



VISION FITNESS
VISION FITNESS

*VISION SERIES TREADMILL
SERVICE MANUAL FOR 2005 YEAR*

**T9700HRT/T9700RUNER/T9700S
T9600HRT COMFORT/T9600HRT/T9500HRT
T9450HRT/T9350/T9300/T9250/T9200**

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SECTION 1
MAINTENANCE PROCEDURE

PREVENTIVE MAINTENANCE SCHEDULE

VISION TREADMILL

Item	Daily	Weekly	Monthly	Quarterly	Biannual	Annual
Console Mounting Bolts					Inspect	
Frame	Clean				Inspect	
Running Belt Top		Clean (Vacuum)			Inspect	
#3 Carbon Brush				Inspect		Replace
Power Cord			Inspect			
Display Console	Clean		Inspect			
Handlebar	Clean				Inspect	
Handrail & Handlebar				Inspect		
Front Roller				Clean	Inspect	
Rear Roller					Inspect	
Emergency Button	Test					
Tension Wheel			Inspect			
V Belt				Clean	Inspect	
Deck Re-waxing			Inspect & Re-waxing			
Running Belt					Inspect	
Control Box					Clean (Vacuum)	
Motor				Clean		
Air Shock					Lubricate	

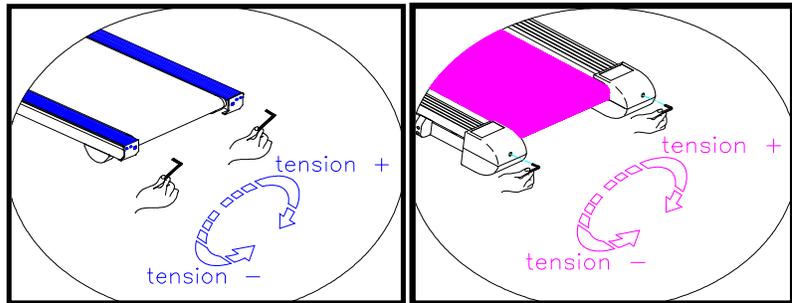
TENSIONING THE BELT

Caution:

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

Running Belt:

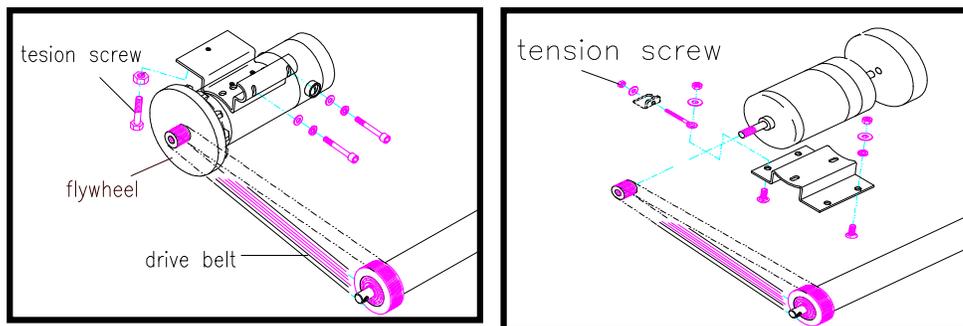
If when you plant your foot on the belt, you can feel a slipping sensation then the belt has stretched and is slipping across the rollers. This is a



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. Then try the treadmill again to check for slipping.

Perfect Tension of Drive Belt: 70~90 lbs

DECK RE-WAXING PROCEDURE

Frequency: Every 1 month.

LUBE

Name: DOW CORNING 350 SILICON

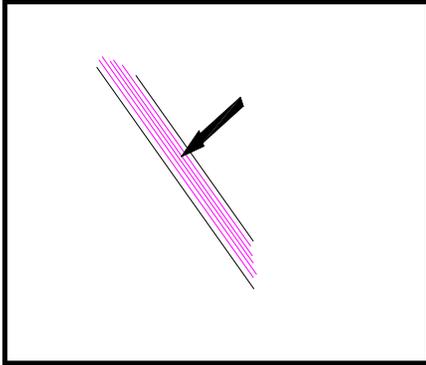
Procedure:

1. Loosen the tension bolts at both ends.
2. Pull the belt with your left hand and apply the silicon in the deck with your right hand. *(The volume of silicon applied is about 25CC.)*
3. Tighten the tension bolts.
4. Start the treadmill. Step on the treadmill belt to walk the silicon in. Adjust the belt tension if necessary.
5. With the clamp-on meter, measure the current draw of the motor. *(Clamp on either the red or the black wire.)* The current should be less than 15Amps for 110V model. *(less than 7.5Amps for 220V model.)*

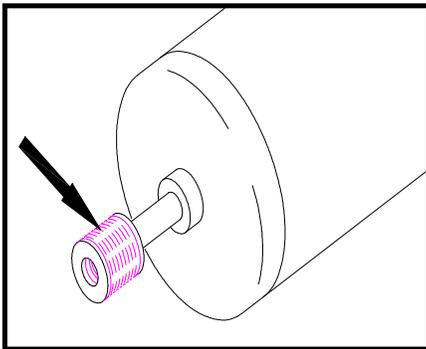
CLEAN THE GROOVES PROCEDURE

Frequency: Every 3 months.

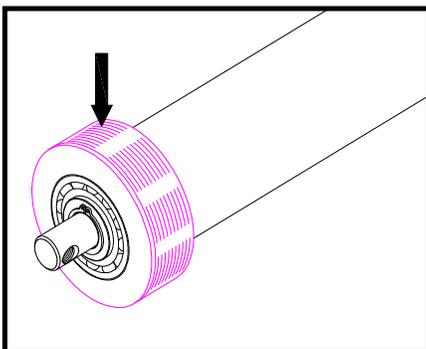
Procedure:



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.



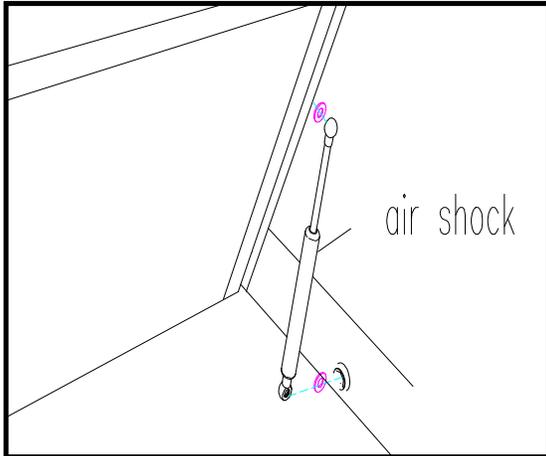
3. Check the grooves in roller pulley for dirt or dust and clean it.

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

LUBRICATING THE AIR SHOCK

Frequency: Every 6 months.

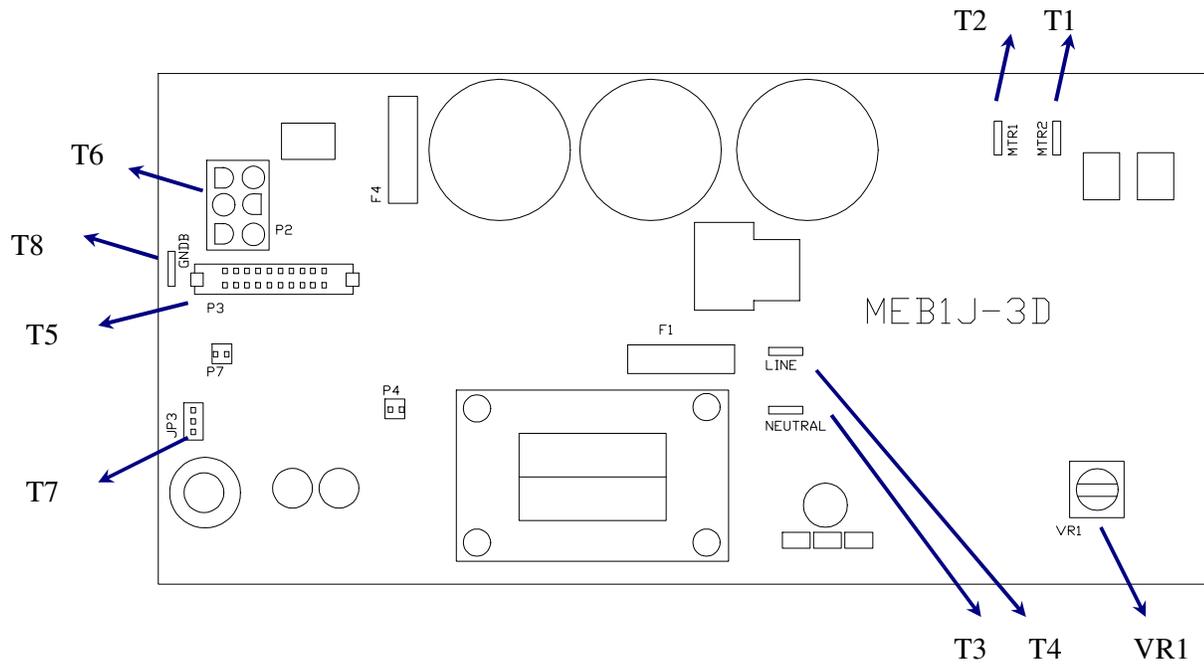
Procedure:



1. Fold up the frame by using the deck-locking lever.
2. Add the lubricating oil on the shaft of the air shock.
3. Lift the frame up and down, repeating this several times to allow the lubricating oil blend into air shock.

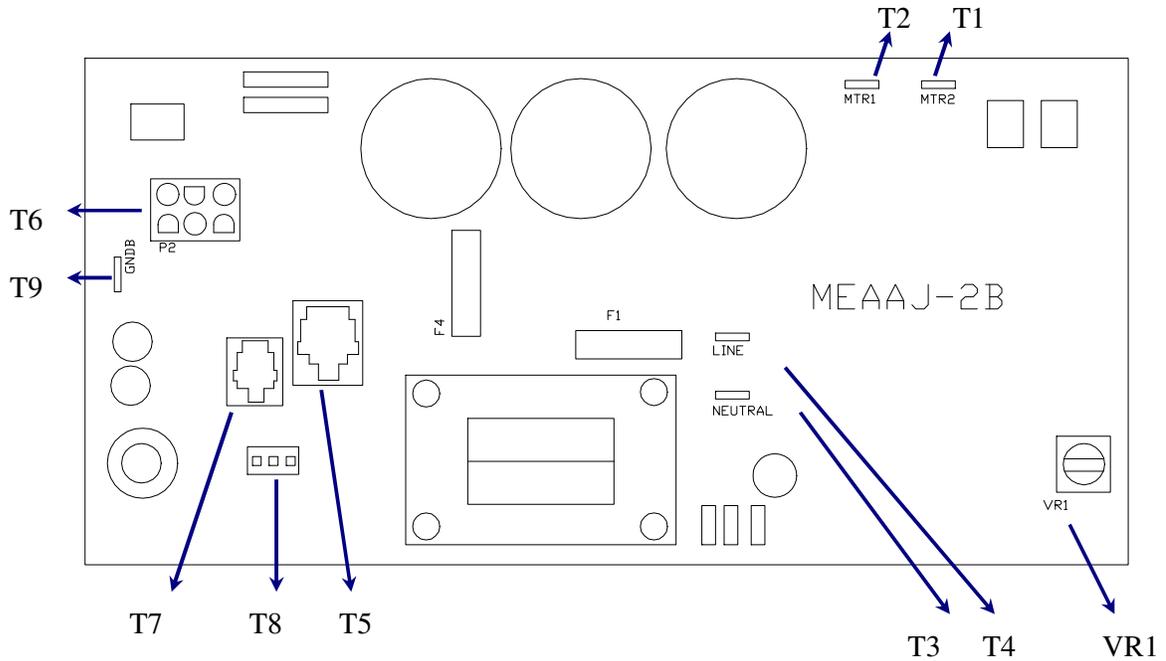
SECTION 2
WIRING DIAGRAM INSTRUCTION

T9700(TM51D/E) MCB WIRING(FOR 110V / 220V)



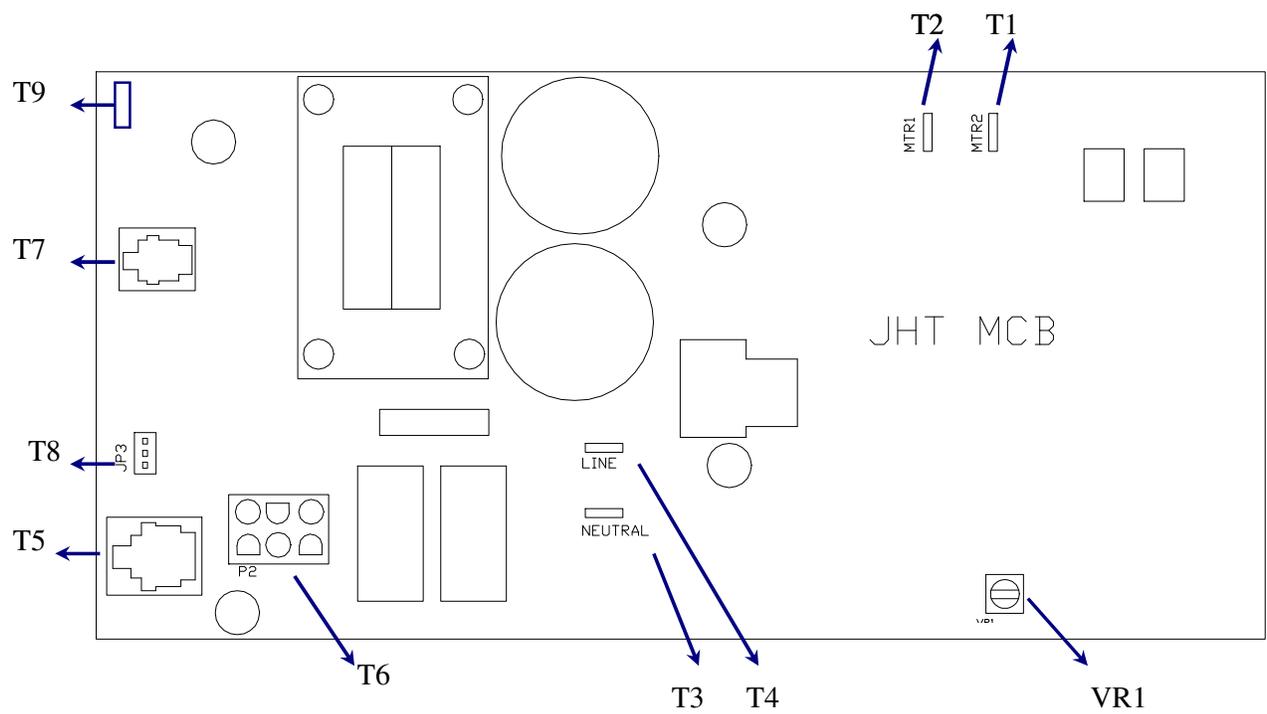
- **T1-----Motor wire (black)**
- **T2-----Motor wire (red)**
- **T3-----D1 of on/off switch**
- **T4-----D3 of on/off switch**
- **T5-----20-pin console cable**
- **T6-----Elevation cable**
- **T7-----Speed sensor line**
- **T8----- Ground wire**

T9600HRT(COMFORT)/T9600HRT/T9500HRT/T9450HRT/T9350/T9300 MCB WIRING(FOR 110V / 220V)



- **T1-----Motor wire (black)**
- **T2-----Motor wire (red)**
- **T3-----D1 of on/off switch**
- **T4-----D3 of on/off switch**
- **T5-----8-pin console cable**
- **T6-----Elevation cable**
- **T7-----6-pin console cable**
- **T8----- Speed sensor line**
- **T9----- Ground wire**

T9200/T9250 MCB WIRING(FOR 110V / 220V)



- **T1-----Motor wire (black)**
- **T2-----Motor wire (red)**
- **T3-----D1 of on/off switch**
- **T4-----D3 of on/off switch**
- **T5-----8-pin console cable**
- **T6-----Elevation cable**
- **T7-----6-pin console cable**
- **T8----- Speed sensor line**
- **T9----- Ground wire**

SECTION 3

CONSOLE ENGINEERING MODE GUIDE

T9700(TM51D/E) TREADMILLS (for Software Ver. 2.5)

Apply to :

1. VISION T9700/T9600 serie treadmill .
2. 2004 year T9700 serie treadmill.
3. 2004 year for ID

How to enter into the engineering mode?



1. Press & Hold both “ELEVATION UP” and “SPEED DOWN” at the same time for 3-5 sec. Then, the dot vision display will show “DGB1J A564” and right display is show “ VERSION ”

2. Press the "ELEVATION" or "SPEED" to select you want and press the "SELECT" key enter.

Display show	function interpret
CONFIGURE	set the treadmill all parameter
DISPLAY TEST	console LED test mode
BURN IN TEST	treadmill running test mode
AUTO CAL	Auto-calibration mode
SPEED SENSOR	speed sensor test mode
RS 232 TEST	RS-232 test mode
HR TEST	HR test mode

KEY BEHALE FUNCTION

key name	function
SELECT	To Store up the parameter
SPEED UP	Add this show parameter of speed and elevation
SPEED DOWN	Decrease this show parameter of speed and elevation
STOP	Press the STOP key for 3~5 sec will reset to sources
ELEVATION UP	Add address
ELEVATION DOWN	Decrease address
START	No function

CONFIGURE INCLUDE

ADDRESS	description	SOURCES	MIN	MAX
P0 MIN SPD	set the Low speed 0.5mph the PWM	33	2	70
P1 1/2 MAX	set the 1/2 max speed 5mph the PWM	176	100	270
P2 MAX SPD	set the Max speed 10mph the PWM	340	200	511
P3 ELV SLP	set the incline slope	1	1	255
P4 ELV ZERO	set the low the altitude	66	25	150
P5 ELV MAX	set the high the altitude	213	150	235
P6 T96-97HRT E	4-mile , 0.5~12mph , 15% altitude	6	4	52
P6 T96-97HRT M	5-km ,1.0~19km/h , 15% altitude			
P6 T9700S E	6-mile , 0.5~12mph , 15% altitude			
P6 T9700S M	7-km ,1.0~19km/h , 15% altitude			
P6 T9700RUNNER E	8-mile , 0.5~12mph , 15% altitude			
P6 T9700RUNNER M	9-km ,1.0~19km/h , 15% altitude			
P6 T9700HRT E	42-mile , 0.5~12mph , 15% altitude			
P6 T9700HRT M	52-km , 0.8~19km/h , 15% altitude			
P7 MAX TIME	Max enforce time	99	15	99
P8 WEIGHT	Import User Weight	150	35	400
P9 OP HOURS	Accumulate time	0	0	6553.5
P10 OP DIST	Accumulate distance	0	0	6553.5
P11 BELT	set the Running belt depth(mm)	1.4	0	10
P12 ROLLER	set the roller caliber(mm)	60	60	60

P13 ELV DIR	Change the incline altitude	255	0	255
P14 ELV ERRS	Change the altitude error switch, 0=OFF, 1=ON	0	0	1
P15 SCROLL	set the change display show letter speed	7	1	255
P16 LUBE HRS	Accumulate the after one lube to now hour	0	0	0xffff
P17 CLEAN	Accumulate the after clean to now distance	0	0	0xffff
P18 BRUSH	Accumulate the change motor brush to now distance	0	0	0xffff
P19 EXIT	Go away the engineer mode			

Remarks:

1. After execute indicated service, please enter the engineer mode to press the STOP key for 3~5 sec to renew of the P16 ,P17 or P18.
2. If you want to the clean accumulate time and distance, please press the "ELEVATION UP and DOWN" for 5 sec of user mode.

Error code definition

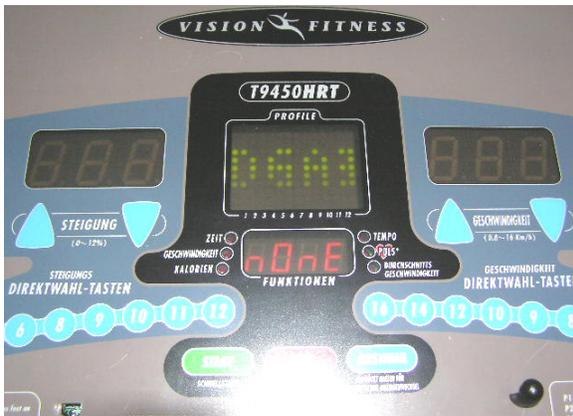
Error	Definition
E4	Incline motor parameter over the set
E5	Incline motor not to movement
E6	Incline motor the signal not answer
E7	Speed over the 2.0 mph /km/h

**T9600HRT(COMFORT)/T9600HRT/T9500HRT/T9450HRT/
T9350/T9300 TREADMILLS (for Software Ver. 5.9)**

Apply to :

1. VISION T9300/T9350/T9400/T9450/T9500 serie treadmill.
2. 2004 year T9300/T9350/T9450/T9500/T9600 serie treadmill.
3. 2004 year T9350/T9450/T9500 for ID

How to enter into the engineering mode?



1. Press & Hold both “ELEVATION UP” and “SPEED DOWN” at the same time for 3-5 sec. Then, the dot vision display will show “DGAJ n0nE” .
2. Press the "ELEVATION" or "SPEED" to select you want and press the "SELECT" key enter.

Display show	function interpret
ENG1	set the treadmill all parameter
ENG2	console LED test mode
ENG3	treadmill running test mode
ENG4	Auto-calibration mode
ENG5	speed sensor test mode
NONE	come back the user mode

KEY BEHALE FUNCTION

key name	function
SELECT	To Store up the parameter
SPEED UP	Add this show parameter of speed and elevation
SPEED DOWN	Decrease this show parameter of speed and elevation
ELEVATION UP	Add address
ELEVATION DOWN	Decrease address
START	Enter P0~P14 parameter

ENG1

ADDRESS	DEFINITION	SOURCES	SCOPE
P0	MIN SPD	refer to appendix(1)	refer to appendix(1)
P1	MAX SPD		
P2	1/2 MAX SPD		
P3	ELV SLP	1	1~255
P4	ELV ZERO	refer to appendix(1)	refer to appendix(1)
P5	ELV MAX		
P6	MODEL SET Metric/ English	refer to appendix(2)	
P7	MAX TIME	99	
P8	WEIGHT	150LB(Mile) 68kg (Km)	35~400LB(Mile) 35~400kg(Km)
P9	OP HOURS (hr)	0	0~6553.5
P10	OP DIST (Mile/km)	0	0~6553.5
P11	BELT (mm)	5	0~10
P12	ROLLER	60	60
P13	ELV DIR	255	0~255
P14	EXIT		

Appendix (1)

SOU= SOURCES PARAMETER

SCO= SCOPE PARAMETER

MODEL	Metric/ English	P6	P0		P1		P2		P4		P5	
		SET	SOU	SCO	SOU	SCO	SOU	SCO	SOU	SCO	SOU	SCO
T9300 (TM55)	English	0	41	2~70	363	250~511	189	100~270	69	1~150	217	130~255
	Metric	1	41	2~70	363	250~511	189	100~270	69	1~150	217	130~255
T9300HRT (TM55D) 2	English	2	41	2~70	363	250~511	189	100~270	69	1~150	217	130~255
	Metric	3	41	2~70	363	250~511	189	100~270	69	1~150	217	130~255
T9400HRT (TM56)	English	2	41	2~70	363	250~511	189	100~270	69	1~150	217	130~255
	Metric	3	41	2~70	363	250~511	189	100~270	69	1~150	217	130~255
T9350 (TM42)	English	4	41	2~70	363	250~511	189	100~270	66	1~150	220	130~255
	Metric	5	41	2~70	363	250~511	189	100~270	66	1~150	220	130~255
	English	22	41	2~70	363	250~511	189	100~270	66	1~150	220	130~255
	Metric	32	41	2~70	363	250~511	189	100~270	66	1~150	220	130~255
T9350HRT (TM42F) 1	English	6	41	2~70	363	250~511	189	100~270	66	1~150	220	130~255
	Metric	7	41	2~70	363	250~511	189	100~270	66	1~150	220	130~255
T9450HRT (TM47)	English	6	41	2~70	363	250~511	189	100~270	66	1~150	220	130~255
	Metric	7	41	2~70	363	250~511	189	100~270	66	1~150	220	130~255
	English	23	41	2~70	363	250~511	189	100~270	66	1~150	220	130~255
	Metric	33	41	2~70	363	250~511	189	100~270	66	1~150	220	130~255
T9500HRT (TM54)	English	8	29	2~70	348	250~511	179	100~270	63	1~150	177	130~255
T9500HRT (TM54)	English	8	29	2~70	348	250~511	179	100~270	63	1~150	177	130~255

	Metric	9	29	2~70	348	250~511	179	100~270	63	1~150	177	130~255
	English	24	29	2~70	348	250~511	179	100~270	63	1~150	177	130~255
	Metric	34	29	2~70	348	250~511	179	100~270	63	1~150	177	130~255
T9600HRT (TM53)	English	10	29	2~70	348	250~511	179	100~270	63	1~150	177	130~255
	Metric	11	29	2~70	348	250~511	179	100~270	63	1~150	177	130~255

Appendix (2)

Model	Metric/ English	Configuration Number	Min. Speed	Max. Speed	Max Grade	0% Grade offset	Max Grade offset
T9300 (TM55C)	English1	0	0.5MIL	10MIL	12%	19	5
	Metric1	1	1.0KM	16KM	12%	19	5
T9400HRT (TM56)	English1	2	0.5MIL	10MIL	12%	19	5
	Metric1	3	1.0KM	16KM	12%	19	5
T9350 (TM42C)	English1	4 (For USA)	0.5MIL	10MIL	12%	5	5
	Metric1	5 (For USA)	1.0KM	16KM	12%	5	5
	English2	22(For ID)	0.5MIL	10MIL	12%	5	5
	Metric2	32(For ID)	0.8KM	16KM	12%	5	5
T9450HRT (TM47C)	English1	6 (For USA)	0.5MIL	10MIL	12%	5	5
	Metric1	7 (For USA)	1.0KM	16KM	12%	5	5
	English2	23(For ID)	0.5MIL	10MIL	12%	5	5
	Metric2	33(For ID)	0.8KM	16KM	12%	5	5
T9500HRT (TM54C)	English1	8 (For USA)	0.5MIL	12MIL	12%	19	15
	Metric1	9 (For USA)	1.0KM	19KM	12%	19	15
	English2	24(For ID)	0.5MIL	12MIL	12%	19	15
	Metric2	34(For ID)	0.8KM	19KM	12%	19	15
T9600HRT (TM53D)	English1	10	0.5MIL	12MIL	15%	13	15
	Metric1	11	1.0KM	19KM	15%	13	15

Remarks :

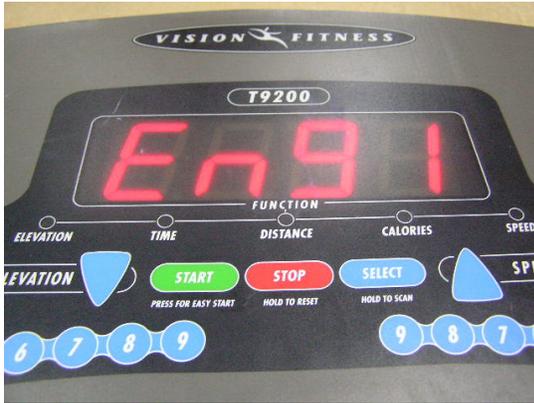
1. If set address P6 model is T9450(Configuration Number 6/7/23/33) machine the address P11 will automatic set to 7,because running band the depth is 4.4mm.
2. If you want to the clean accumulate time and distance, please press the "ELEVATION UP and DOWN" for 5 sec of user mode.

Error code definition

Error	Definition
E4	Incline motor parameter over the set
E5	Incline motor not to movement
E6	Incline motor the signal not answer

T9200/T9250 TREADMILLS (for Software Ver. S706)

How to enter into the engineering mode?



1. Press & Hold both “ELEVATION UP” and “SPEED DOWN” at the same time for 3-5 sec. Then, the dot vision display first will show “ VERSION ” follow show “ ENG 1 ”
2. Press the "ELEVATION" or "SPEED" to select you want and press the "START" key enter.

Display show	function interpret
ENG1	set the treadmill all parameter
ENG2	console LED test mode
ENG3	treadmill running test mode
ENG4	Auto-calibration mode

KEY BEHALE FUNCTION

key name	function
STOP	Hold STOP key for 3 sec will Come back to above mode
SPEED UP and ELEVATION UP	Add this show parameter of speed and elevation
SPEED DOWN and ELEVATION DOWN	Decrease this show parameter of speed and elevation
START	To Store up the parameter

ENG1

ADDRESS	DEFINITION	SOURCES	SCOPE
P0	MIN SPD	450	210~3900
P1	MAX SPD	2000	2000~3900
P2	No function		
P3	No function		
P4	ELV ZERO	30	1~255
P5	ELV MAX	245	1~255
P6	No function		
P7	MAX TIME	99	5~99 min(Km/Mile the same)
P8	WEIGHT	150LB(Mile) 68kg (Km)	35~400LB(Mile) 35~400kg(Km)
P9	OP HOURS (hr)	0	0~9999
P10	OP DIST (Mile/km)	0	0~9999

Remarks:

- 1. If you want to the clean accumulate time and distance, please enter engineering mode select “ENG1” enter, please enter P9 (Accumulate Time) or P10 (Accumulate Distance) hold “ELEVATION DOWN and SPEED UP” for 3~5 sec.**

Error code definition

Error	Definition
E2	Incline motor problem

SECTION 4
MCB LED INSTRUCTIONS

MCB LED Indication

Note:

Use a multi-meter to test the power socket.

110v mode:

95v ~ 140v

220v mode:

210v ~ 250v

Note:

**For MCB
(Lower-board)**

**Note: For PCB
(Upper-board)**

When we designed the lower control board (MCB) for our treadmills we placed status lights (LEDs) on it to aid in field diagnosis and repair. The following is an overview of what these indicator lights mean and what can be checked with them in the field.

AC Light- When lit, this indicates that the MCB has power applied. If this LED is off, check connections, power switch position, fuses and circuit breakers. If the AC light is not lit, the MCB will not operate.

+18V Light- When lit, this indicates the presence of the unregulated 18 volt direct current supply necessary for the operation of the MCB circuitry. If dim the supply voltage may be marginal and if out, not present or inadequate. If this light is not lit, the MCB will not operate even if the PCB is operating properly. If the AC light is lit and the +11V and +18V light are not, check fuse F1. If the +11V light is lit and the +18V light is not lit, return the board to JMI.

+11V Light- When lit, this indicates the presence of the regulated 11 volt direct current supply necessary for the operation of the PCB. If dim the supply voltage may be marginal and if out not present or inadequate. If the light is not lit, the console will not operate. If the AC and +18V light are lit and the +11V light is not, check for shorted cabling or a defective upper console. If the AC light is lit and the +11V and +18V lights are not, check fuse F1.

MCB LED Indication

MTR Light- When lit, indicates the High Power Direct Current supply for the motor (B+) is online. This light will remain lit for a period of time after power has been removed from the MCB. While the MTR light remains lit, anyone handling the MCB should use caution since there is still a hazardous potential present. When the MTR light is off, B+ is not present and the motor controller will not operate. If the MTR and I-limit lights are off, verify motor connections and proper motor operation. If the MTR light is off and the I-limit light is on, the MCB shut off due to an extended current limit condition. In this case, resetting the PCB or cycling power will eliminate the problem. However, the treadmill should be thoroughly examined for wear or damaged components which might have lead to the extended current limit condition. If this problem persists, return the board to JMI.

Note:
over 26 Amps when lit

4- **limit** Light- When lit, indicates the current to the motor has reached the peak current trip point of 26 Amps. The MCB will limit the current when the current limit point has been reached. If the current limit continues for roughly 5 seconds, the MCB shuts down and the I-Limit light will remain on. To reset the I-Limit, turn the treadmill off at the power switch wait about 30 seconds then turn the power back on.

Note:
a control command from the PCB to the MCB

PWM Light- Indicates the control PWM from the PCB is present. It will blink at the control frequency used by the PCB when the PCB commands speed. If the control signal should exceed 95 percent duty cycle, the PWM light shuts off and sets the MCB to a safe shutdown mode. In the event this should occur, the power to the treadmill should be removed, the cabling checked for shorts and the PCB replaced. If this problem persists, replace the MCB.

MCB LED Indication

Note:
**the incline is being
commanded up**

UP Light- Indicates the PCB is commanding the incline motor to move up. If the User is commanding the incline to increase and this light is not lit, check cabling, verify proper PCB operation and replace it if either is defective. If the problem persists, replace the MCB. If the light is lit but the incline is not moving, check and verify incline motor and its connection to the board; check fuse F2. If this problem persists replace MCB.

Note:
**the incline is being
commanded down**

DN Light- Indicates the PCB is commanding the incline motor to move down. If the User is commanding the incline to decrease and this light is not lit, check cabling, verify proper PCB operation and replace it if either is defective. If the problem persists, replace the MCB. If the light is lit but the incline is not moving, check and verify incline motor and its connection to the board; check fuse F2. If this problem persists replace MCB.

PWM MCB LED CHART

NO.	AC	+18V	+11V	MTR	I-LIMIT	PWM	UP	DN
1	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
2	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
3	ON	ON	OFF	ON	OFF	OFF	OFF	OFF
4	ON	OFF	ON	OFF	OFF	OFF	OFF	OFF
5	ON	ON	ON	OFF	OFF	OFF OR BLINKING	N/A	N/A
6	ON	ON	ON	DIM/ OFF	ON	BLINKING	N/A	N/A
7	ON	ON	ON	ON	ON	BLINKING	N/A	N/A
8	ON	ON	ON	ON	OFF	COMES ON BRIEFLY & THEN SHUTS OFF	N/A	N/A
9	ON	ON	ON	ON	OFF	N/A	ON	OFF
10	ON	ON	ON	ON	OFF	N/A	OFF	ON

MCB LED-AIDED TROUBLESHOOTING CHART

NO.	PROBLEM/RESULT	CORRECTIVE ACTION
1	No operation of MCB or PCB	Verify connections, power switch, circuit breaker and fuse
2	No operation of MCB or PCB	Check fuse F1
3	PCB will not power up	Replace MCB
4	PCB will power up but the MCB will not operate	Verify adequate line voltage. If line voltage is adequate, MCB is damaged and needs to be returned to manufacturer.
5	Will not operate the motor	<p>Verify connections to motor and the motor itself. If the motor and its connections are good, the MCB should be replaced. Return MCB to manufacturer with information on location, power level, how it was used when failure occurred etc.</p> <p>The motor can be verified by disconnecting the motor; connecting a volt-ohm meter (set to VCD) to the motor leads; and spinning the tread and observing a voltage. If no voltage, Bad motor.</p>
6	Will not operate the motor	A 5-second current limit time-out has occurred. Resets console or cycle power to correct. Check treadmill for excessive wear or mechanical defects. If problem persists, return MCB.
7	MCB in current limit mode	The MCB is experiencing a discontinuous over current event. Check for mechanical wear and/or defective motor. If on mechanical wear and motor good, replace MCB and return defective MCB to manufacturer.
8	Will not operate the motor	Check and verify the J2 and J3 cables are good, replace the PCB. If the problem persists, replace the MCB.
9	Incline does not move	Verify connections to the J3 & incline motor. If the connections look good, check F2.
10	Incline does not move	Verify connections to the J3 & incline motor. If the connections look good, check F2.

SECTION 5
TROUBLESHOOTINGS

No display on console

Possible causes:

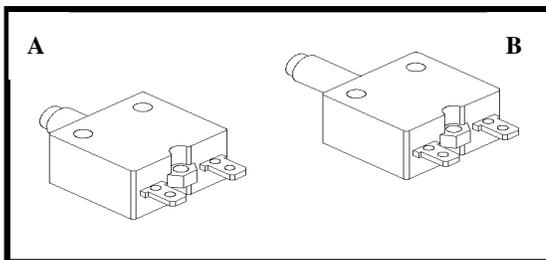
1. Breaker is damaged.
2. ON/OFF switch is damaged.
3. MCB is damaged.
4. 6-pin console cable is damaged.
5. PCB is damaged.

Fix:

1. (refer to “**MCB LED layout & indication**”.....**SECTION 6**)

Verify if LED 115vAC(AC) is lit. If this LED is lit, go to step 2.

If LED 115vAC(AC) is not lit, verify the following:



- ◆ 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.)

- ◆ Verify wire connection AC1 & AC2 on the MCB.

(refer to “wiring diagram”.....page 4-3)

- ◆ Verify the ON/OFF switch, breaker & socket wires are connected.

3. Verify if LED +11v & +18v is lit. If one is not lit, replace MCB.

4. Replace console cable.

5. Replace PCB.

Running speed is not stable

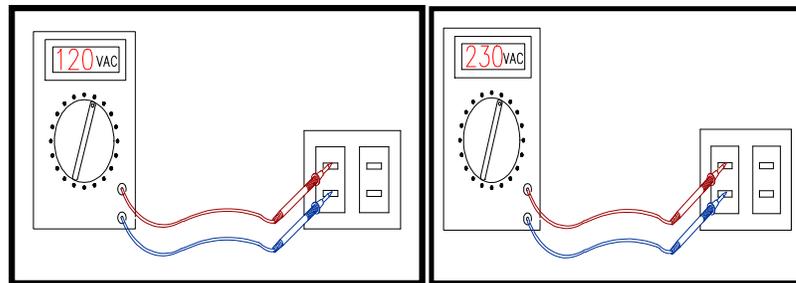
Possible causes:

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

Fix:

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

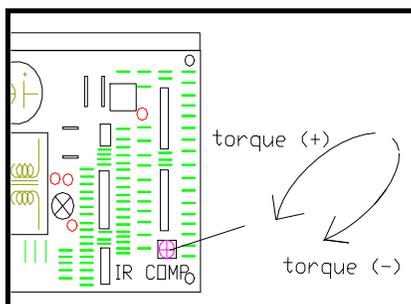
◆ **If the power voltage isn't within the range, look for a qualified**



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.**



3. Remove the motor cover and run the machine at low speed, then adjust the IR COMP of MCB.

◆ **If it hasn't been improved, replace new MCB.**

4. Replace new motor.

Treadmill starts to run by itself

Possible causes:

1. The console 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:

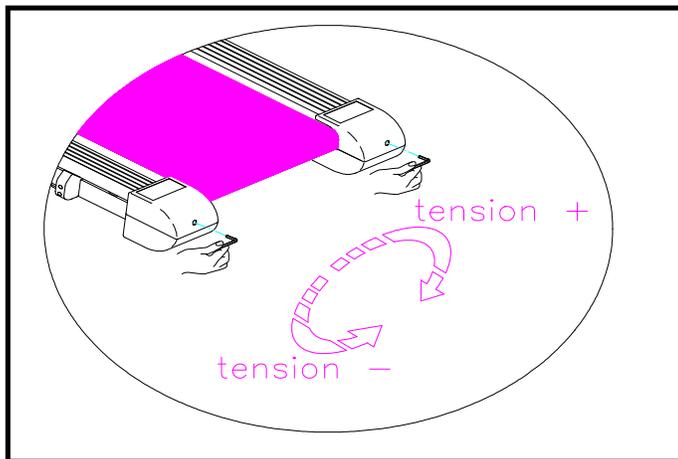
1. Disconnect the keypad and replace the keypad, and check again.
2. Replace the keypad.
3. Replace the PCB.

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:



noise has disappeared.

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**

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.
(Refer to "motor bearings replacement procedure"page 8-22 ~ 8-23)
 ◆ Replace the motor.

Treadmill will not start

Possible causes:

1. MCB is damaged.
2. 8-pin console cable is damaged.
3. PCB is damaged.
4. Motor is damaged.

Fix:

Open motor cover, verify wire connection MTR1 and MTR2 on the MCB then plug in the power cord and turn on the power switch. Then press "START" button.

Please check below item:

1. Verify the LED indicator of **MTR** is lit.
(If that LED MTR is not lit, replace MCB.)
2. Verify if LED **PWM** is lit.
(if it is not lit, replace 8-pin console cable.)
3. If LED **PWM** is still not lit, replace PCB.
4. Replace Motor.

Incline function does not work

Possible causes:

1. The 8-pin console cable is damaged.
2. Incline motor is damaged.
3. PCB is damaged.
4. MCB is damaged.
5. The incline setting is not correct.

Fix:

◆ Enter to the Engineering Mode to recalibrate the elevation values

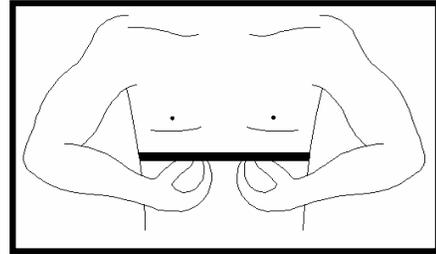
Then press "FAST" and "SLOW" key to see if the incline motor will be activated.

1. **OR**
Use a new 8-pin console cable to connect PCB and MCB. Then press "FAST" and "SLOW" key to see if the incline motor will be activated.
2. **OR**
Replace the incline motor.
3. **OR**
Replace PCB.
4. **OR**
Replace MCB.
5. Enter Engineering Mode to renew the **Auto-calibration mode** elevation parameter.

Heart-Rate-Control function does not work

Possible causes:

1. Transmitter does not contact with user's chest very well.
2. Transmitter(Polar-belt) is at low battery status.
3. Transmitter(Polar-belt) is damaged.
4. Heart-rate-control board is damaged.
5. PCB is damaged.



Fix:

1. Center the transmitter on your chest below the pectoral muscle(breast) as shown, then check again.
2. Remove the battery cover of the transmitter. Replace a new battery and check again.
 - ◆ Actually, as moisture may activate the transmitter, please dry transmitter after use.
3. **OR** Transmitter is damaged. Replace the Transmitter.
4. **OR** Heart-rate-control board is damaged. Replace the HR-control board.
5. **OR** PCB is damaged. Replace the PCB.

Error Messages on the Console

T9700 (TM51D/E) Error code definition

Error	Definition
E4	Incline motor parameter over the set
E5	Incline motor not to movement
E6	Incline motor the signal not answer
E7	Speed over the 2.0 mph/km/h

Error Message "E4" : Please enter the engineer mode to execute the AUTO-CAL MODE.

Error Message "E5" : 1. Please check the incline motor cable whether to inset MCB.
 2. Check the console signal whether transmission to MCB, you can refer to MCB LED UP and DOWN. If LED not light please check the console cable and console. If LED have light please replace the incline motor.

Error Message " E6" : 1. Please check the incline motor cable whether to inset MCB.
 2. Replace the incline motor

Error Message " E7" : Please enter the engineer mode to execute the AUTO-CAL MODE.

**T9600HRT (COMFORT)/T9600HRT/T9500HRT/T9450HRT/T9350/T9300
Error code definition**

Error	Definition
E4	Incline motor parameter over the set
E5	Incline motor not to movement
E6	Incline motor the signal not answer

TROUBLESHOOTINGS

Error Message " E4" : Please enter the engineer mode to execute the AUTO-CAL MODE

Error Message " E5" : 1. Please check the incline motor cable whether to inset MCB.
2. Check the console signal whether transmission to MCB, you can refer to MCB LED UP and DOWN. If LED not light please check the console cable and console. If LED have light please replace the incline motor

Error Message " E6" : 1. Please check the incline motor cable whether to inset MCB.
2. Replace the incline motor

T9200/T9250 Error code definition

Error code definition

Error	Definition
E2	Incline motor problem

Error Message " E2" :

1. Please check the incline motor cable whether to inset MCB.
2. Check the console signal whether transmission to MCB, you can refer to MCB LED UP and DOWN. If LED not light please check the console cable and console. If LED have light please replace the incline motor
3. Please enter the engineer mode to execute the AUTO-CAL MODE

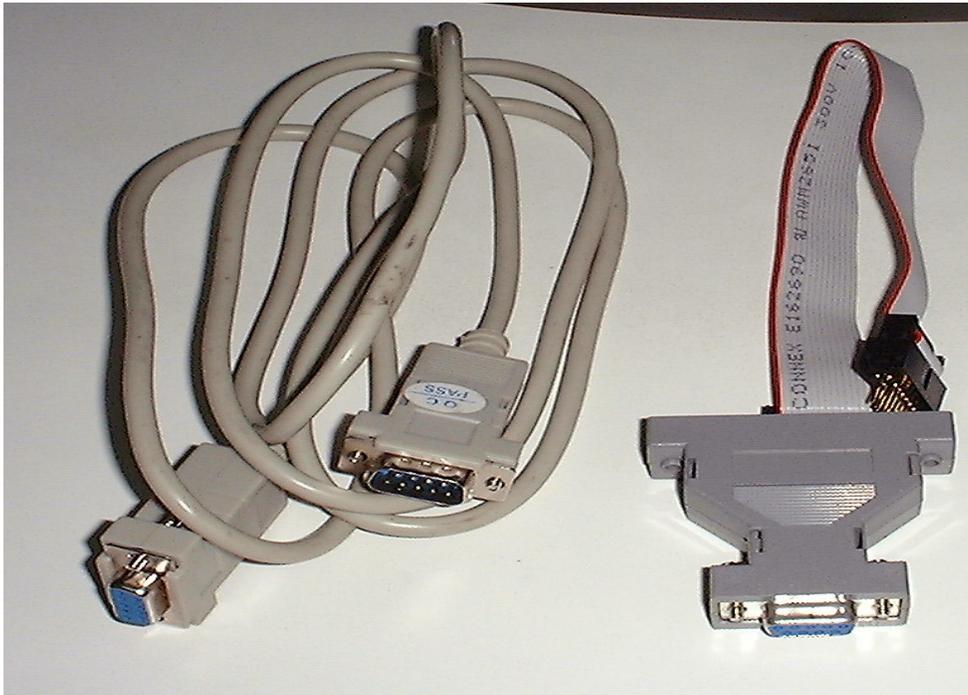
SECTION 6

SOFTWARE UPGRADE PROCEDURE

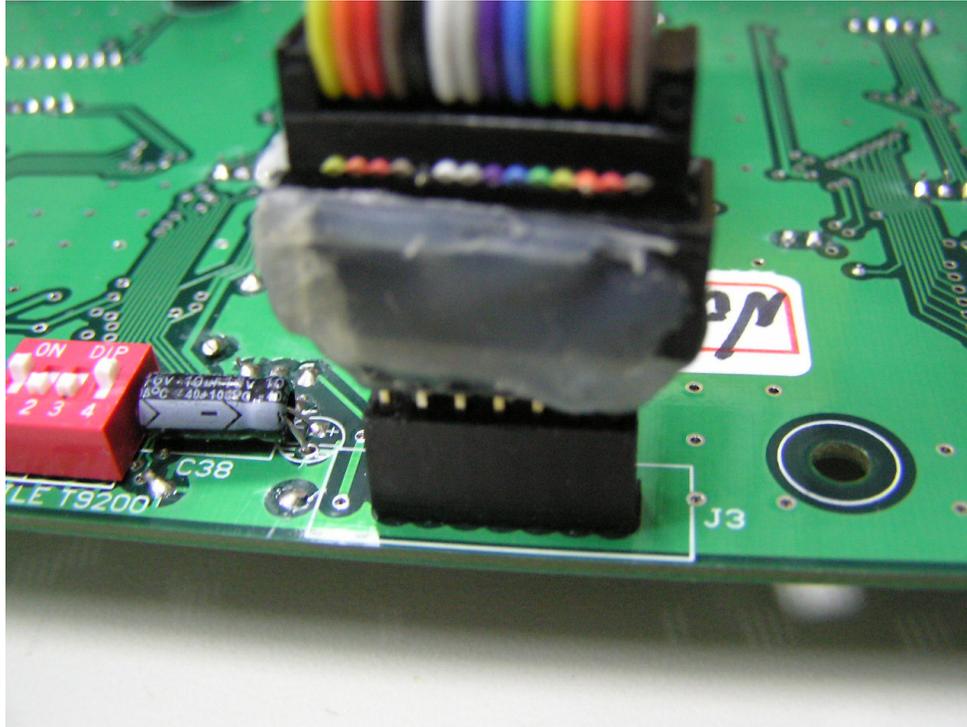
VISION SERIES TREADMILL SOFTWARE UPGRADE SOP

A. Service Tools & Accessories:

1. Computer (Notebook is preferred)
2. Connection cables (Parts NO: MQMXCV001 and MQMXCV002)
3. Software



B. Steps:



2. Connection cables & short pin is ready.
3. Turn ON the power switch.
4. Find out the software version file in the computer and then actuate/open the file by “click” the mouse twice.
5. The computer will be turned into DOS mode, and run the installation work. Automatically.
(It takes around 2 minutes for installation.)
6. After completed installation, the computer will show passing on the computer screen.
7. Turn OFF the power switch.
8. Disconnect the cables.
9. Turn ON the power switch and then enter into the engineering mode to confirm if the software had been installed/updated.