Johnson T7000 Pro Service Manual

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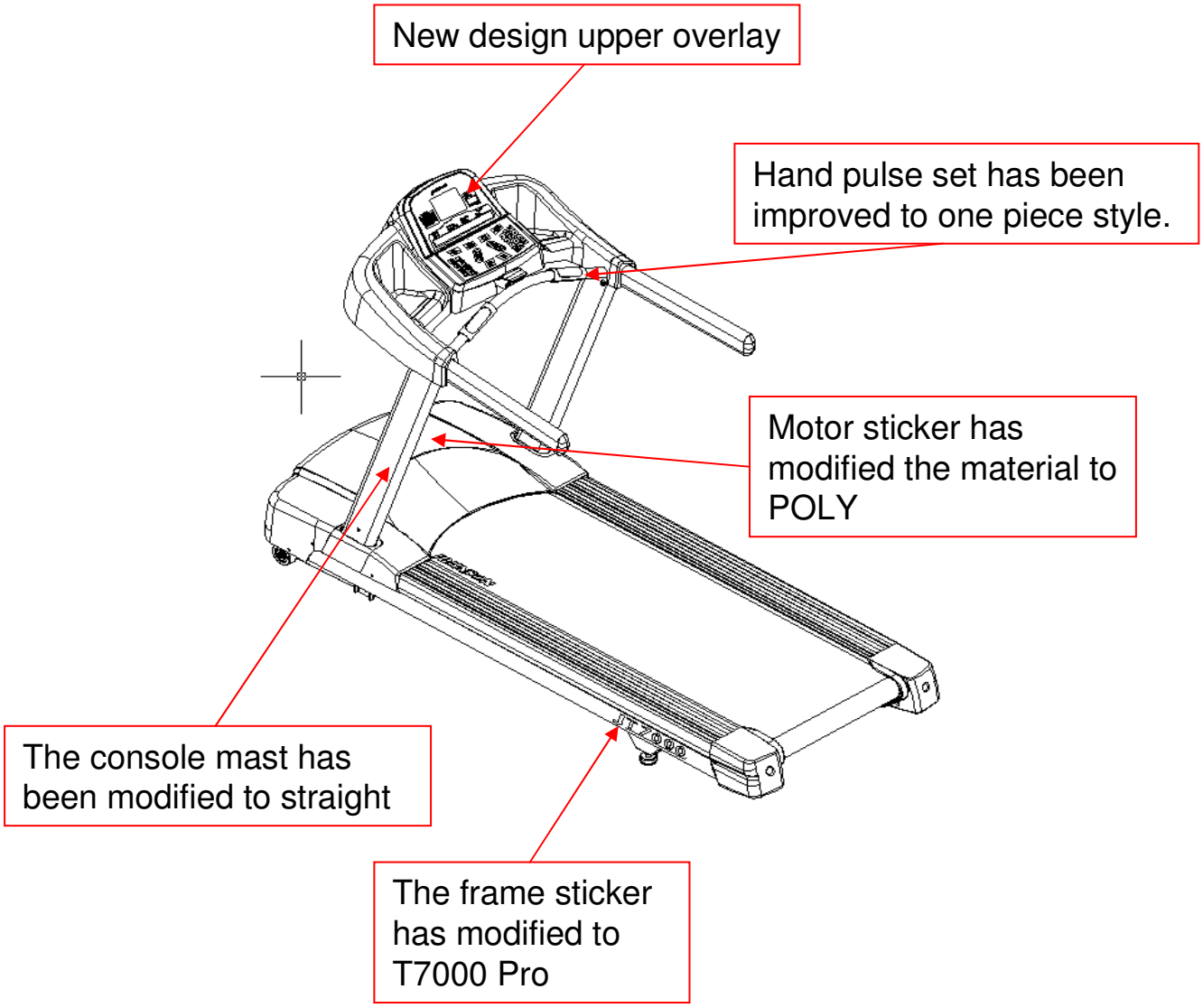
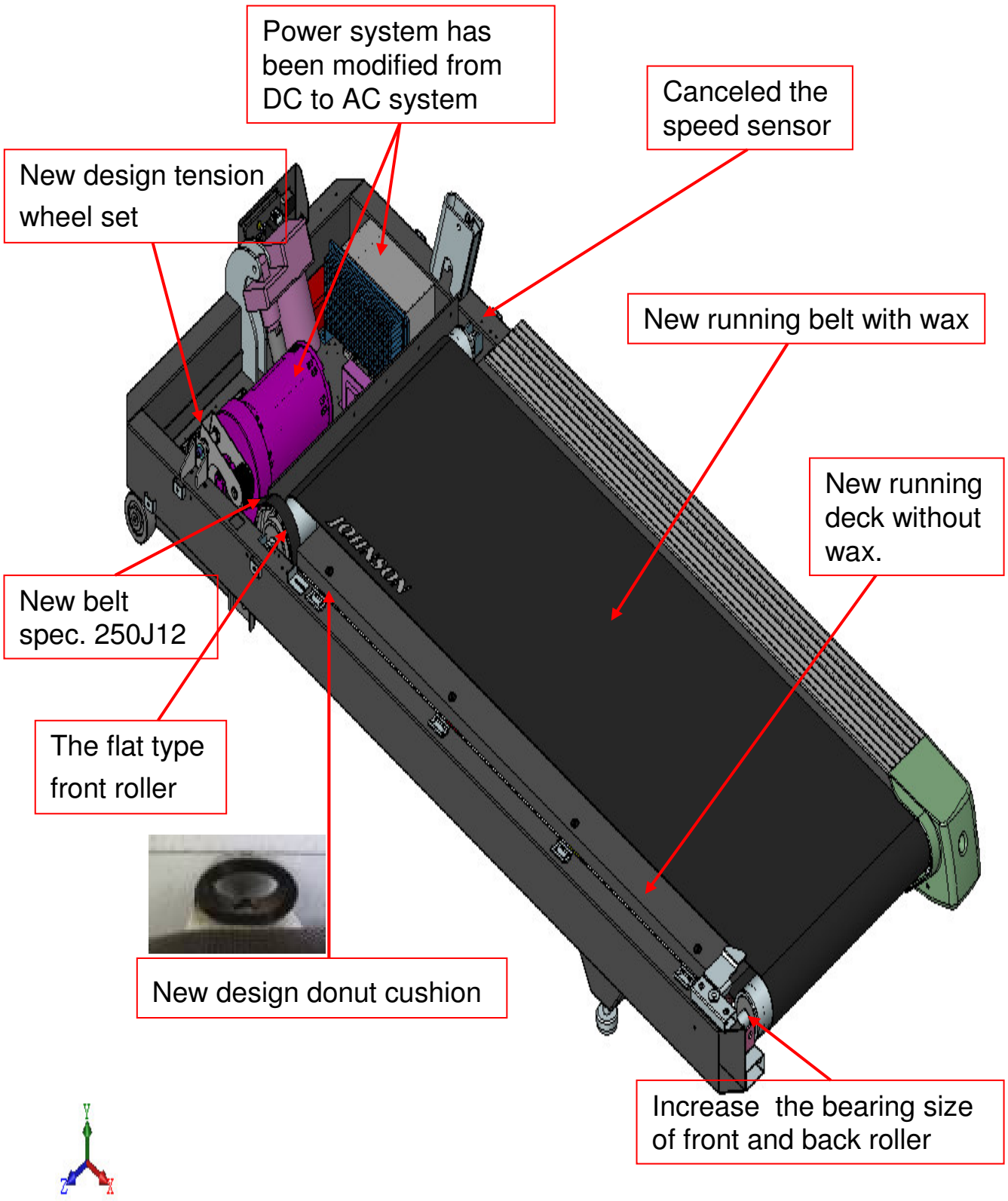
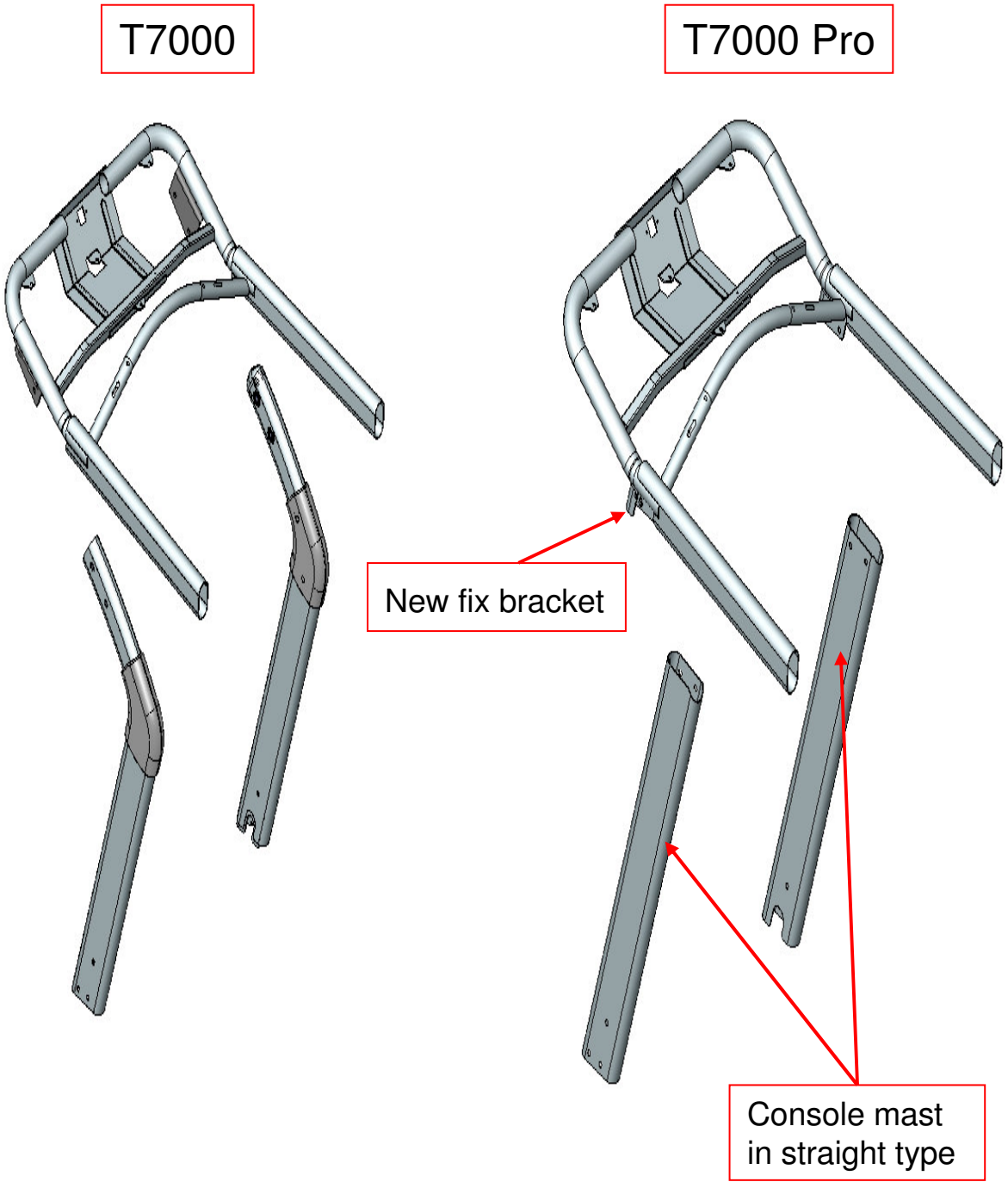


T7000 Pro vsT7000 internal design change



T7000 Pro vsT7000 console mast design change



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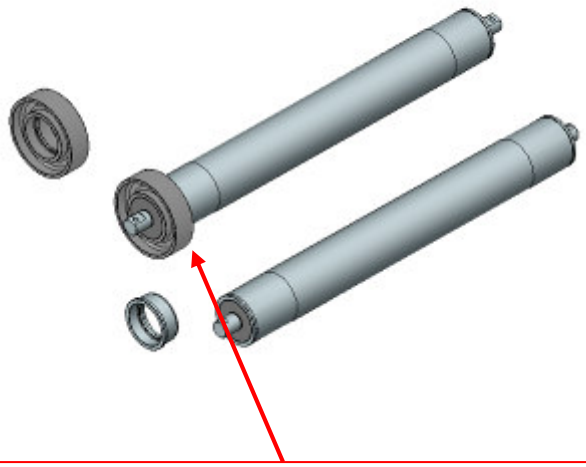


Flat type pulley and increase bearing size

SECTION 2
MAINTENANCE PROCEDURE

MAINTENANCE CHECK LIST

PREVENTIVE MAINTENANCE SCHEDULE

Johnson T7000 Pro TREADMILL

Item	***Daily***	***Weekly***	***Monthly***	***Quarterly***	***Biannual***	***Annual***
Console Mounting Bolts					Inspect	
Frame	Clean				Inspect	
Power Cord			Inspect			
Display Console	Clean		Inspect			
Handrail & Handlebar	Clean			Inspect		
Front Roller				Clean	Inspect	
Rear Roller				Clean	Inspect	
Emergency Button	Test					
Running belt Tension			Inspect			
V Belt				Clean	Inspect	
Running Deck			Inspect		Re-waxing	Flip
Running Belt					Inspect	
Control Box					Clean (Vacuum)	
Motor				Clean		

TENSIONING THE BELT PROCEDURE

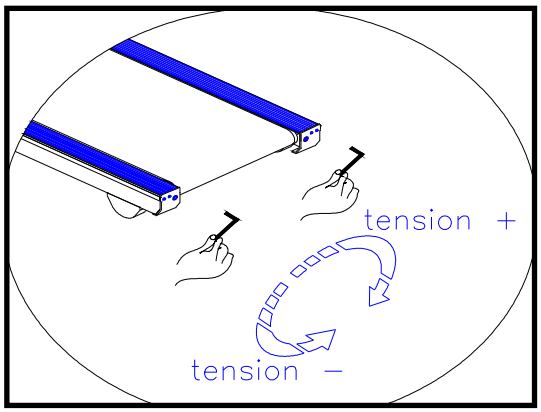
Frequency: Every 1 months

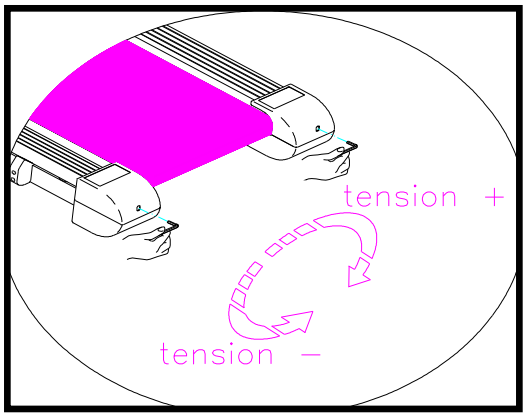
Caution:

Over-tightening of the roller will severely shorten the life of the belt and may cause further damage to other components.

Running Belt:

If when you plant your foot on the belt, you can feel a slipping sensation then the belt has stretched and is slipping across the rollers. This is a normal and common adjustment on a new treadmill. To eliminate this slipping, tension both the rear rollers Allen bolts **1/4 TURN** as shown above. Try the treadmill again to check for slipping. Repeat if necessary, but **NEVER TURN the roller bolts more than 1/4 turn at a time.**





Perfect Tension of Running Belt: 0.9~1.1 lbs

Drive Belt:

If you have tensioned the running belt and are still experiencing a slipping, adjust the tension screw of spring. Then try the treadmill again to check for slipping.

DECK RE-WAXING PROCEDURE

Purpose : To ensure the maximum life of your treadmill, follow these steps at regular intervals.

The timing of running belt and deck maintenance :

1. Each 6 months to lubricate by wax powder.
2. One year to flip the running deck.
3. Two years or over 6,000 hrs of usage to replace new running belt and deck.
4. In the regular maintain, If the motor over current that has to lubricate by wax powder

★ Take a motor current reading while a 70-90 kg user is walking on the machine at 5KM. If it is over limited current , wax the deck.

The limit current for each motor as below :

Motor type	Normal Current	Limited Current
220V DC	<9A	11A
110V DC	<15A	20A
220V AC	<5A	5.5A
110V AC		

Recheck the motor current as above –

If the motor current is still over limited current, Please flip the deck or replace the belt.

WAXING PROCEDURE:

1. Warm deck and belt by walking on treadmill for 3 or more minutes at a minimum speed of 3 mph (4.8 kph).
2. Turn off and unplug the treadmill.
3. Sprinkle approximately 1/2 scales of wax under the running belt. (It is useful to lightly blow the wax to the center of the belt.)
4. Turn the unit on and walk the wax in for 3-4 minutes at 1 mph. Walk all over the belt to ensure smooth wax distribution.
5. Once wax is walked into the belt and deck repeat procedure for checking the motor current to ensure that the belt and deck are not to worn for wax to improve the friction.

Be careful to monitor wax buildup on the rollers – too much wax can cause issues and technicians need to monitor the rollers if they continually wax units.

The wax powder set

Parts number : MTOOL-052

Price : US$ 30

Wax powder set including

1. **One big bottle with 1kg wax powder**
2. **A small bottle for maintenance.**

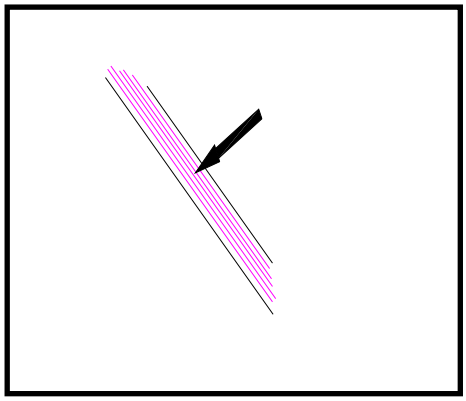
CLEAN THE GROOVES PROCEDURE

Frequency: Every 3 months

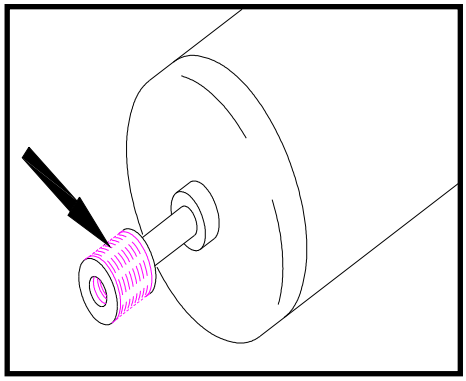
Caution:

If dirty grooves in the drive belt and motor, there will be noises while running.

Procedure:



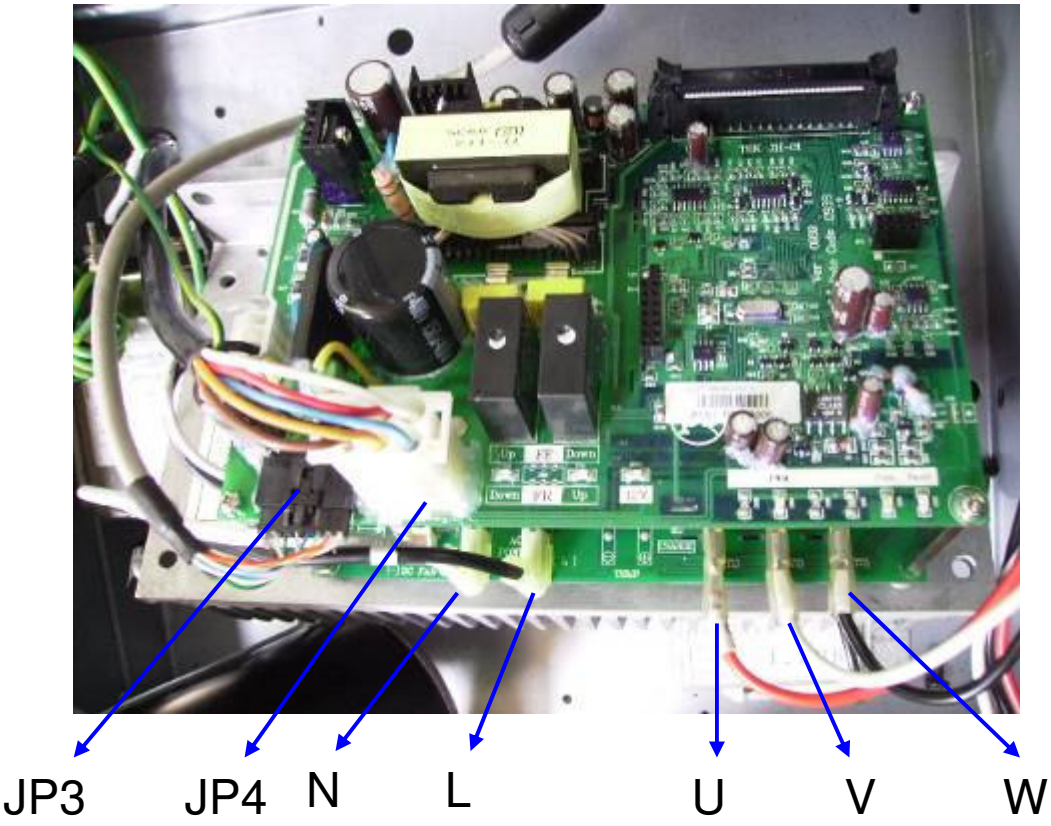
1.Remove the drive belt and check the grooves in belt for dirt or dust and clean it.



2.Check the grooves in motor pulley for dirt or dust and clean it

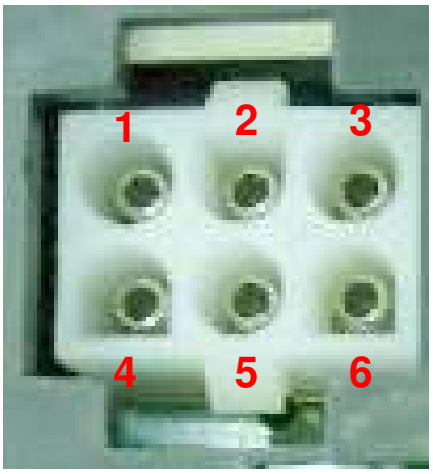
SECTION 3
WIRING DIAGRAM INSTRUCTION

T7000 Pro(TM512) MCB WIRING



- **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**

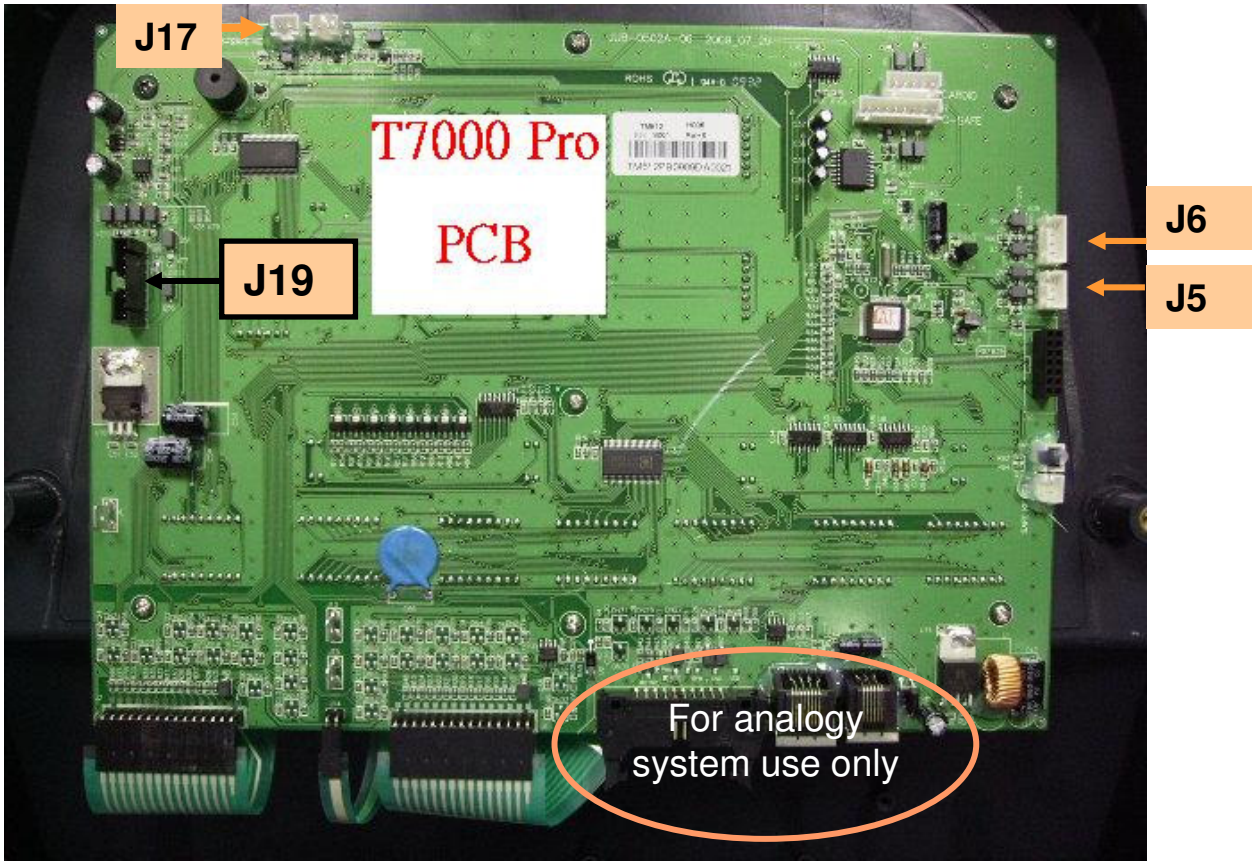
T7000 Pro(TM512) MCB WIRING DEFINITION OF PIN



JP4: Elevation cable(6pin/AMP-350762-4)

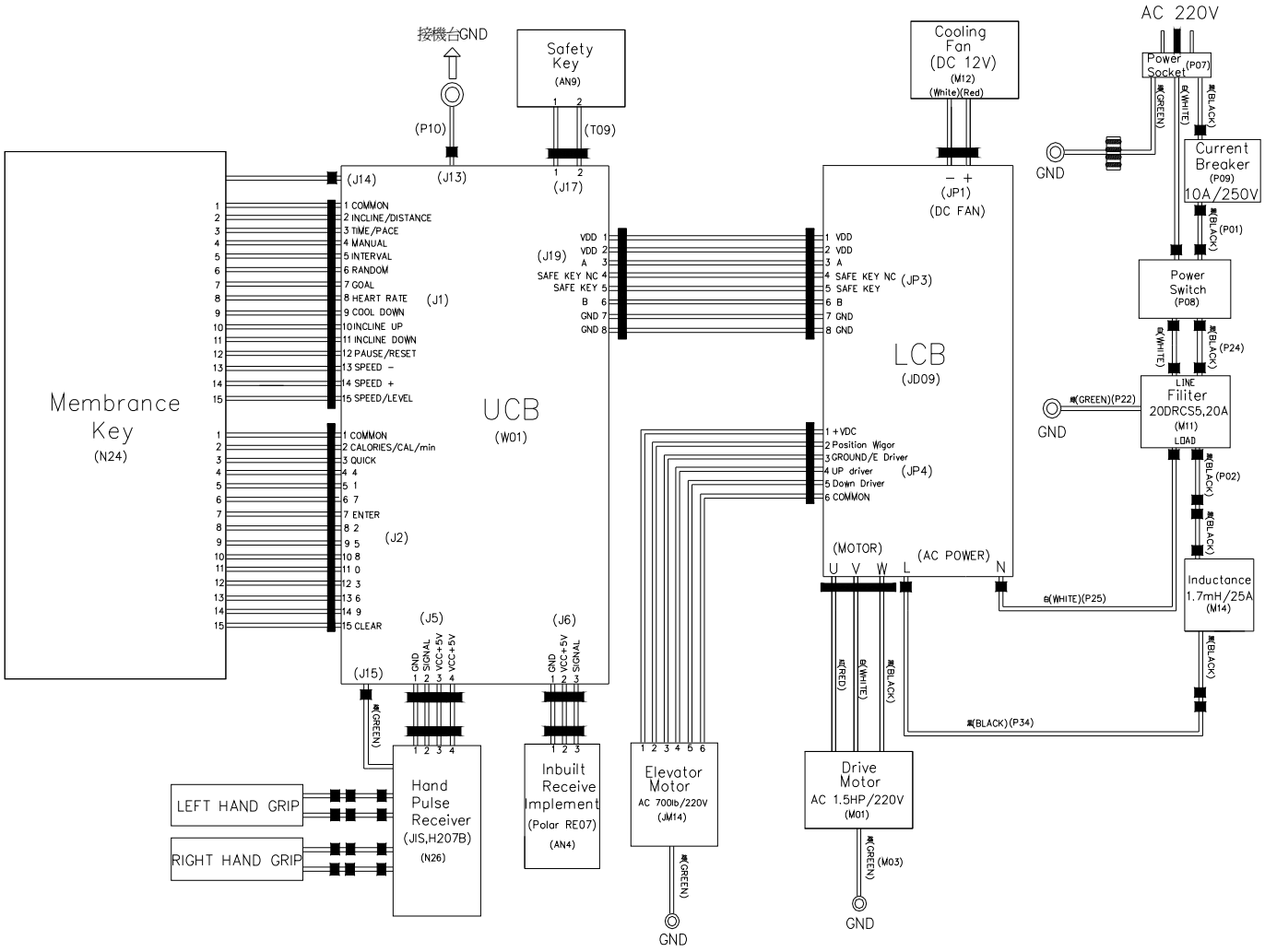
Pin	Name	Definition
1	+VDC	Incline place signal test power
2	Position	Incline place signal
3	Ground /E driver	Incline place signal test ground
4	UP driver	Incline motor does move to up
5	DOWN driver	Incline motor does move to down
6	COMMON	Incline motor does turn on power

T7000 Pro(TM512) PCB WIRING(FOR 110V / 220V)



- **J19------- Digital communication wire port**
- **J5--------- Hand Pulse receiver**
- **J6--------- inbuilt receive implement**
- **J17------- Emergency stop key**

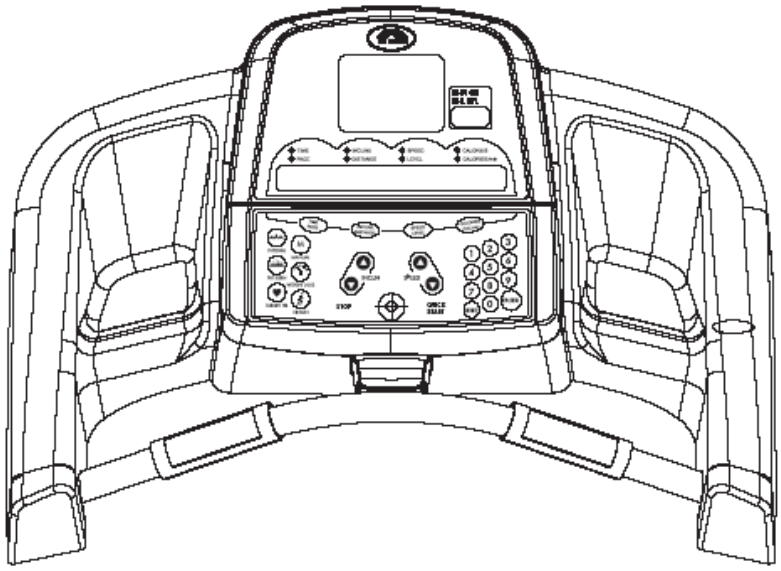
T7000 Pro(TM512) Electrical block diagram



SECTION 4
CONSOLE FUNCTIONAL FLOW DIAGRAM

OPERATING T7000 Pro

1. Without anyone standing on the treadmill, plug the power cord into a dedicated electrical outlet.
2. 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.
3. Run the treadmill by following the MESSAGE CENTRE instructions to press the Quick Program or Numeric keys for the program setting: Program, Level, Incline, Speed, Time, Weight, Age and Target Heart Rate.



• DISPLAY CONSOLE DESCRIPTIONS

1. **WORKOUT PROFILE WINDOW:** During a workout, intervals, hills and valleys appear in this window as rows of lights stacked in columns. The number of lit rows within a column corresponds to an incline percentage.
2. **MESSAGE CENTER:** This window displays step-by-step instructions for setting up a workout. During a workout, it displays Time, Pace, Speed, Distance, Incline, Level, Calories and Calories per minute.
3. **HEART RATE CENTRE:** This window displays your Actual and Target heart rate during the workout. The console displays a heart rate within 10 to 15 seconds of contact with the sensors or the use of a heart rate chest strap. In TARGET HEART RATE program, the inputted target heart rate willdisplay in the window every 60 seconds.

• FUNCTION OF KEYS:

"**Quick Start**": To start running the treadmill, the "Quick Start" function is the fastest way to begin a MANUAL workout immediately.

"**Stop**": Press the "Stop" key once to pause the program for 2 minutes. During the 2-minute pause, press the "Start" key to continue running the program, otherwise the machine will reset automatically. Press and hold down the "Stop" key to reset the treadmill.

"**Emergency Stop**": To stop all functions running.

"**INCLINE and SPEED ARROW keys**": Press these keys to increase or decrease the incline of the treadmill deck, or the speed.

"**Program Quick-Keys**": For quick exercise program selections.

"**Numeric Keys**": Press the numbers to input program Time, Weight, Level, Age, Target Heart Rate, Speed and Incline.

"**Enter**": To confirm each entry of workout setup values, as displayed in the MESSAGE CENTRE.

"**Reset**": To clear data not yet entered by the Numeric Keys numbers.

The Treadmill T7000 is equipped with a manual emergency stop system. Use either of the two features described below to stop the treadmill immediately.

1. A circular-shaped STOP magnet is located on the center of the panel between speed and incline keys. A cord with a clip is attached to this magnet. Before starting a workout, attach the clip to clothing. To stop the striding belt on the treadmill, pull the cord, removing the magnet from the console. Replace the magnet to reset the system.
2. A massive-shaped EMERGENCY STOP button is located on the center of the crossbar below the console. Press the button to stop the striding belt and end the current workout.

• DISPLAY PROMPT VALUE

PROMPT	DEFAULT	MINIMUM	MAXIMUM	UNIT
TIME	20	10	99	minute
LEVEL	1	1	10	
WEIGHT	68/150	34/75	159/350	kg / lbs
AGE	30	10	99	year
SPEED	N/A	0.8 / 0.5	20 / 12	kph / mph
INCLINE	N/A	0	12	%

NOTE: The workout time displays "countdown" according to default time or the maximum time that the club owner set. When the workout time input as "0", the time will count from 0 to the maximum time depending on the fitness club setup. The workout pattern repeats until the maximum workout time is completed.

- WORKOUT OVERVIEWS

PROGRAM	DESCRIPTIONS	DEFAULT TIME	PROGRAM CONTROL	PROMPT INPUT
MANUAL	Manual is a constant effort workout in which the user can change incline or speed at any time.	20 min	N/A	Time, Weight
INTERVAL	Interval is periods of intense aerobic exercise separated by regular periods of lower-intensity exercise. At any point during the workout, the user can change the settings of the current speed.	20 min	Elevation	Level, Time Weight
WEIGHT LOSS	Weight Loss is designed to promote weight loss by raising and lowering the elevation. The treadmill automatically adjusts the incline according to the overall time.	20 min	Elevation	Level, Time Weight
FAT BURN	Fat Burn is a high-intensity workout for burning the body's fat reserves. The program adjusts the intensity level through changing the elevation, and the user controls the speed during the workout.	20 min	Elevation	Level, Time Weight
5K RUN	5K Run is designed to simulate a 5K run with elevation changes. The program completes when the user has completed 5K, so there is no preset time. The user can make speed changes during this program.	N/A	Elevation	Level, Weight
TARGET HR	Increases endurance by changing speed or elevation, while keeping the user at the target heart rate they set.	20 min	Speed or Elevation	Age, Target Heart Rate, Max Speed or Max Elevation, Time, Weight

• WORKOUT SETUP STEPS

• Quick Start

Press the "Quick Start" key and the WORKOUT PROFILE WINDOW will show "3", "2", "1", "GO!". The treadmill will start running from the lowest incline and the set-up lowest speed (0.8~2.4kph / 0.5~1.5mph), with the default time counting down from 20 minutes and the default weight value of 68 kgs (150 lbs).

• Manual

1) Choose the "MANUAL" program using the PROGRAM QUICK-KEYS, and then press ENTER.
2) Choose the "TIME" using the NUMERIC KEYS, and then press ENTER
3) Choose the "WEIGHT" using the NUMERIC KEYS, and then press ENTER
4) Press START.

• Interval, Weight Loss & Fat Burn

1) Choose the "INTERVAL, WEIGHT or FAT BURN" program using the PROGRAM QUICK-KEYS, and then press ENTER.
2) Choose the "LEVEL" using the NUMERIC KEYS, and then press ENTER.
3) Choose the "TIME" using the NUMERIC KEYS, and then press ENTER.
4) Choose the "WEIGHT" using the NUMERIC KEYS, and then press ENTER
5) Press START.

• 5K Run

1) Choose the "5K RUN" program using the PROGRAM QUICK-KEYS, then press ENTER.
2) Choose the "LEVEL" using the NUMERIC KEYS, and then press ENTER.
3) Choose the "WEIGHT" using the NUMERIC KEYS, and then press ENTER
4) Press START.

• Target HR

1) Choose the "TARGET HR" program using the PROGRAM QUICK-KEYS, and then press ENTER.
2) Choose your "AGE" using the NUMERIC KEYS, and then press ENTER.
3) Set up your "TARGET HEART RATE" using the NUMERIC KEYS, and then press ENTER.
4) Choose the "HR CONTROL MODE" using SPEED or INCLINE ARROW KEYS:
   * If SPEED ARROW KEY is pressed the console will display "SPEED HR CONTROL, SET MAX SPEED THEN PRESS ENTER"
   * If INCLINE ARROW KEY is pressed the console will display "INCLINE HR CONTROL, SET MAX INCLINE THEN PRESS ENTER"
5) Choose "TIME" using the NUMERIC KEYS, and then press ENTER.
6) Choose "WEIGHT" using the NUMERIC KEYS, and then press ENTER.
7) Press START.

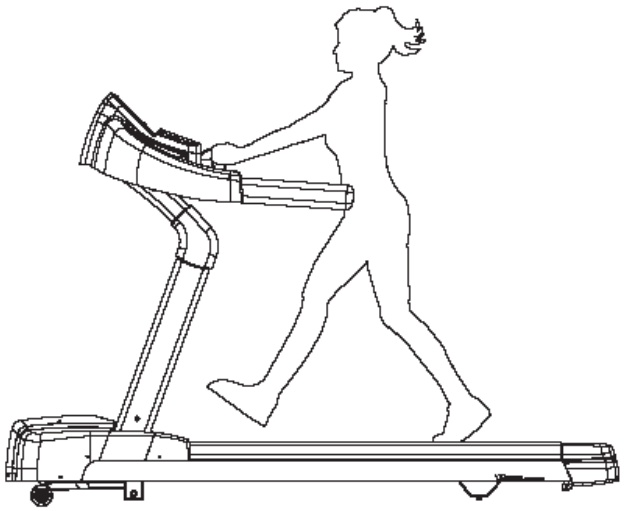
• WORKOUT TIPS

The workout tips on the Johnson T7000 are listed below.

1) **CAUTION!** Before beginning any fitness program, have your physician give you a complete physical examination.
2) Begin working out, adapt the speed and incline level to meet your fitness goals.
3) Always attach the security clip to your clothing prior to working out.
4) Check that the unit is turned ON. The I/O switch is located at the front.
5) Answer setup prompts using the numeric keys or by pressing SPEED / INCLINE ▲ or ▼ keys.
6) Hold onto the handrail with one hand while you press SPEED ▲ with the other hand. Once you are comfortable with the walking or running speed, you can remove your hands from the handrail.
7) The better position of feet to walk on the treadmill is where feet planted on the belt to have your arms bent slightly and your hands grasped the heart rate sensors (as illustrated). At the running speed, the feet stand on the point of the belt where the hands at a natural swing are not able to touch the front handrail.
8) Do not attempt to grasp the sensors at speeds above 4.5 MPH, or 7.2 KPH. For these speeds, the use of a heart rate chest strap is recommended.
9) Always incorporate a cool-down period into your workout.

Note:

Cool Down: Johnson Treadmill T7000 automatically initiates a 3-minute cool down once you complete a program. A prompt appears, indicating that you are in cool down.



T7000 Pro MANUAL- Engineer mode

How to enter into the engineering mode?

1. Press & Hold both “ELEVATION ▼” and “SPEED ▼” at the same time for 3-5 sec. Then, the display will show “MANAGER MENU”.

2. Press the “SPEED ▲ or ▼" to select you want and press the “ENTER" key enter.

Engineer mode setting

The Manager’s Custom Setting allows the club owner to customize the treadmill for your club. To enter the Manager’s Custom Setting, press and hold down the "INCLINE▲" and "SPEED▲" keys. Continue to hold down the two keys until the MESSAGE CENTRE displays the words "MANAGER MENU". Use the INCLINE arrow keys to scroll through the list of settings. The MESSAGE CENTRE will display, in turn, each of the custom settings. To select a displayed option, press the ENTER key. The Manager’s Custom Setting is listed on the following page. To change a setting, use the SPEED arrow keys or NUMERIC keys, and the press QUICK START. "SETTING SAVED" will appear in the message centre confirming that the message has been saved. To exit the setting setup without saving, press the RESET key within 5 seconds or the system will jump out of the setting automatically if no any key is inputted after 5 seconds.

KEY BEHALF FUNCTION

key name	function
UP	To scroll through the list of setting
DOWN	To scroll through the list of setting
FAST	Add this show parameter of speed and elevation
SLOW	Decrease this show parameter of speed and elevation
START	To Store up the parameter
NUMBER KEY	Set the parameter
ENTER	Enter the function place
RESET	reset to sources
Hold UP & FAST key for 3’s	clean accumulate time and distance

THE LIST OF MANAGER'S CUSTOM SETTING

	CUSTOM SETTING	DEFAULT	MINIMUM	MAXIMUM	DESCRIPTION
P0	**MAXIMUM TIME**	99	10	99	Maximum workout duration.
P1	**DEFAULT TIME**	20	10	99	Default start time in all programs.
P2	**DEFAULT LEVEL**	1	1	10	Default start level in all programs.
P3	**DEFAULT WEIGHT**	68KG /150LB	34KG /75LB	159KG /350LB	Default weight used in calorie calculations and HR programs.
P4	**DEFAULT AGE**	30	10	99	Default age used in HR programs.
P5	**MAXIMUM SPEED**	20 KPH /12 MPH	6.4 KPH / 4.0 MPH	20 KPH / 12.0 MPH	Controls the maximum speed for all programs.
P6	**MAXIMUM INCLINE**	15%	4% , 8% , 12% , 15%		Controls the maximum incline for all programs.
P7	**ACCUMULATED DISTANCE**	N/A	N/A	N/A	Total distance on treadmill, not editable. TO RESET: Press and hold INCLINE DOWN and SPEED DOWN for 3-5 seconds.
P8	**ACCUMULATED TIME**	N/A	N/A	N/A	Total distance on treadmill, not editable. TO RESET: Press and hold INCLINE DOWN and SPEED DOWN for 3-5 seconds.
P9	**START SPEED**	0.8 KPH / 0.5 MPH	0.8 KPH / 0.5 MPH	3.0 KPH / 1.8 MPH	Controls the starting speed for all programs (does not affect minimum speeds).
P10	**PAUSE TIME**	60 sec	30 sec	180 sec	Controls the maximum time the treadmill can be paused during a workout.
P11	**LANGUAGE**	English	N/A	N/A	Sets the language shown on the console.
P12	**UCB SOFT. VER.**	N/A	N/A	N/A	Software Version of UCB, not editable.
P13	**MCB SOFT. VER.**	N/A	N/A	N/A	Software Version of MCB, not editable.
P14	**UNITS**	Metric	N/A	N/A	Measurement unit used for calorie calculations, distance, and speed.

(CONTINUE)

THE LIST OF MANAGER'S CUSTOM SETTING

	CUSTOM SETTING	DEFAULT	MINIMUM	MAXIMUM	DESCRIPTION
P15	**MAINTEN. REMINDER**	ON	N/A	N/A	Controls the distance accumulative to maintenance. If default ON will can to select goal distance accumulative. 4000~8000KM , 2500~5000 Mile.
P16	**AUTO CHECK**	N/A	N/A	N/A	This function is to calibrate the treadmill incline.
P17	**ERROR LOG**	N/A	N/A	N/A	This function is to record the error occur history.
P18	**RESET ALL**	N/A	N/A	N/A	This function is to reset all parameter.
P19	**MANUFATURING TEST**	N/A	N/A	N/A	For factory use only.

Remarks

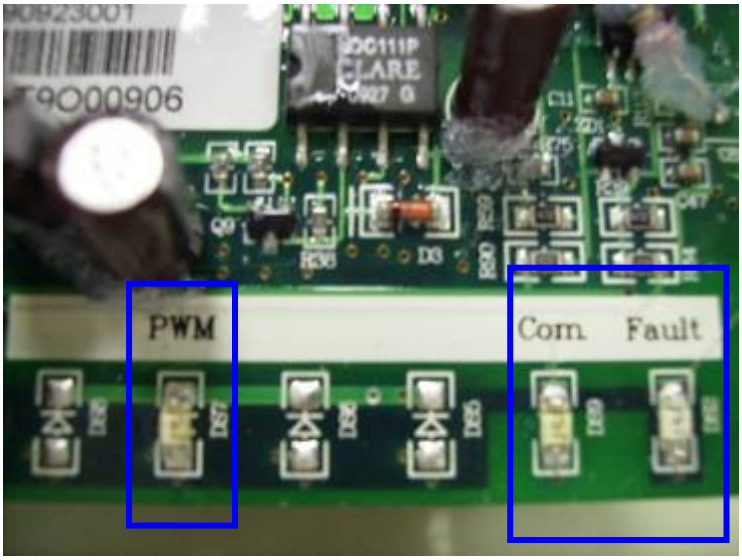
If you on P19: MANUFACTURING TEST this ADDRESS place, you can hold the number key "1 and 3" for 3's enter MANUFACTURING TEST.

ADDRESS	description
M0	TEST
M1	Low speed
M2	High speed
M3	RPM Parameter

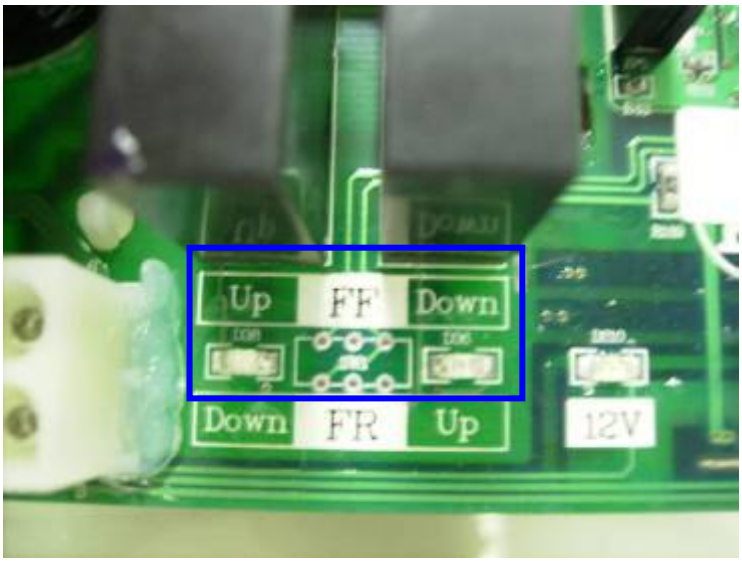
SECTION 5

T7000 Pro MCB LED INSTRUCTIONS

T7000 Pro MCB LED PLACE AND DEFINITION



- **PWM------ Console PWM signal light (when motor running the light should be flash)**
- **COM------ Digital communication light**
- **Fault------ The machine is stopped cause any C class errors**



- **Up / Down (FF)------ Elevation motor status light**

SECTION 6

TROUBLESHOOTINGS

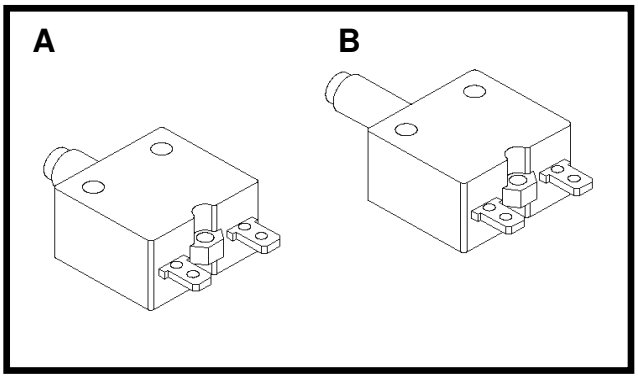
No display on console

Possible causes:

1. Breaker is damaged.
2. ON/OFF switch is damaged.
3. MCB is damaged
4. Digital communication cable is damaged
5. PCB is damaged

Fix:

1. Inspect the circuit breaker to see if it has tripped off.
   (If it is tripped off….like diagram **B**, reset the breaker. And check which part is short-circuited. Then replace the short-circuited part.)



2. The switch is turned to the "ON" position.
   (If the switch light isn't lit, replace the switch.)
   2-1 Verify wire connection **N** & **L** on the MCB.
   (Please refer the" MCB WIRING" ……page 17)
3. Verify the MCB whether supply the +12VDC for console.
4. Replace digital communication cable .
5. Replace PCB

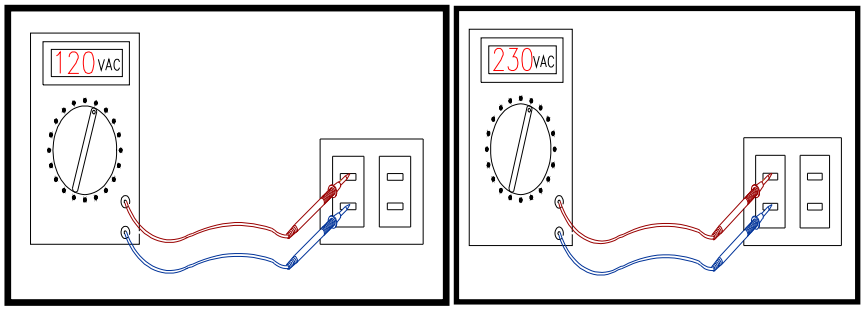
Running speed is not stable

Possible causes:

1. AC power voltage is too low.
2. Tension of drive belt or running belt is too loose.
3. MCB is damaged.
4. Motor is damaged.

Fix:

1. Check the power voltage by using voltage-meter to see if it is within 120V±15% or 230V±15%.



◆**If the power voltage isn't within the range, look for a qualified electrician for help.**

2. Open the motor cover, if the belt has stretched and is slipping across the rollers when running.

◆**Adjust the belt tension (Please refer the" TENSIONING THE BELT PROCEDURE"……. Page11~12).**

2. Replace new MCB.
3. Replace new Motor.

Treadmill starts to run by itself

Possible causes:

1. The digital communication cable is broken.
2. PCB is out of order.
3. MCB is out of order.

Fix:

1. Replace the console cable with a new one.
2. Replace the PCB.
3. Replace the MCB.

All or some of the keys on console do not work

Possible causes:

1. Keypad connecting plug is not fit-in properly.
2. Keypad is damaged.
3. PCB is damaged.

Fix:

1. Disconnect the keypad and replace the keypad, and check again.
2. Replace the keypad.
3. Replace the PCB.

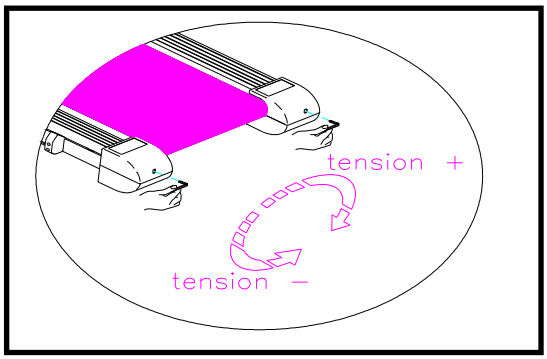
Noises generated under motor cover

Possible causes:

1. The running belt tension is adjusted too tight.
2. The bearing of front roller is not installed correctly.
3. Dirty grooves of drive belt.
4. The motor is damaged.

Fix:

1. Adjust the belt tension so that the belt does not start slipping and then check if the noise has disappeared.



◆**Let the treadmill run, without using it, for at least 5 days because sometimes the bearing will settle and become quiet then check if the noise has disappeared.**

2. Replace the front roller with a new one to see if the noise disappear.
3. Remove drive-belt and check the grooves in belt for dirt or dust and clean if necessary. Clean also the motor pulley and the roller pulley grooves and check if the noise has disappeared.
4. The motor bearing is damaged.
   ◆**Replace the motor.**

Error Messages on the Console

Class Level	Error Code	Description	Conditioned	Solution
B	0140	Incline motor operation fail.	when the elevation is supposed to move, it does not move. When the error happens, the elevation will be locked. The command "initialize" is needed to unlock the elevation.	1. connection check 2. MCB LED check 3. incline motor check or replace
C	01A0	Incline motor disconnection	when the elevation position cable is not connected	1. connection check 2. MCB LED check 3. incline motor check or replace
C	01A4	Main motor U phase disconnection	Main motor U phase disconnection	1. connection check U
C	01A5	Main motor V phase disconnection	Main motor V phase disconnection	2. connection check V
C	01A6	Main motor W phase disconnection	Main motor W phase disconnection	3. connection check W
C	01A8	main motor over current	main motor over current 7Amps	1. connection check 2. lubrication 3. overload
C	01AB	Inverter Error	internal error of inverter	1. check MCB error by PU-01 2. MCB replacement
C	01AD	Inner electron over temperature : motor over loading.	when the user over 130kg to make motor over loading and Inner electron over temperature	Lubrication running belt
C	02A0	main motor fail	the belt does not move when it supposes to move	1. connection check (power input) 2. motor resistance check 3. MCB replacement
C	02A1	Over AC power input voltage	power input voltage over range	check power input
C	02A2	Over / low DC bus voltage	power input voltage over range	check power input
C	02A8	Inverter circuit of motor driver fail	motor resistance close.	1. motor check or replace
C	02AD	LCB over temperature	LCB over temperature	1. check MCB temp. by PU-01 2. check cool fan 3. MCB replacement
C	02B5	Inverter sensor the normal rated current over 150% , can hold 60 sec.	Inverter sensor the normal rated current over 10.5Amps , can hold 60 sec.)	motor check or replace
C	02B6	Speed up have over current.	Software discover	Lubrication
C	02B7	Speed down have over current.	Software discover	MCB replacement
C	02B8	Running status over current.	Software discover	1. connection check 2. lubrication 3. overload
C	02B9	The inner memory IC data write error	MCB fail	MCB replacement
C	02BA	The inner memory IC data read error	MCB fail	MCB replacement
C	02BC	Ground connection or fuse error	MCB fail	MCB replacement
C	02BD	Inverter hardware interrupt error	MCB fail	MCB replacement

Class Level---

Class C : The machine will be stop.

Class B : To make a record in error log only, The machine keep working.

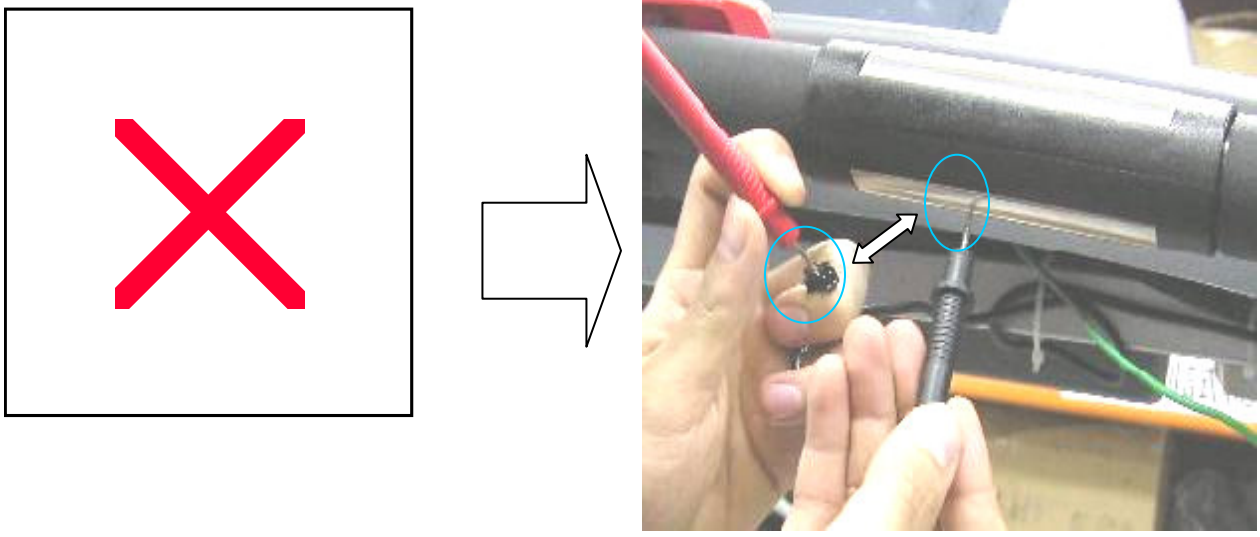
How to make sure whether the machine hand pulse can not work

1. Please make sure then user hold the hand pulse whether windows show picture.

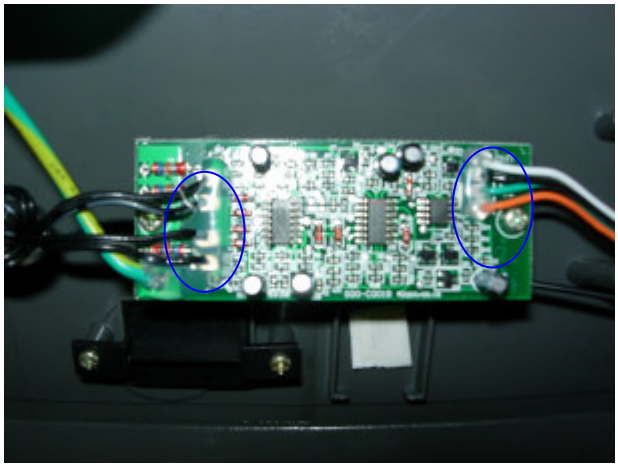
Remark: Heart rate figure show up on the screen about in 5~10 sec.

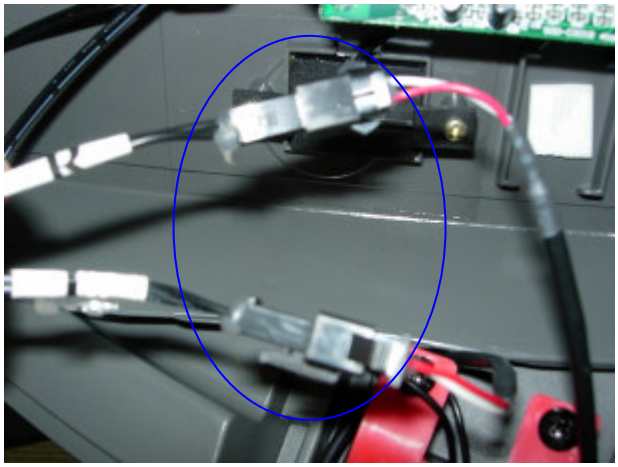
2. If the heart rate figure still doesn't show up on the screen, Please inspect according to the step as below.

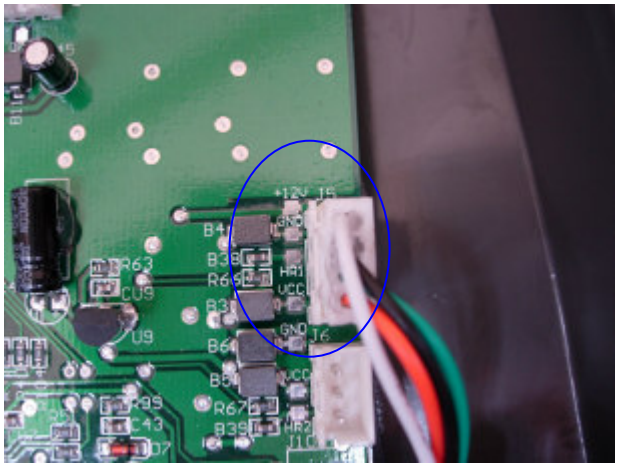
Step 1: Using multi-meter to confirm the wire has conduct.



Step 2: Please check the connection.







Check whether the heart rate cable is touching hand pulse metal (both of left hand and right hand).

Besides the other side of the heart rate cable should be connected with HR board.

Step 3: If you can't find any problem with above step, and the heart rate figure still can't show up, Please replace the heart rate board.

SECTION 7

Part Replacement Guide

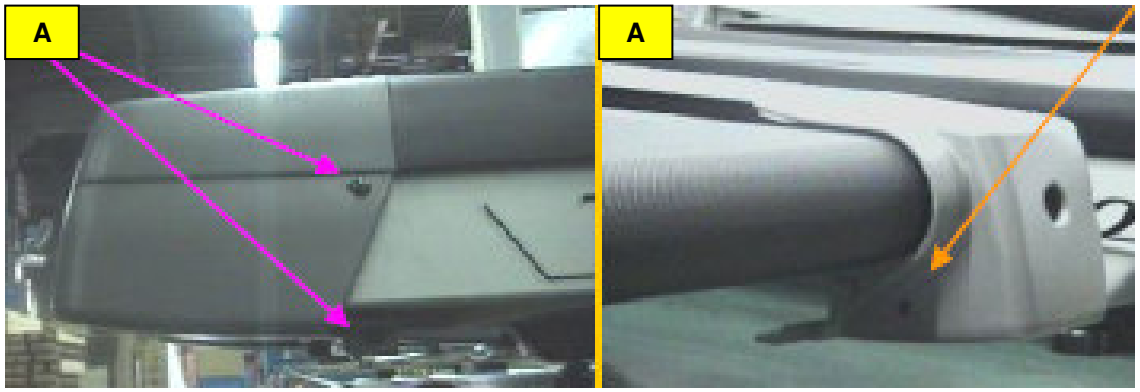
CHAPTER 7: Part Replacement Guide

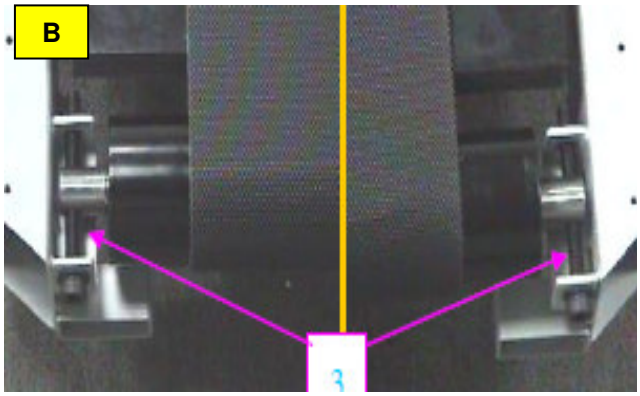
7.1 Front Plastic Shroud Removal

1) Turn off the power and move the plug
2) Remove the eight fix screws of front shroud using a Phillips screwdriver (Figures A & B).

7.2 Rear Roller Replacement

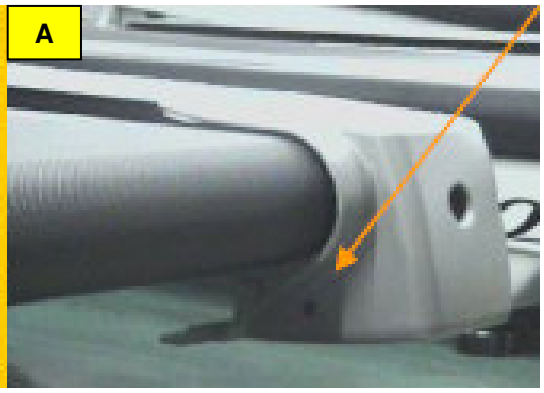
1) Turn off power and disconnect the cord from the machine.
2) Remove both side end caps using a Phillips screwdriver (Figure A).
3) Remove both roller adjustment screws using an 8 mm Allen wrench (Figure B).
4) Remove the roller from the running belt (Figures C).
5) Reverse Steps 1-4 to install a new roller

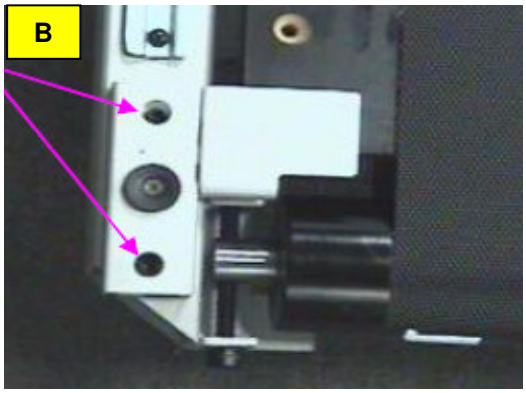




7.3 Side Rail Replacement

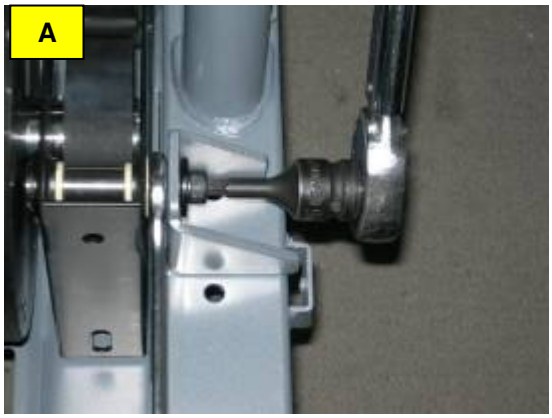
1) Remove the front shroud as outlined in Section 7.1.
2) Remove the end cap using a Phillips screwdriver (Figure A).
3) Remove the end cap bracket using a 3 mm Allen wrench (Figure B).
4) Slide the rail off the back of the treadmill (Figures C).
5) Reverse Steps 1-4 to install a new side rail.

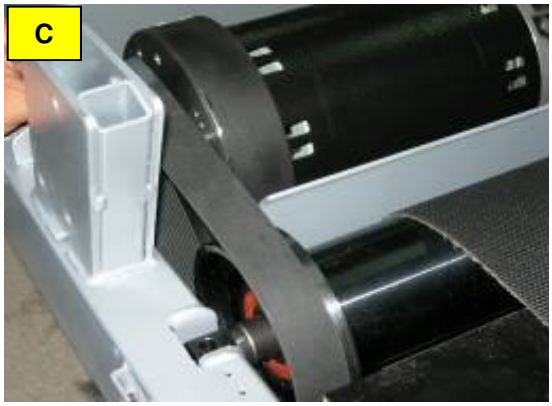




7.4 Front Roller Replacement

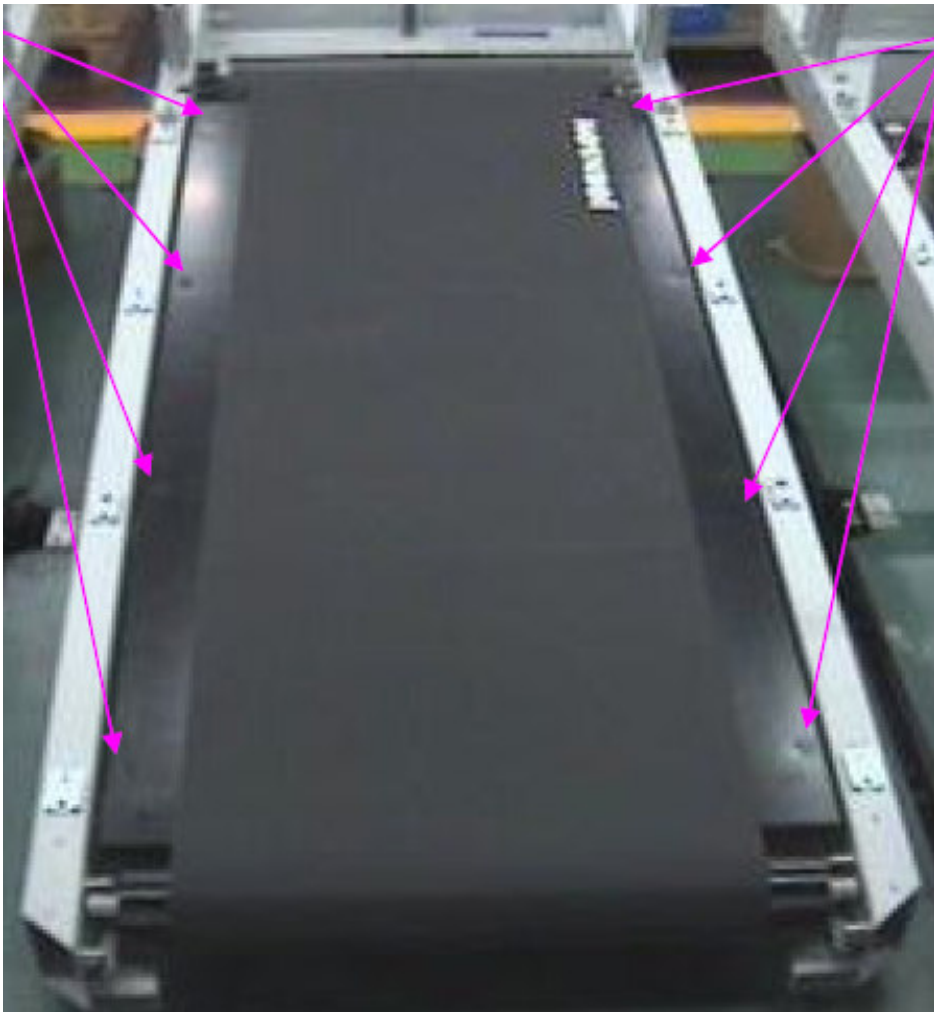
1) Remove the front shroud as outlined in Section 7.1.
2) Release the tension of running belt
3) Remove the fix bolt of tension wheel set using a 5 mm Allen wrench (Figure A) Be careful to hold the tension wheel set when fix bolt is releasing.
4) Remove the fix bolts of front roller using a 5 mm Allen wrench (Figure B)
5) Remove the driver belt form front roller. (Figure C)
6) Remove the front roller from the running belt
7) Reverse Steps 1-6 to install a new roller





7.5 Deck Removal

1) Remove the front shroud as outlined in Section 7.1.
2) Remove the side rail as outlined in Section 7.3.
3) Remove the eight deck screws using a 5 mm Allen wrench (Figure A).
4) Loose the tension of running belt
5) Remove the deck from the running belt
6) Be careful not to pinch fingers during removal / installation of deck board.



7.6 Running Belt Removal

1) Remove the front shrouds as outlined in Section 7.1.
2) Remove the rear roller as outlined in Section 7.2.
3) Remove the side rail as outlined in Section 7.3.
4) Remove the front roller as outlined in Section 7.4.
5) Remove the deck as outlined in Section 7.5
6) Remove the running belt and replace with a new belt
7) Reverse Steps 1-6 to install a new running belt.

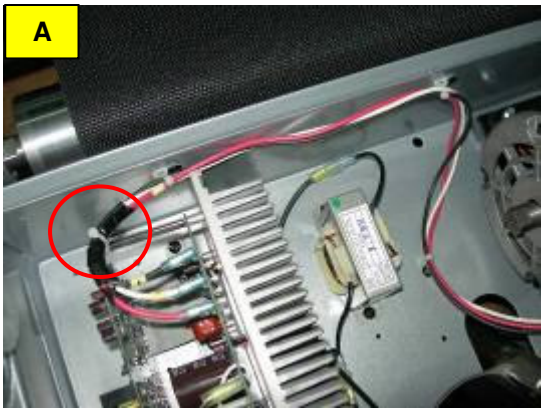
7.7 Deck Cushion Replacement

1) Remove the front shrouds as outlined in Section 7.1.
2) Remove the rear roller as outlined in Section 7.2.
3) Remove the side rail as outlined in Section 7.3.side rail as outlined in Section 7.3.
4) Remove the deck as outlined in Section 7.5.
5) Remove the running belt as outlined in Section 7.6
6) Remove the front roller as outlined in Section 7.4.
7) Holding the bolt with a 5 mm Allen wrench, loosen the nut with a 13 mm socket (Figure A & B).

7.8 Motor Control Board (MCB) Replacement

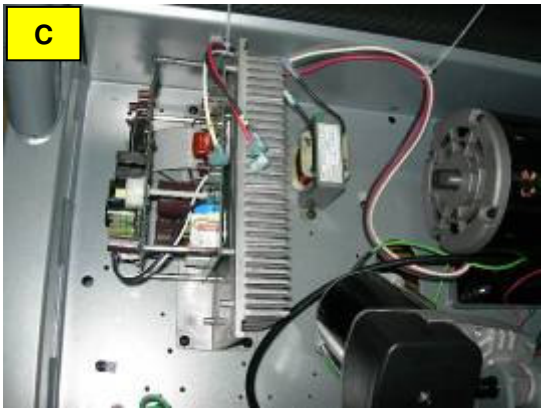
1) Turn off power and disconnect the cord from the machine.
2) Remove the front shroud as outlined in Section 7.1.
3) Cut any wire ties that are secured to the MCB panel (Figure A, B).
4) Disconnect wires from the MCB - six total connections (Figure C).
5) Remove Four MCB mounting screws using a Phillips head screwdriver (Figures D).
6) Reverse Steps 1-5 to install a new MCB.
7) Auto Calibration must ALWAYS be run after replacing the MCB (see Section 3.2).

A



B

C



D

7.9 Motor Replacement

1) Turn off power and disconnect the cord from the machine.
2) Remove the front shroud as outlined in Section 7.1.
3) Release the drive belt tensioner as outlined in Section 7.5.
4) Disconnect the motor power cable from the MCB (Figure A).
5) Using an 8 mm Allen wrench, remove the four motor mounting screws (Figure B).
6) Lift the motor away from the treadmill
7) Reverse Steps 1-6 to install a new motor.
8) When reinstalling the motor, make sure the vibration pad is in place.
9) Be careful the diversion when motor remove and reinstall. (Figure C)

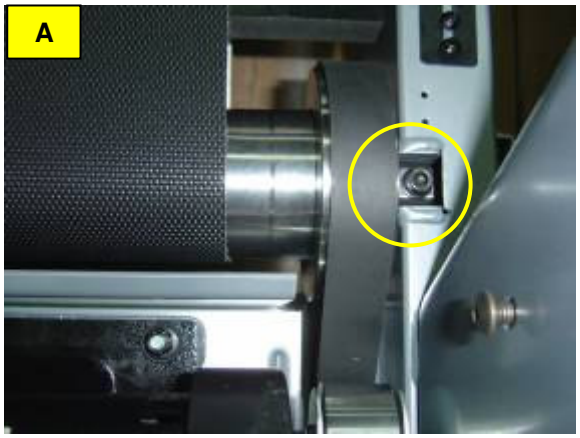
A

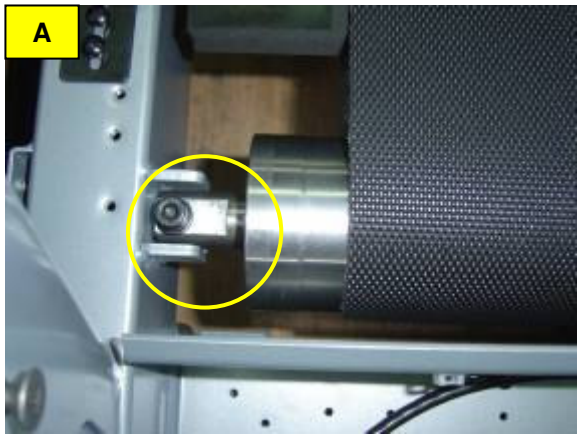
B

C

7.10 Drive Belt Replacement

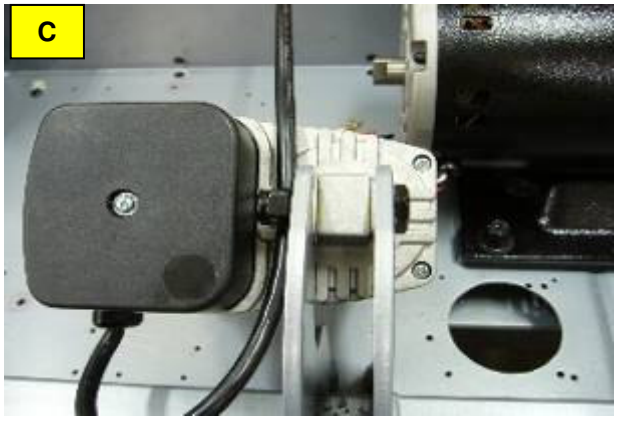
1) Remove the front shroud as outlined in Section 7.1.
2) Release the drive belt tension wheel set from drive belt as outlined in Section 7.4.
3) Remove the front roller screws on both side (Figure A).
4) Lift the roller and remove the old drive belt
5) After installing a new belt, check it for correct alignment to the motor pulley before setting the tension wheel set in place.





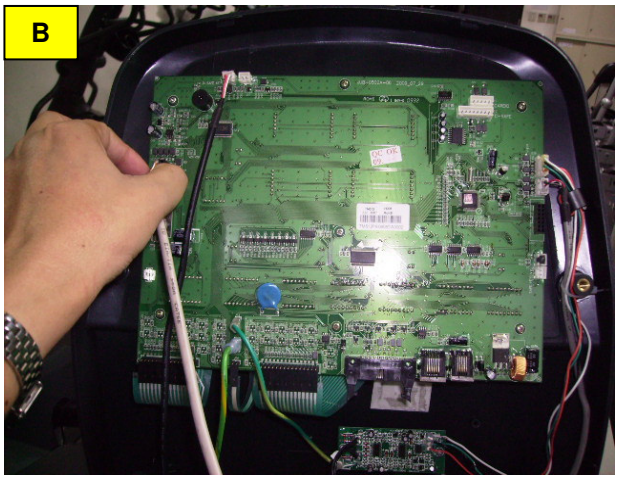
7.11 Incline Motor Replacement

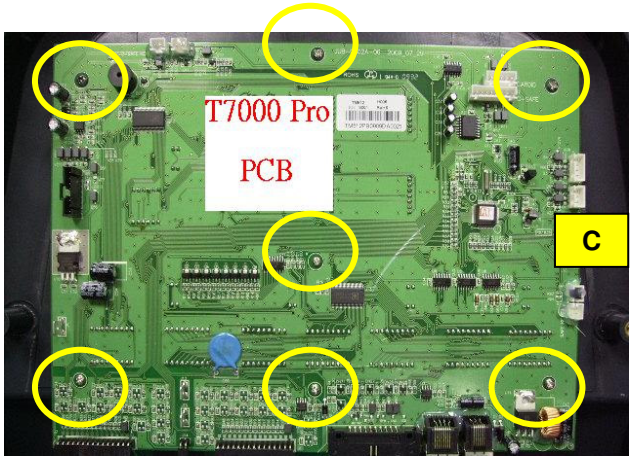
1) Turn off power and disconnect the cord from the machine.
2) Lift the treadmill and support it so that the front wheels are off the floor, or the unit may be tipped on its side (Figure A).
3) Disconnect the incline motor power cable from the MCB (Figure B).
4) Disconnect the bolt from the incline motor (Figure C).
5) Lift the incline motor away from the treadmill.
6) When installing the new incline motor, make sure to replace the white washers at the top and bottom.
7) Auto Calibration must ALWAYS be run after replacing the incline motor (see Section 3.2).



7.12 Console control board Replacement

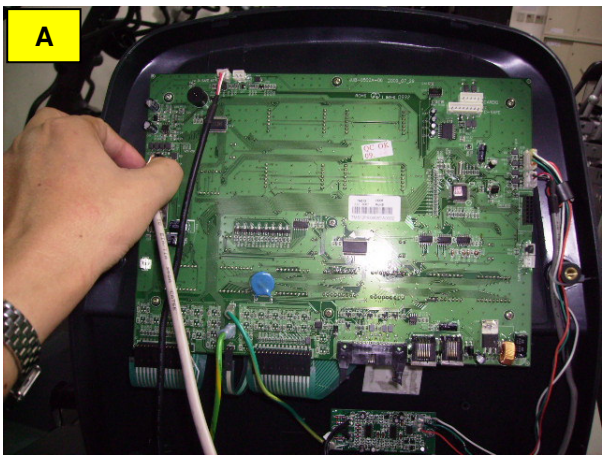
1) Turn off power and disconnect the cord from the machine.
2) Remove the four 6 mm screws using a Phillips head screwdriver from underneath the console to open the upper console cover. (Figure A).
3) Disconnect all of the wires from the console control board. (Figure B).
4) Remove the seven fix screws of CCB using a Phillips head screwdriver. (Figure C).
5) Reverse Steps 1-4 to install a new console control board.
6) Auto Calibration must ALWAYS be run after replacing the console (see Section 3.2).





7.13 Console Cable Replacement

1) Turn off power and disconnect the cord from the machine.
2) Open the upper console cover as outlined in Section 7.12-2.
3) Disconnect the console wire from CCB (Figure A).
4) Connection the defect wire and new wire (Figure B).
5) Pull the defect wire from lower outlet of console mast.
6) Reconnect console wire to MCB and CCB.



7.14 Emergency Stop Switch Replacement

1) Turn off power and disconnect the cord from the machine.
2) Open the upper console cover as outlined in Section 7.12-2.
3) Use a Phillips screwdriver to remove two screws of the cover of Emergency key (Figure A).
4) Use a Phillips screwdriver to remove two screws of the base of Emergency key (Figure B).
5) Turn open the Emergency switch (Figure C).
6) Reverse Steps 1-5 to install a new Emergency key set

A

B

C

7.15 Heart Rate Board Replacement

1) Turn off power and disconnect the cord from the machine.
2) Open the upper console cover as outlined in Section 7.12-2.
3) Disconnect the wires from each side of the Heart Rate Board (Figure A).
4) Use a Phillips screwdriver to remove two screws, one from each side of the Heart Rate Board mounting bracket (Figure B).
5) Be sure to fully seat the wires on the new Heart Rate Board and test the grips after the console is reinstalled.