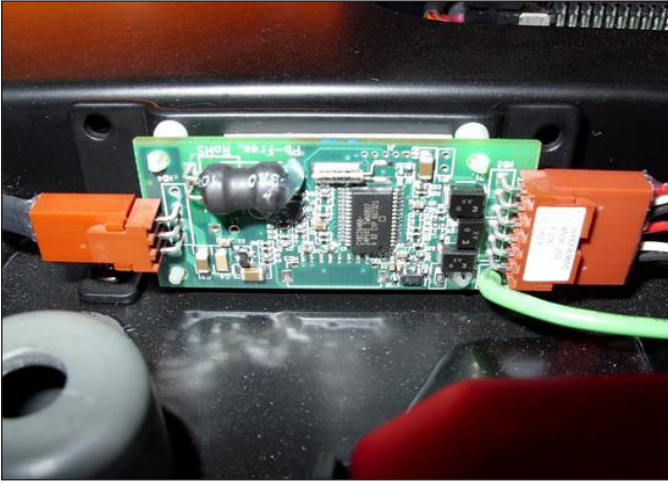


FIGURE A



FIGURE B

- 5) Use a Phillips screwdriver to remove two screws, one from each side of the Heart Rate Board mounting bracket (Figure C).



FIGURE C

- 6) Reverse Steps 1-5 to install a new heart rate board. **NOTE:** Be sure to fully seat the wires on the new heart rate board and test the grips after the console is reinstalled.

9.18 BLOWER MOTOR REMOVAL

- 1) Turn off power and disconnect the cord from the machine.
- 2) Remove the console as outlined in Section 9.12.
- 3) Lay the console face down and remove the four screws using a Phillips screwdriver (Figure A).
- 4) The console shell will now separate. Unplug the wire connections from the main circuit board to completely split the front and rear sections (Figure B).



FIGURE A



FIGURE B

- 5) Use a Phillips screwdriver to remove the two screws and washers holding the blower motor in place (Figure C).
- 6) Carefully separate the blower motor from the duct and remove it (Figure D).



FIGURE C

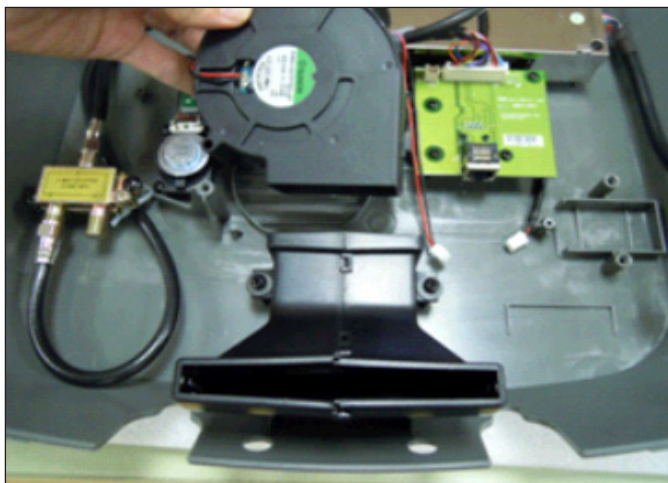


FIGURE D

- 7) Reverse Steps 1-6 to install a new blower motor. **NOTE:** Be sure to test the blower motor once the console is reinstalled.

9.19 OVERLAY / KEYPAD REPLACEMENT

- 1) Turn off power and disconnect the cord from the machine.
- 2) Remove the console as outlined in Section 9.12.
- 3) Remove the back cover of the console (Figure A).
- 4) Unplug and remove the faulty overlay / keypad (Figure B).



FIGURE A

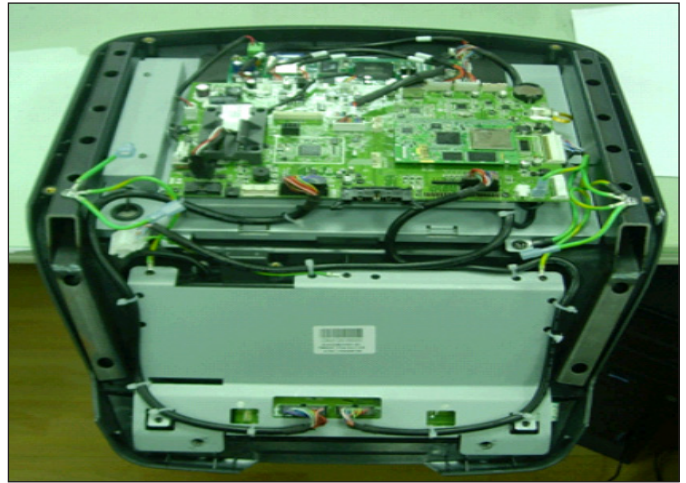


FIGURE B

- 5) Clean the area with alcohol to remove any left over adhesive (Figure C).
- 6) Peel part of the protective film from the new overlay / keypad (Figure D).



FIGURE C



FIGURE D

9.19 OVERLAY / KEYPAD REPLACEMENT - CONTINUED

- 7) Push the overlay / keypad ribbon cable through the hole in the console and plug it in (Figure E).
- 8) Match the overlay / keypad to the cutout on the console (Figure F).



FIGURE E



FIGURE F

- 9) Press down on the corners of the new overlay / keypad to keep it in place, and then remove the protective film (Figure G).
- 10) Once the overlay / keypad is in the correct position, press down on the overlay / keypad to adhere it in place (Figure H).



FIGURE G



FIGURE H

- 11) Follow the same procedure to replace any additional faulty overlays. **NOTE:** Overlays can not be reused.


















CHAPTER 10: TREADMILL SPECIFICATIONS AND ASSEMBLY GUIDE

10.1 TREADMILL SPECIFICATIONS

FEATURES	
Deck Type	Ultimate Hard-Wax reversible 1" deck
Belt Type	Habisat - 2 ply commercial grade
Running area	60" x 22"
Deck Step Height	9.5"
Cushion System	Ultimate Deck Cushioning System
Incline Range	0 - 15% (1,300 lb thrust incline motor)
Speed Range	0.5 - 15 mph / 0 - 24 km/h
Contact HR Sensors	Yes
Telemetric HR Receiver	Yes
Transport Wheels	Yes
DRIVE SYSTEM	
Motor	Matrix 5.0 hp AC Dynamic Response Drive System
Motor Controller	Delta AC Drive
CONSOLE	
Display Type	15" Touch Screen LCD
Display Feedback	Time, Distance (kilometers or miles), Calories, Calories per Hour, Speed, Incline, Pace, Heart Rate, METS, Watts, Dynamic Profile Display, Static Profile Display.
User Defined Multi Language Display	Yes - English, German, French, Italian, Spanish, Dutch, Portuguese, Chinese, Japanese.
Workouts	Manual, Rolling Hills, Fat Burn, 5K, Target HR, Gerkin Protocol, Army PFT, Navy PRT, Marine PFT, Air Force PRT, Physical Efficiency Battery (PEB).
One-Button Quick Start	Yes
CSAFE, FitLinxx ready	Yes
Pause Function	Yes
On-the-fly program change	Yes
Fit Touch Technology	No
Integrated Vista Clear Digital Ready Television	Yes - 15" screen size.
Wireless Data Transmitter	Yes
iPod Compatible	Yes
Personal Fan	Yes
Crossbar Controls	Quick Start, Stop, Cool Down, Speed and Incline Control
Manager Mode	Re-settable defaults with accumulated time and distance.
TECH SPECS	
Overall Dimensions	84"L x 33.25"W x 58"H
Maximum User Weight	400 lbs / 181.4 kg
Weight	378 lbs / 171 kg
Shipping Weight	487 lbs / 221 kg
Electrical Receptacle & Plug	NEMA 5-20R 120V
Electrical Receptacle & Plug	NEMA 6-20R 220V
Electrical Requirements	120 volt 20 amps-dedicated circuit required-non-looped grounded
Electrical Requirements	220 volt 10 amps-dedicated circuit required-non-looped grounded

CHAPTER 10: TREADMILL SPECIFICATIONS AND ASSEMBLY GUIDE

10.2 FASTENERS AND ASSEMBLY TOOLS

	Part #:	Part Name:	Outline:	Dimensions:	Quantity:	Bag Color:
10	020090-00	Socket head cap screw		M8 x 20mm	10	Black
14	0000086571	Flat Washer		6.2 x 12 x 1.6	10	Black
20	0000084935	Left Connection Bracket		SPHC 4.0T	1	
21	0000084936	Right Connection Bracket		SPHC 4.0T	1	
11	004541-AC	Socket Head Cap Screw		M8 x 1.25P x 45 mm	2	White
12	035882-AB	Socket Head Cap Screw		M8 x 1.25P x 75 mm	4	White
14	0000086571	Flat Washer		6.2 x 12 x 1.6T	6	White
17	004539-AD	Socket Head Cap Screw		M8 x 1.25P x 25mm	2	Blue
19	0000088905	Spacer		6.2 x 12.0 x 1.6	2	Blue
15	004859-AC	Button Socket Head Cap Screw		M8 x 1.25 x 20 mm	6	Red
14	0000086571	Flat Washer		6.2 x 12 x 1.6T	6	Red
13	020072-00	Socket Head Cap Screw		M8 x 1.25 x 60mm	4	Yellow
16	062769-00	Socket Head Cap Screw		M8 x 1.25 x 15mm	2	Yellow
23	0000089835	Ribbed Lock Washer		8.5 x 12.8 x .8/1.3H	6	Yellow
22	0000086284	Power Cord Holder		SPHC 1.6	1	Green
	002153-C	Power Cord			1	Green
18	004386-00	Button Head Screw		6.2 x 12.0 x 1.6T	2	Green

10.3 ASSEMBLY INSTRUCTIONS

ATTENTION

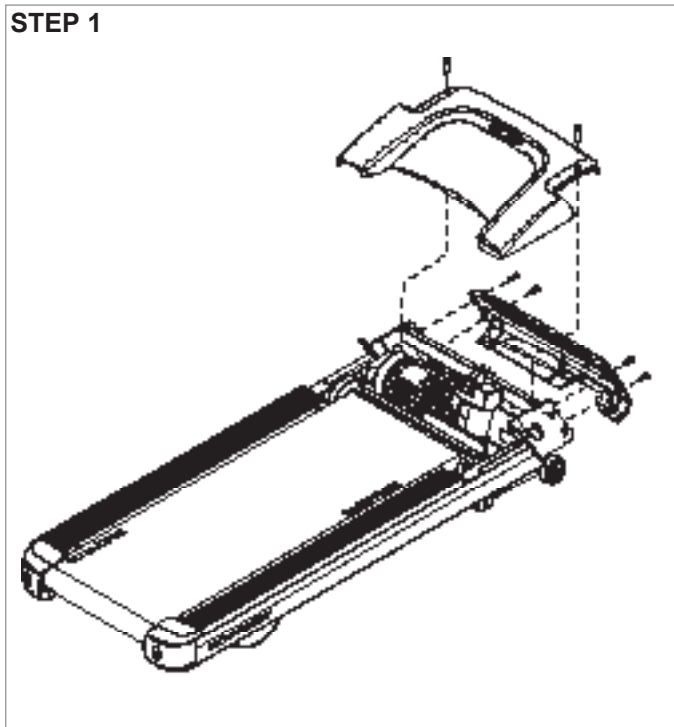
After assembly and installation is complete, the treadmill will need to be calibrated using the auto-calibration procedure outlined in Section 3.5. **DO NOT stand on the belt while the auto-calibration sequence is in progress.**

Prior to assembling the treadmill, unpack all of the contents of the box and make sure that all necessary components are present. Review the contents of the hardware package for completeness. Contact Matrix customer service at 866.693.4863 to report any missing items.

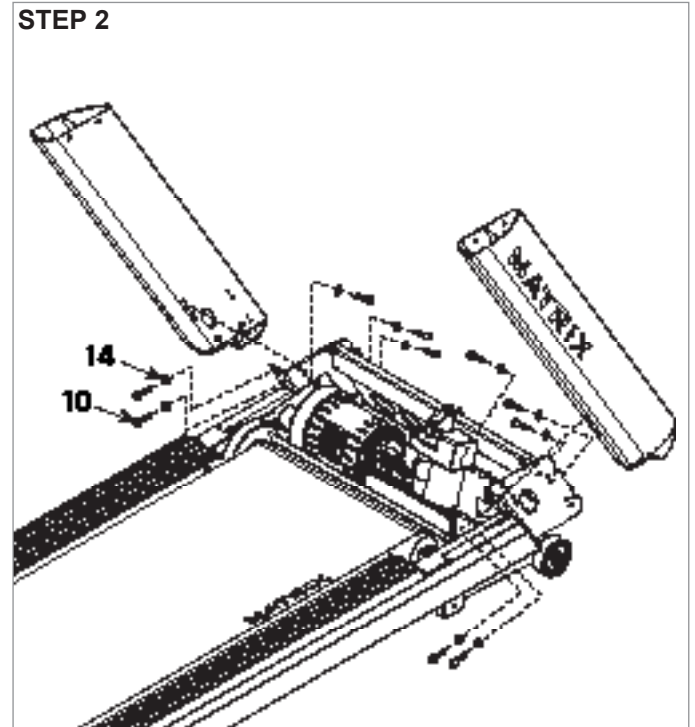
ASSEMBLY INSTRUCTIONS

Please make sure that the power cord is not plugged into the wall outlet while completing the following procedure.

To ensure correct assembly of the treadmill, carefully read and follow these steps:



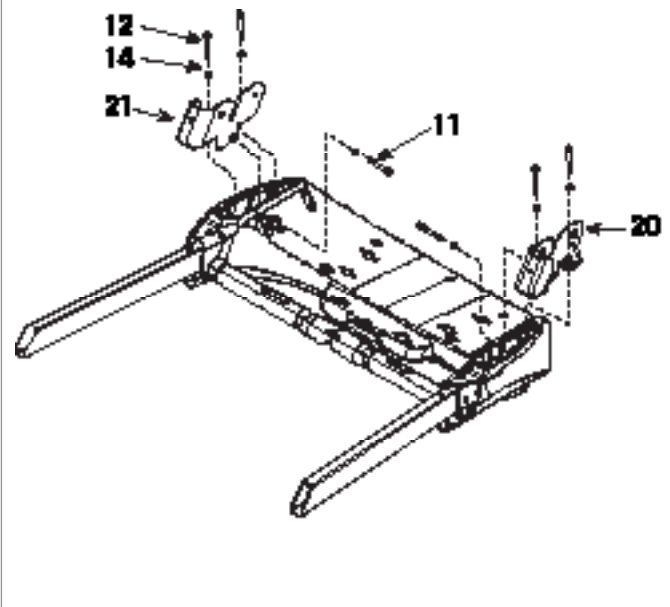
Remove the motor cover(s) and set aside. The motor cover(s) need to be removed to gain access to the motor compartment so that wire harness connections can occur.



Open Black Assembly Bag. Assemble both the left and right console masts to the treadmill base using item 10 socket head cap screw and item 14 washer.

10.3 ASSEMBLY INSTRUCTIONS - CONTINUED

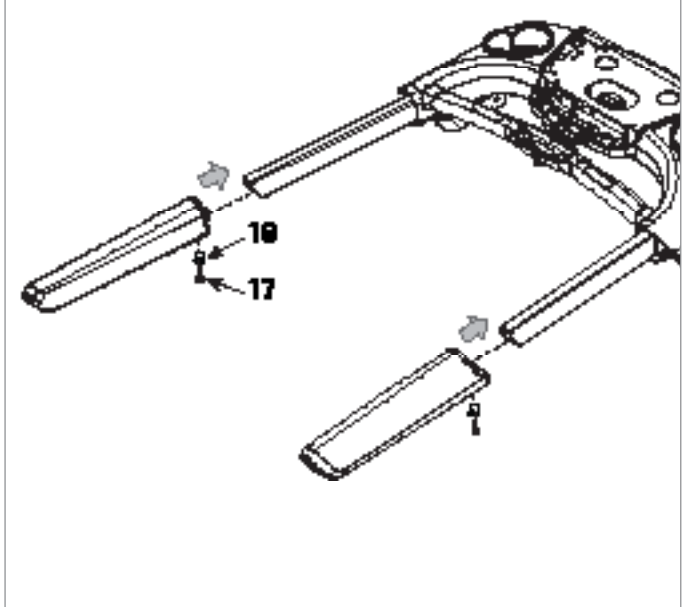
STEP 3



Open White Assembly Bag. Assemble the left and right bracket (items 20 and 21) to the console base using item 12 socket head cap screw, item 14 flat washer and item 11 socket head cap screw.

Assembly Tip: It is much easier to accomplish this task if the console base is left inside its shipping container.

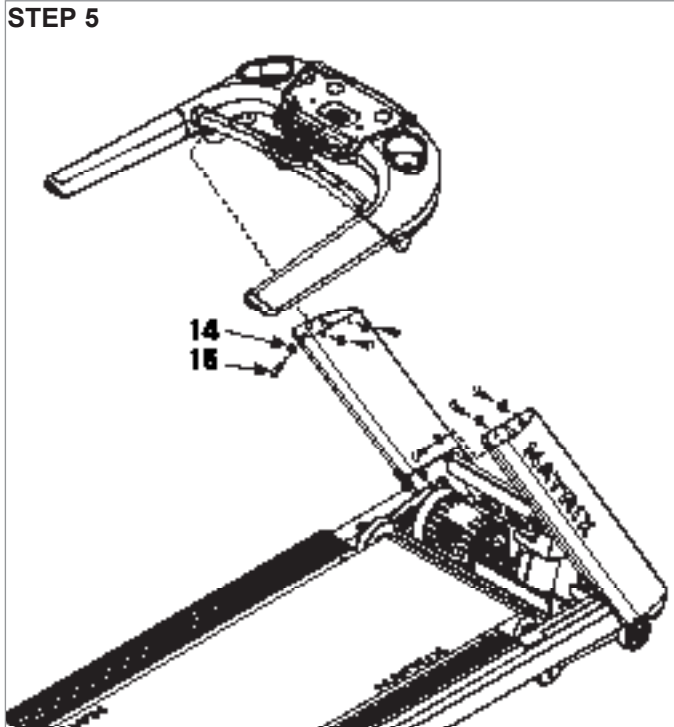
STEP 4



Open Blue Assembly Bag. Slide the urethane arms over the steel tubes on the console base. Fasten the urethane arms to the steel tubes using item 17 socket head cap screw and item 19 spacer.

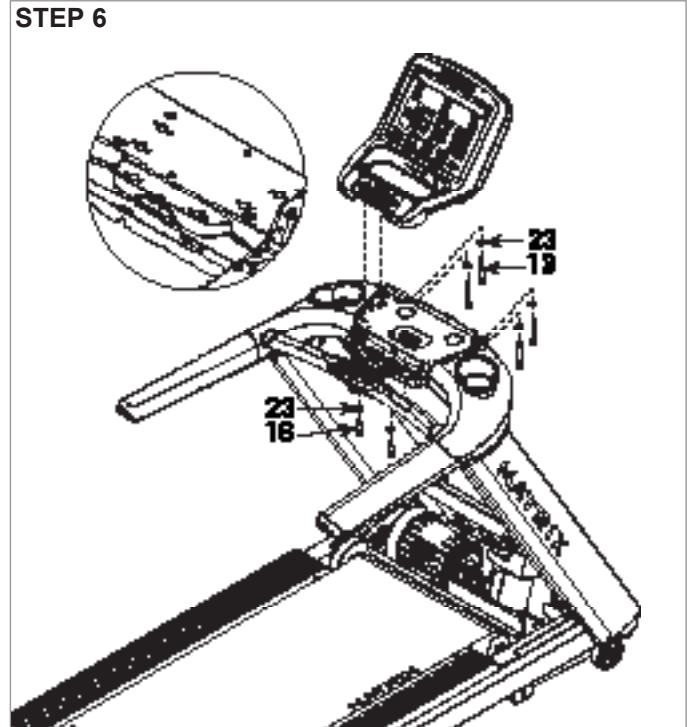
10.3 ASSEMBLY INSTRUCTIONS - CONTINUED

STEP 5



Open Red Assembly Bag. Assemble the console base to the console masts using item 15 button head cap screw and item 14 flat washer. Be sure to route the console cables down the console mast through the larger opening in the mast which is closest to the running belt. Make all appropriate wire connections within the motor compartment.

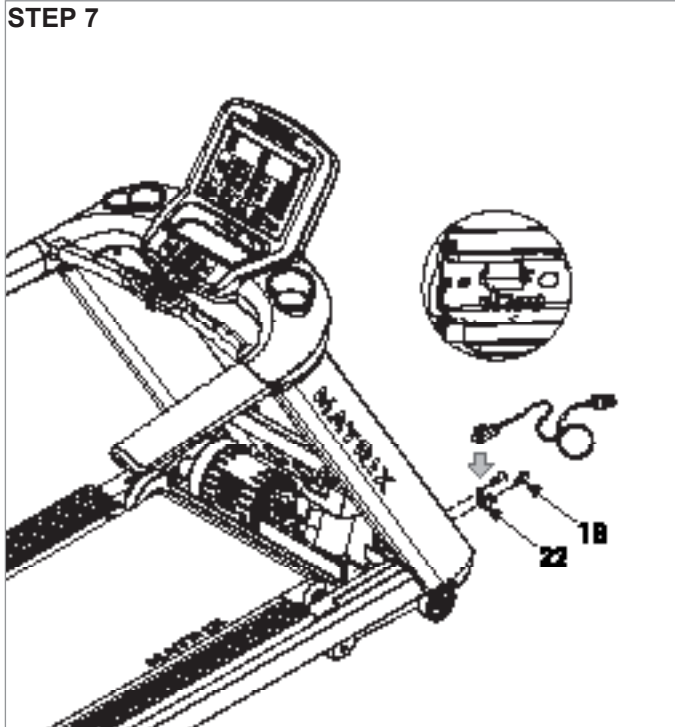
STEP 6



Open Yellow Assembly Bag. Make appropriate wire connections to the faceplate and then assemble to the console base using item 13 socket head cap screw, item 23 lock washers, and item 16 socket head cap screw. Item 16 is a shorter socket head cap screw and gets assembled into the holes closest to the running surface. All holes applicable to the assembly step can be noted by the embossed arrow next to the hole.

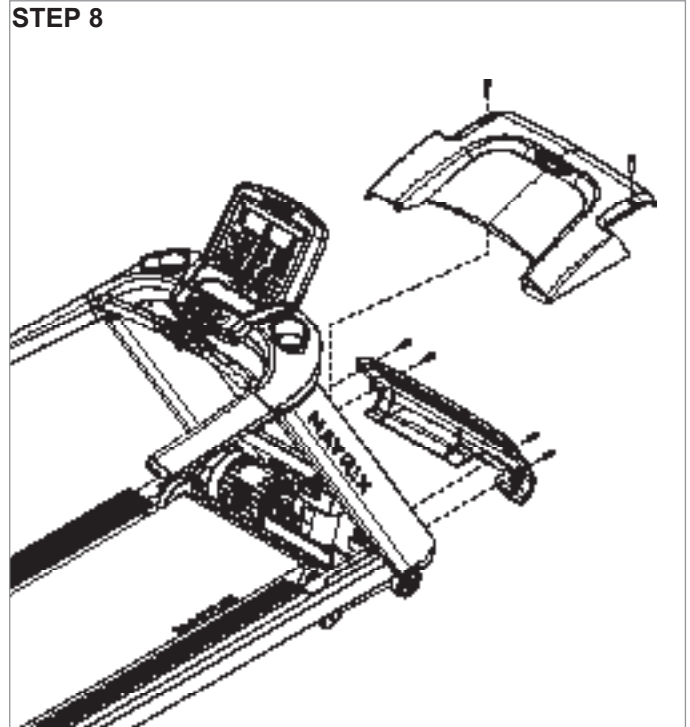
10.3 ASSEMBLY INSTRUCTIONS - CONTINUED

STEP 7



Open Green Assembly Bag. Install the power cord and assemble item 18 power cord holder with item 22 button head screw. If your hardware pack is missing item 22, check to see if the screws are already assembled on the treadmill.

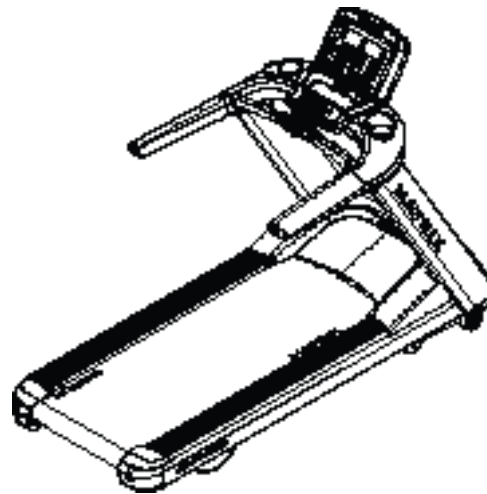
STEP 8



Replace the motor cover(s) and power the treadmill on. The power button is located next to the power cord inlet.

ASSEMBLY COMPLETE

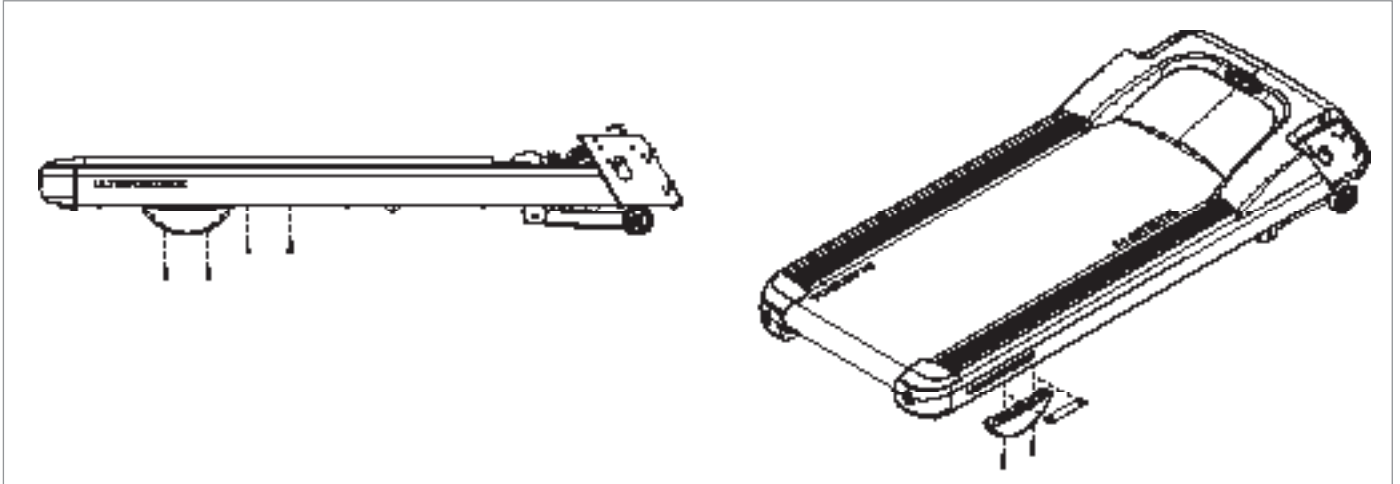
Assembly is complete, the running belt should be adjusted as needed and the auto calibration sequence must now be run as outlined in Sections 3.5 and 3.6. Also the treadmill should be leveled and the console and platform serial numbers should be entered into the console as outlined in Section 10.4 and 10.5.



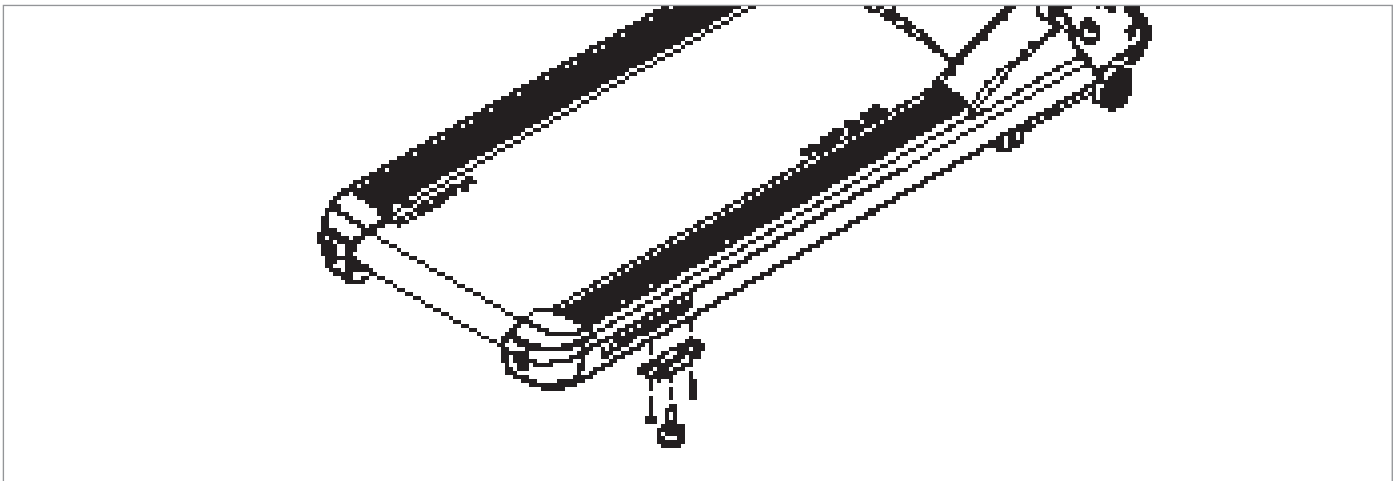
10.4 LEVELING THE TREADMILL

OPTIONAL LEVELING ASSEMBLY TECHNIQUES: USE OF SHIM OR BY ADDING A LEVELING FOOT.

Note: It is extremely important that the levelers are correctly adjusted for proper operation. An unbalanced unit may cause belt misalignment or other issues. Use of a level is recommended.



Remove the leveling shim provided on the underside of the treadmill. The shim can be found mounted on the underside of the right hand side rail. Remove the rear foot on the side of the treadmill that is resting low. Install the shim as shown above and return the rear foot.



When installing the optional rear leveling foot accessory, remove the existing rear foot. Replace with new leveling foot and fasten to the frame using the existing fasteners that held in the half-moon foot.

10.5 ENTERING THE SERIAL NUMBER INTO THE CONSOLE

ONCE INSTALLATION IS COMPLETE, THE CONSOLE AND PLATFORM SERIAL NUMBERS SHOULD BE ENTERED INTO THE CONSOLE.

- 1) Press ENTER, 3, 0, 0, 1, ENTER on the number keypad and Service Mode will appear on the display.
- 2) Press Serial Number on the display.
- 3) Choose Platform (Figure A) or Console (Figure B).
- 4) Enter the serial number of the console or platform using the number keypad. Only the final 9 digits of the serial number should be entered.
- 5) Repeat this procedure so that both the console and platform serial numbers are entered.
- 6) Press the EMERGENCY STOP or the HOME key to return to normal function.

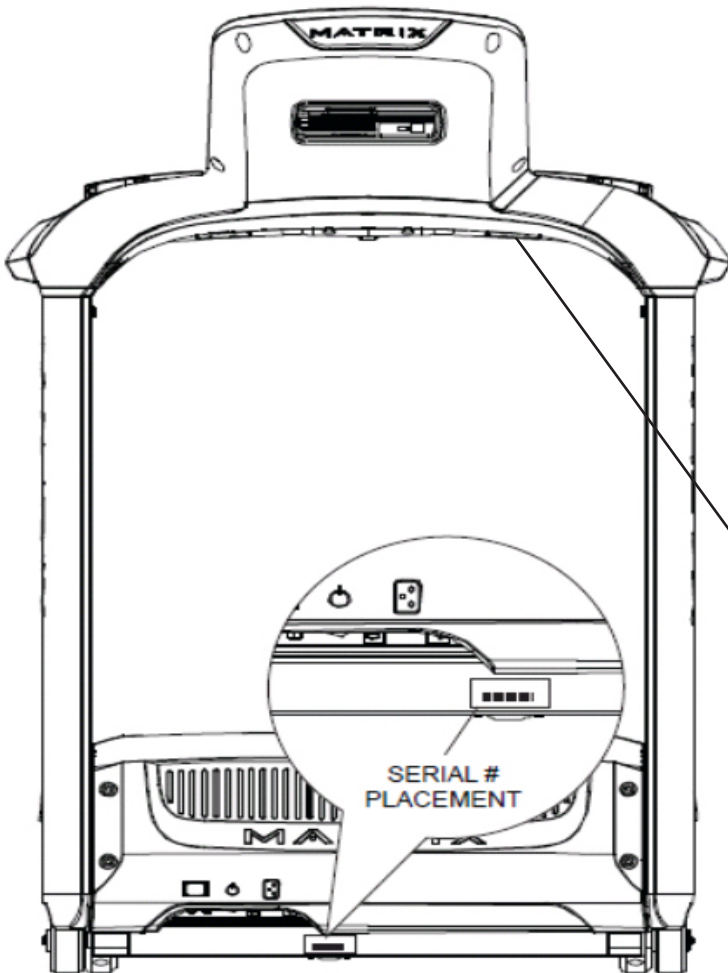


FIGURE A



FIGURE B

10.6 TV PROGRAMMING INSTRUCTIONS

Once the cardio equipment has been installed, and proper power and cable wiring is provided, The Television must be programmed to the club's channels and settings.

Auto Scan - An auto scan will search for channel signals from the coax cable. It will tune in all channels that provide a signal.

1. Press ENTER, 1, 0, 0, 1, ENTER on the number keypad to enter Manager Mode.
2. Press TV on the display (Figure A).
3. Press SETUP on the display. A TV will appear in the top right corner (Figure B).



FIGURE A



FIGURE B

4. Press the - key on the number keypad and a Menu will appear on the TV (Figure C). **NOTE:** Once the Menu is present on the screen, the following buttons must be pressed quickly, or the Menu will minimize after 5 seconds of no key strokes.
5. Use the VOLUME UP or DOWN keys to move horizontally in the Menu and the CHANNEL UP and DOWN keys to move vertically.
6. Use the VOLUME UP or DOWN keys to scroll the cursor to Channel on the top right of the Menu (Figure D).



FIGURE C



FIGURE D

7. Use the CHANNEL UP or DOWN keys to scroll down to Auto Scan, then press the VOLUME UP or DOWN keys to enter the Channel Scan sub-menu (Figure E).
8. Use the CHANNEL UP or DOWN keys to scroll to Start To Scan, then press the VOLUME UP or DOWN keys to start the channel scan (Figure F).



FIGURE E



FIGURE F

10.6 TV PROGRAMMING INSTRUCTIONS - CONTINUED

Auto Scan (continued):

9. If the channels are not coming in clearly after a channel scan (or if only some channels come in), follow Steps 4-7 to enter the Auto Scan sub-menu. Use the VOLUME UP or DOWN keys to change the Cable System to match the club's incoming frequency (Figure G), then re-run Auto Scan.

10. If the channels are coming in clearly, press the HOME key to return to normal function (Figure H). If some channels are still not coming in, are blurry, or are not scanning, follow the procedure below for adding / deleting a single channel. If no channels are coming in, see the troubleshooting in Chapter 2.



FIGURE G



FIGURE H

Adding or Deleting a Single Channel - At times the Channel Scan can pick up channels that do not have a strong enough signal to come in clearly or will fail to pick up channels that do come in clearly. Use the following procedure to manually add or delete a channel.

1. Follow Steps 1-4 in the Auto Scan instructions to access the TV Menu.
2. Use the VOLUME UP or DOWN keys to scroll to Channel on the top right of the Menu.
3. Use the CHANNEL UP or DOWN keys to scroll to Show / Hide (Figure I). Then use the VOLUME UP or DOWN keys to enter the Show / Hide sub-menu.
4. The Show / Hide sub-menu will show a list of channels available (Figure J). Channels with a check mark are scanned in and should show up during normal TV usage.
5. To remove or add any channel, simply scroll to the channel using the CHANNEL UP or DOWN keys, and then press ENTER to add or delete a check mark (which adds or deletes the channel).
6. Once the desired channels are scanned in, press HOME to return to normal operation.



FIGURE I



FIGURE J

10.6 TV PROGRAMMING INSTRUCTIONS - CONTINUED

Closed Caption - Clubs will vary on whether they request the closed caption to be turned off or on. Please discuss this option with the club manager prior to adjusting this setting.

1. Press ENTER, 1, 0, 0, 1, ENTER on the number keypad to enter Manager Mode.
2. Press TV on the display (Figure K).
3. Press SETUP on the display. A TV will appear in the top right corner (Figure L).



FIGURE K



FIGURE L

4. Press the - key on the number keypad and a Menu will appear on the TV (Figure M).
5. Use the VOLUME UP or DOWN keys to scroll the cursor to Setup on the Menu (Figure N).



FIGURE M



FIGURE N

6. Use the CHANNEL UP or DOWN keys to scroll the cursor to Closed Caption, then press the VOLUME UP or DOWN key to enter the Closed Caption sub-menu (Figure O).
7. Use the VOLUME UP or DOWN keys to toggle the CC Mode from ON to OFF or vice versa as needed (Figure P).
8. Press HOME to return to normal function.



FIGURE O



FIGURE P

11.1 SOFTWARE UPGRADE INSTRUCTIONS

- 1) Five files should be present on the USB drive. These are: DrummuDeploy.cab, NK, IO_XXX, updateLMM.config, and Extract_CE.
- 2) Turn on the power to the treadmill, wait until the standard display picture has come up (Figure A).
- 2) Enter Manager Mode by pressing ENTER, 1, 0, 0, 1, ENTER on the lower keypad.
- 3) Record the Accumulated Mileage, Accumulated Time, and Serial Number. **NOTE:** The information can be lost during the update procedure and should be recorded so that the information can be entered into the newly updated console.
- 4) Press the HOME key to return to the standard display picture.
- 5) Insert USB Drive 1 into the USB port in the console (Figure B).



FIGURE A



FIGURE B

- 6) After a few seconds, the treadmill will auto run the upgrade processing. The achieved percentage of the scheduled process will be displayed in the bottom right corner of the display (Figure C).
- 7) When the update is complete, the display will ask you to remove the USB drive (Figure D). Once the USB drive is removed, turn off the treadmill and wait 10 seconds, then turn the treadmill back on.
- 8) Enter Service Mode by pressing ENTER, 3, 0, 0, 1, ENTER on the lower keypad and enter the values recorded in Step 3 (if needed). Also check that the Machine Type is correctly set for treadmill and that the Service On Boot setting is NO.



FIGURE C

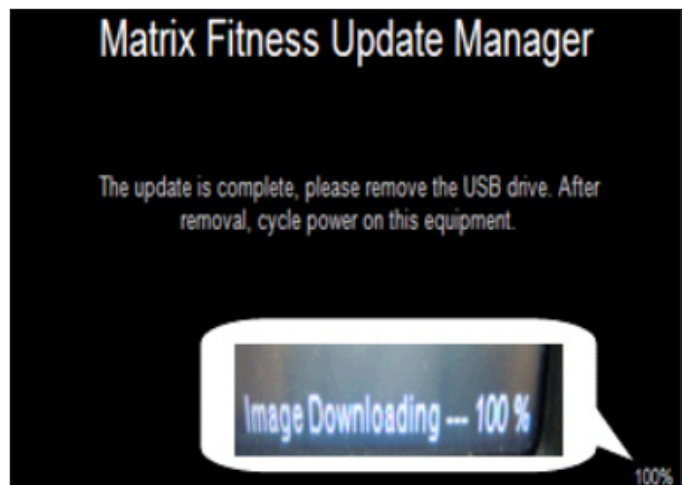


FIGURE D

NOTES



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