

# SPIRIT



## CT850 ENT Treadmill OWNER'S MANUAL

Please carefully read this entire manual before operating your new treadmill.

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**Thank you** for purchasing our product, please save these instructions. Please do not perform or attempt any customizing, adjustments, repair or maintenance that is not described in this manual, if you experience any difficulty, please contact our website.

**NOTE:**

Article number: CT850 ENT

Use: Studio use

Max. user's weight.:150 kg

 <p><b>Treadmill</b> <b>Model: CT850 ENT</b> <b>Rating: 120Vac, 60Hz, 9A</b> <b>Date code:</b></p> <p><b>WARNING: RISK OF ELECTRICAL SHOCK AND MOVING PARTS. DISCONNECT POWER BEFORE REMOVING ENCLOSURE.</b></p> <p><b>MISE EN GARDE: PIÈCES MOBILES. RISQUE DE SECOUSSE ÉLECTRIQUE. DÉBRANCHER AVANT D'ENLEVER L'EMBOÎTEMENT.</b></p> <p>Studio use Usage en Atelier Made In Taiwan Fabriqué à Taiwan</p>	
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**WARNING:** The equipment shall be installed on a stable base and properly leveled.

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# ***Important Safety Instructions***

**WARNING** - Read all instructions before using this appliance.

**DANGER** - To reduce the risk of electric shock disconnect your treadmill from the electrical outlet prior to cleaning and/or service work.

**WARNING** - To reduce the risk of burns, fire, electric shock, or injury to persons, install the treadmill on a flat level surface with access to a 120-volt AC, 20-Amp. grounded outlet. With only the treadmill plugged into the circuit.

**DO NOT USE AN EXTENSION CORD UNLESS IT IS 14AWG OR LARGER, WITH ONLY ONE OUTLET ON THE END.** The treadmill should be the only appliance in the electrical circuit. **DO NOT ATTEMPT TO DISABLE THE GROUNDED PLUG BY USING IMPROPER ADAPTERS, OR IN ANY WAY MODIFY THE CORD SET.** A serious shock or fire hazard may result along with computer malfunctions.

- Do not operate treadmill on deeply padded, plush or shag carpet. Damage to both carpet and treadmill may result.
- Do not block the rear of the treadmill. Provide a minimum of 1 meter clearance between the rear of the treadmill and any fixed object.
- Keep children away from the treadmill. There are obvious pinch points and other caution areas that can cause harm.
- Keep hands away from all moving parts.
- Never operate the treadmill if it has a damaged cord or plug. If the treadmill is not working properly, call your dealer.
- Keep the mains cord away from heated surfaces.
- Do not operate where aerosol spray products are being used or where oxygen is being administered. Sparks from the motor may ignite a highly gaseous environment.
- Never drop or insert any object into any openings.
- Do not use outdoors.
- To disconnect, turn all controls to the off position, remove tether cord, then remove the plug from the outlet.
- Do not attempt to use your treadmill for any purpose other than for the purpose it is intended.
- The pulse sensors are not medical devices. Various factors, including the user's movement, may affect the accuracy of heart rate readings. The pulse sensors are intended only as exercise aids in determining heart rate trends in general.
- Use handrails provided; they are for your safety.
- Wear proper shoes. High heels, dress shoes, sandals or bare feet are not suitable for use on your treadmill. Quality athletic shoes are recommended to avoid leg fatigue.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Do not modify the plug provided with the product if it will not fit the outlet; have a proper outlet installed by a qualified electrician.

## **CAUTION:**

**To assure continued FCC compliance:**

- 1. Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.**
- 2. This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body.**
- 3. Keep children under the age of 13 away from this machine.**

**Remove tether cord after use to prevent unauthorized treadmill operation.  
SAVE THESE INSTRUCTIONS - THINK SAFETY!**

## **MODEL: WT002**

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

Cet appareil radio est conforme au CNR d'Industrie Canada. L'utilisation de ce dispositif est autorisée seulement aux deux conditions suivantes :

(1) il ne doit pas produire de brouillage, et (2) l'utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé.

Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

## Important Electrical Information

### WARNING!

**NEVER** use a RCD - Residual Current Device (U.S. ver.= GFCI) - wall outlet with this treadmill. As with any appliance with a large motor, the RCD/GFCI will trip often. Route the power mains cord away from any moving part of the treadmill including the elevation mechanism and transport wheels.

**NEVER** remove any cover without first disconnecting AC power. If voltage varies by ten percent (10%) or more, the performance of your treadmill may be affected. **Such conditions are not covered under your warranty.** If you suspect the voltage is low, contact your local power company or a licensed electrician for proper testing.

**NEVER** expose this treadmill to rain or moisture. This product is **NOT** designed for use outdoors, near a pool or spa, or in any other high humidity environment. The temperature specification is 40 degrees c, and humidity is 95%, non-condensing (no water drops forming on surfaces).

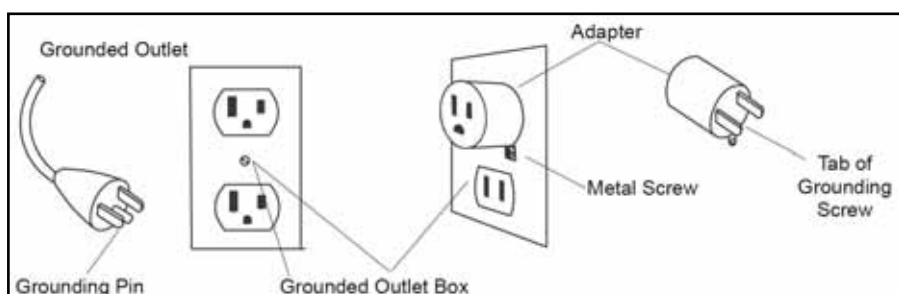
**Circuit breakers:** Some circuit breakers used in homes are not rated for high inrush currents that can occur when a treadmill is first turned on or even during normal use. If your treadmill is tripping the circuit breaker (even though it is the proper current rating and the treadmill is the only appliance on the circuit) but the circuit breaker on the treadmill itself does not trip, you will need to replace the breaker with a high inrush type. This is not a warranty defect. This is a condition we as a manufacture have no ability to control. This part is available through most electrical supply stores.

## Grounding Instructions

**This product must be grounded.** If the treadmill's electrical system should malfunction or breakdown grounding provides a path of least resistance for electric current, reducing the risk of electric shock. This product is equipped with a cord having an equipment-grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

**DANGER - Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product if it will not fit the outlet; have a proper outlet installed by a qualified electrician.**

This product is for use on a nominal 120-volt circuit, and has a grounding plug that looks like the plug illustrated below. A temporary adapter that looks like the adapter illustrated below may be used to connect this plug to a 2-pole receptacle as shown below if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet, (shown below) can be installed by a qualified electrician. The green colored rigid ear-lug, or the like, extending from the adapter, must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adapter is used, it must be held in place by a metal screw.



## ***Important Operation Instructions***

- **NEVER** operate this treadmill without reading and completely understanding the results of any operational change you request from the computer.
- Understand that changes in speed and incline do not occur immediately. Set your desired speed on the computer console and release the adjustment key. The computer will obey the command gradually.
- **NEVER** use your treadmill during an electrical storm. Surges may occur in your household power supply that could damage treadmill components.
- Use caution while participating in other activities while walking on your treadmill; such as watching television, reading, etc. These distractions may cause you to lose balance or stray from walking in the center of the belt; which may result in serious injury.
- **NEVER** mount or dismount the treadmill while the belt is moving. treadmills start with at a very low speed and it is unnecessary to straddle the belt during start up. Simply standing on the belt during slow acceleration is proper after you have learned to operate the unit. Always hold on to a handrail or hand bar while making control changes (incline, speed, etc.). Do not use excessive pressure on console control keys. They are precision set to function properly with little finger pressure. Pushing harder is not going to make the unit go faster or slower. If you feel the buttons are not functioning properly with normal pressure contact your dealer.

## ***Safety Tether Cord***

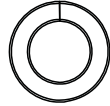
A safety tether cord is provided with this unit. It is a simple magnetic design that should be used at all times. It is for your safety should you fall or move too far back on the tread-belt. Pulling this safety tether cord will stop tread-belt movement.

### **To Use:**

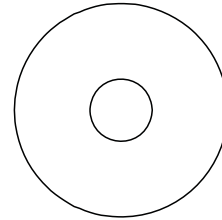
1. Place the magnet into position on the console control head. Your treadmill will not start and operate without this.
2. Fasten the plastic clip onto your clothing securely to assure good holding power. **Note:** The magnet has strong enough power to minimize accidental, unexpected stopping. The clip should be attached securely to make certain it does not come off. Be familiar with its function and limitations. The treadmill will stop, depending on speed, with a one to two step coast anytime the magnet is pulled off the console. Use the red Stop / Pause switch in normal operation.

# Assembly Pack Check List

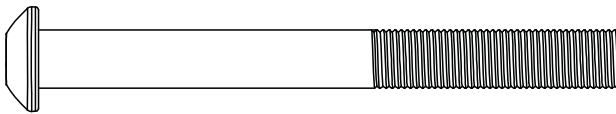
## Step1



#117 - 3/8" x16.5 x2.0T x4H  
Split Washer (10 pcs)



#116 -  $\phi$  3/8" x 35 x 2T  
Flat Washer (10 pcs)

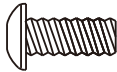


#144 - 3/8"-16 x 3"  
Button Head Socket Bolt (10 pcs)



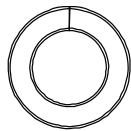
#134 - M5 x 12mm  
Phillips Head Screw (4 pcs)

## Step2

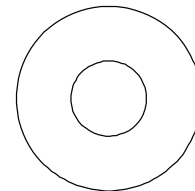


#134 - M5 x 12mm  
Phillips Head Screw (4 pcs)

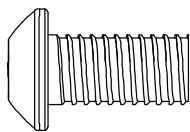
## Step3



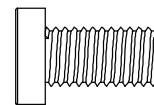
#117 - 3/8" x16.5 x2.0T x4H  
Split Washer (6 pcs)



#125 -  $\phi$  3/8" x25 x2T  
Flat Washer (6 pcs)

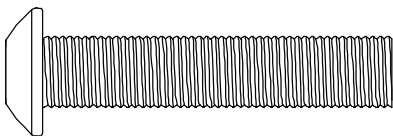


#145 - 3/8"-16 x3/4"  
Button Head Socket Bolt (6 pcs)

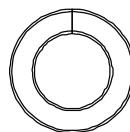


#146 - M8 x1.25x12mm  
Socket Head Cap Bolt (6 pcs)

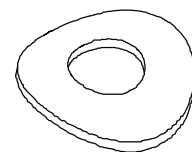
## Step4



#162 - 3/8" x1-3/4" Button  
Head Socket Bolt (2 pcs)



#117 -3/8" x16.5x2.0x4H  
Split Washer (2 pcs)



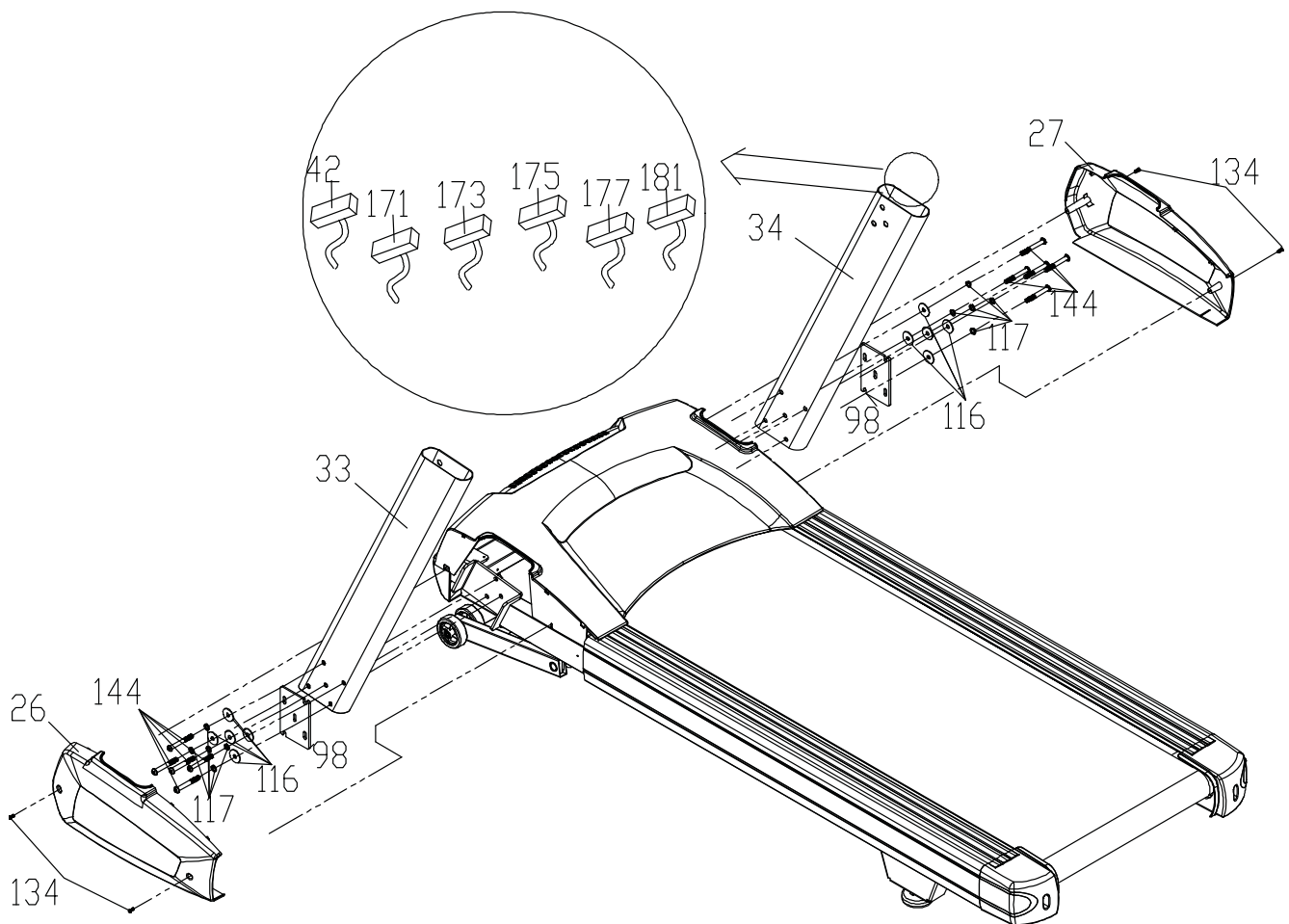
#163 - 10 x 23 x 1.5T  
Curved Wash (2 pcs)



# Assembly Instructions

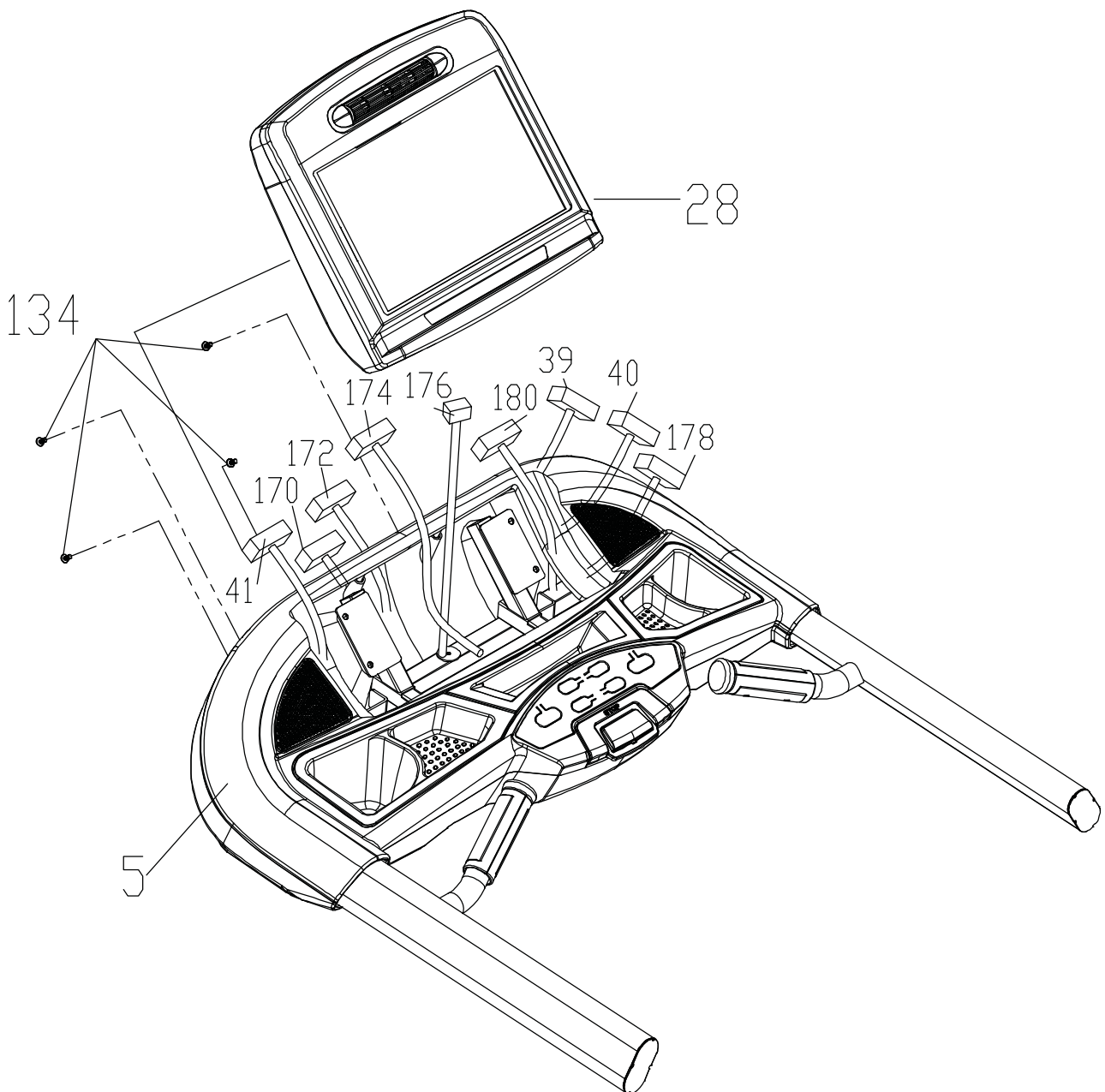
## Step 1: Uprights

- The right upright (34) is with preinstalled lower computer cable (42) · TV Signal Cable(171) · Console Power Cord(173) · network W/Cable(175) · CSAFE W/Cable(177) · HDMI Cable(181) · To install uprights on the frame base, special care must be taken not to pinch the computer cable between the upright and frame base. Use first 3/8"-16 x 3"\_Button Head Socket Bolt (144) together with 3/8" x 16.5 x 2.0 x 4H\_Split Washer (117), and 3/8" x 35 x 2T\_Flat Washer (116) through the top hole in the retaining plate (98), and corresponding top hole in the upright tube, and screw into the base frame. Now install the other four bolts 3/8"-16 x 3"\_Button Head Socket Bolt (144) together with 3/8" x 16.5 x 2.0 x 4H\_Split Washer (117), and 3/8" x 35 x 2T\_Flat Washer (116) and tighten all five bolts up.
- Same as the above step to install left upright (33).
- Use four M5 x 12L Phillips Head Screws (134) install left and right motor base cap (26, 27)



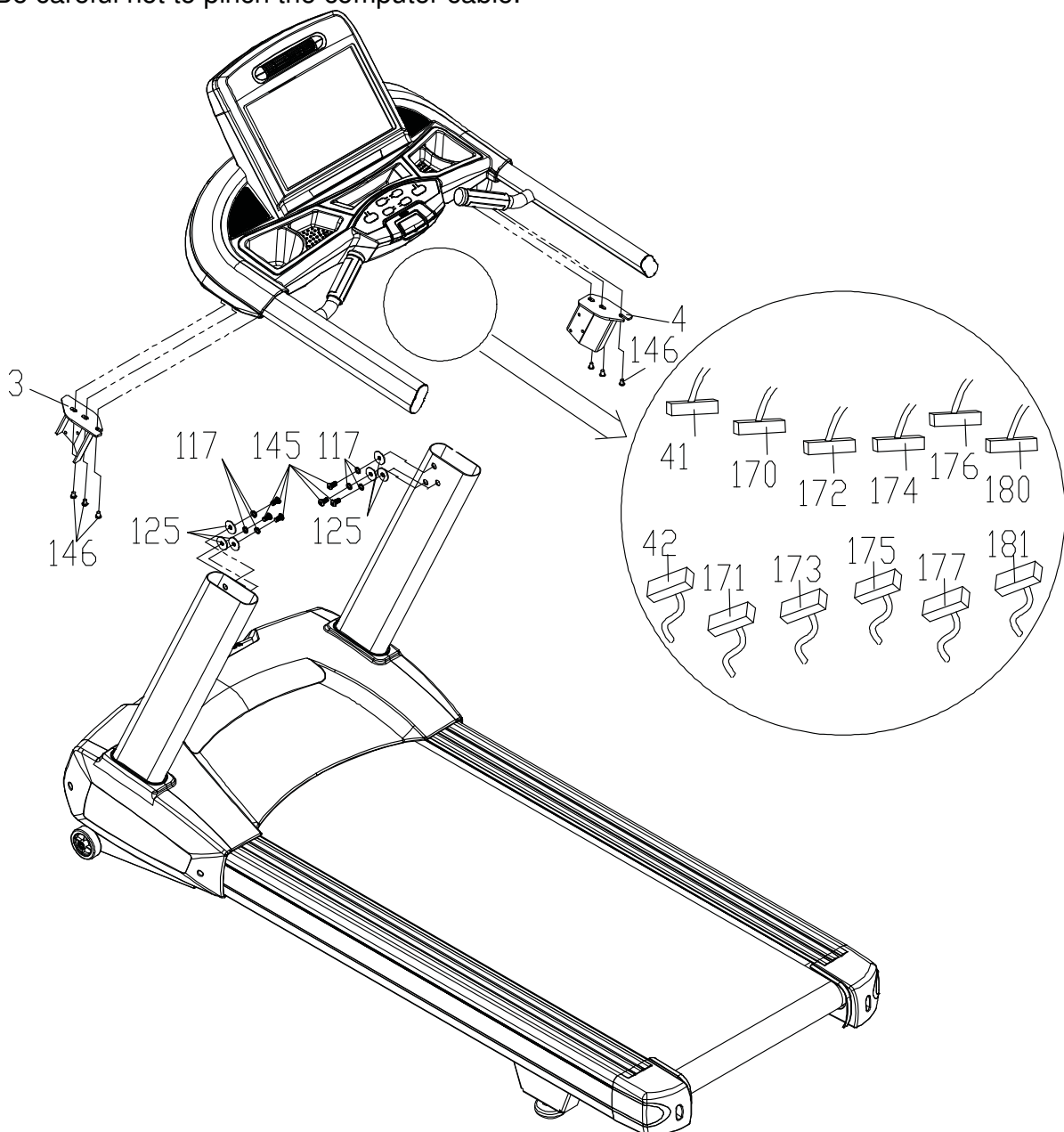
## Step 2: Installing the console

- Connect upper computer cable (41), TV Signal Cable(170), Console Power Cord(172) , etwork W/Cable(174) · CSAFE W/Cable(176) · HDMI Cable(180) · Handpulse Wire Upper(39)(40) and Ground Wire(178) all connect to the board on back of the console (28).
- Use four M5 × 12L Phillips Head Screws (134) to secure console assembly onto the console support (5).



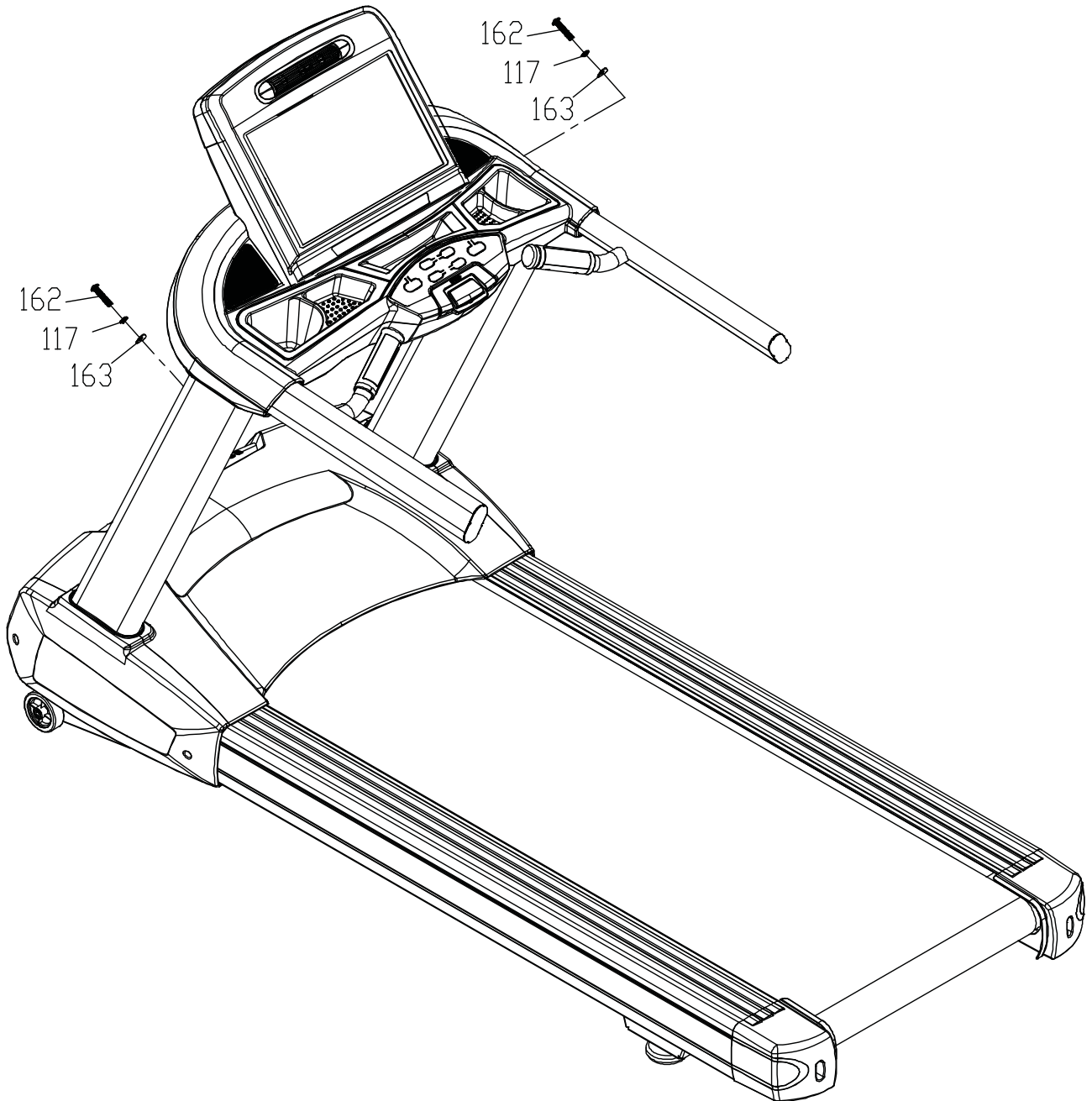
### Step 3: Installing console onto uprights

- Use six M8 × 1.25 × 12L Socket Head Cap Bolts (146) to secure the console on interface mounting bracket on uprights (3, 4).
  - Connect upper computer cable (41) and lower computer cable (42), upper TV Signal Cable (170) and lower TV Signal Cable (171), upper Console Power Cord(172) and lower Console Power Cord (173) · upper network W/Cable (174)and lower network W/Cable (175) · upper CSAFE W/Cable (176)and lower CSAFE W/Cable (177) · upper HDMI Cable (180) and lower HDMI Cable (181)
  - Use six 3/8"-16 × 3/4" Button Head Socket Bolts (145), together with six 3/8" × 16.5 × 2.0 × 4H Split Washers (117) and six 3/8" × 25 × 2T Flat Washers (125) on top of uprights.
- Be careful not to pinch the computer cable.



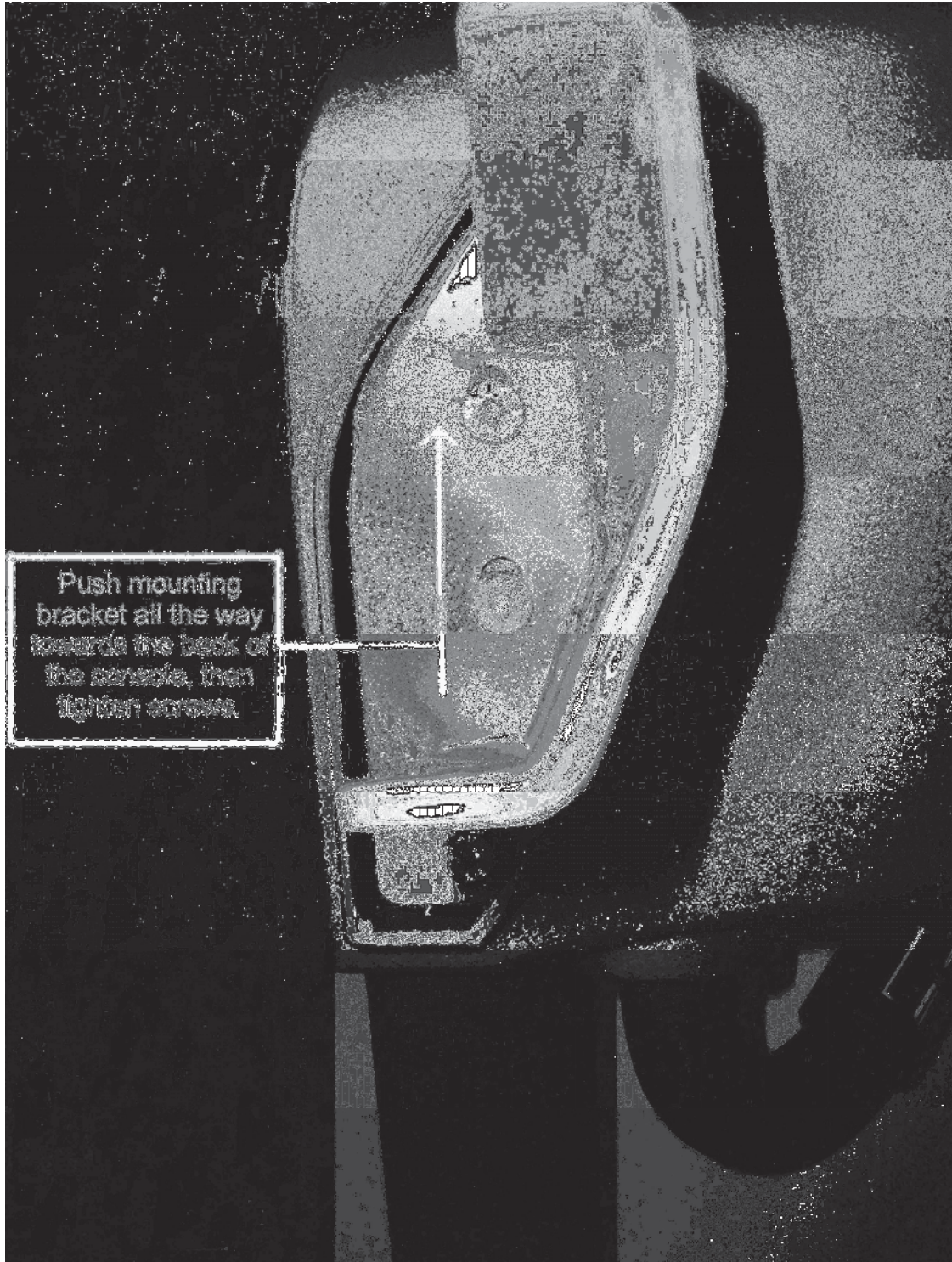
## Step 4: Upright reinforcement

Tighten one 3/8" -16 x 1-3/4" Button Head Socket Bolt(162), together with one 3/8" x16.5 x2T x4H Split Washer (117) and one 10 x23 x1.5T Curved Washer(163) through Upright (R) (34). Same way for Upright (L) (33).



## Important Assembly Instruction

When installing the console on interface mounting bracket on upright, make sure of pushing the mounting bracket all the way toward the back of console before tightening screws.



# Operation of Your Treadmill

## ■ Console ( WT002 )



### **Starting the operation:**

- Plug in the power cord and switch on the main power switch located at the front, under the motor hood of the treadmill and make sure that the safety key is put on as the treadmill is unable to operate without the safety key.
- When the power is turned on, the screen will show the initial image and then enter the ready mode which is the beginning of the treadmill operation.

First page image for you to operate by touching the icons.



Quick operating functional buttons are installed.



### **Quick start operation:**

- Press "START" button and the belt runs with 0.8 km/h (0.5 MPH).
- Press FAST/SLOW buttons further to adjust the speed.
- Press and hold "SLOW" button to slow down to the desired speed.
- Press first page button or "STOP" button to stop the belt.

### **Featuring functions of this treadmill:**

Touch-control screen is installed for operating the treadmill. You can directly touch any functional button on the screen or through quick buttons on the bottom to control. On the bottom, there are "FAST"/"SLOW" buttons to control the speed, "START" button to begin the workout, "STOP" button to pause/stop running and "UP", "DOWN" buttons to control the incline of the treadmill.

**Pause/Stop:**

- Press “STOP” button once or first page button on the screen, the belt will slow down gradually till fully stop and keep values of time, distance and calorie on the screen. The screen will reset after 5 minutes of counting down then return to the previous status.
- Press “START” button to continue the workout during pause.
- Press “STOP” button twice will terminate the setting with displaying the workout summary. If “STOP” button is pressed the third time, the console will return to the initial status (the beginning).

**Incline:**

- The incline is changeable any time during the workout.
- Press and hold “UP” or “DOWN” button or Incline +/- button on the screen to change the incline to the desired level.

**Heart rate testing feature:**

Pulse (heart rate) on the screen shows the current value of the heart beats per minute. You must hold both left and right stainless steel sensors to test the pulse. The pulse value will be shown on the screen continuously. You can also use hand pulse sensors for heart rate control. The console can also detect the pulse from heart rate stripe which is bipolar including signal transmitting.

**To turn off the treadmill:**

The screen will turn it off (sleep status) when there is no command within 30 minutes. This is called sleeping mode and the treadmill will stop most of its activity except the minimum circuit detecting system for press buttons so that when there is any button activation, the treadmill restarts. There is only very little electric current (like a TV turned off) in the sleeping mode. It is fine to leave the main power switch on during sleeping mode.



## Below is the instruction for touch screen operation:

### • First page HOME

There are four items to be selected. Generally the Language would be the first item to select.



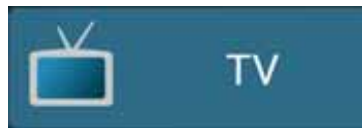
When you press Language button on the first page HOME, it enters the menu with all language selections.



There are 12 languages to choose.

Touch the desired language, and the system will return to the first page to begin the other program, or if you don't want to change the language, you could press HOME button at the upper left corner to return to the first page or touch the return icon at right top corner to return to the previous page to continue your operation.

When TV button on the first page HOME is pressed, it directly enters TV interface.



Now you can enjoy TV programs. If you want to enjoy TV while exercising, press "START" button at front of the treadmill to start it.



You can change the TV channel by using up/down buttons on the TV channel or the channel control panel buttons at the right side of the screen for quick channel switching. You can also use up/down buttons on the volume to change the sound volume. If you want to be quiet, touch "Mute" button. Touch Max Screen to switch to full screen. When you want to resume the original screen display, just touch the image and the screen resumes. Use "FAST" and "SLOW" buttons to control the speed and "UP" or "DOWN" button to set the incline level during the exercise. When you want to pause, just press "HOME" button at left top or press "STOP" button once and the pause window will show up. If you want to stop, you can choose to end the program or press "STOP" button again to terminate the setting and show up the workout summary. If "STOP" button is pressed the third time, it returns to the initial status (the beginning)

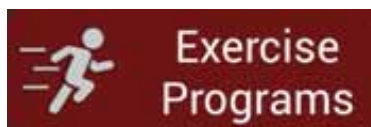
When you touch “Internet” button on HOME first page, it rapidly enters internet interface.



There are 6 internet connections to choose for you to go internet while you are exercising. (internet cable connection or WIFI connection is required) Press “START” button at front of the treadmill to start it.

Use “FAST” and “SLOW” buttons to control the speed and “UP” or “DOWN” button to set the incline level during the exercise. When you want to pause, just press “HOME” button at left top or press “STOP” button once and the pause window will show up. If you want to stop, you can choose to end the program or press “STOP” button again to terminate the setting and show up the workout summary. If “STOP” button is pressed the third time, it returns to the initial status (the beginning)

When you touch “Exercise Program” button on HOME first page, it directly enters Menu interface.



There are 12 program modes in Menu interface for you to choose the desired program mode. For Manual Program as an example, just touch Manual button on the screen to enter the program for Manual.

## MANUAL



Press “Profile” button to enter the “Profile” interface. If this program is unwanted, just press HOME icon at left top to return to the first page, or return icon at right top to return to the previous page to continue the last operation. If other profile is wanted, touch left or right arrow button to choose the wanted program.

**The Profile interface image is as below.**



If it is the program you want, touch “ENTER” button at the bottom once to enter next image. If not, touch the HOME icon at left top to return to the first page or the return icon at right top to return to the previous page to continue the last operation. If other profile is wanted, touch left or right arrow button to choose the wanted program.



This image is for setting program time, user's age and weight. Press "ENTER" button after entering parameters to confirm. Then press "START" button to start the Manual Program. If not, just press HOME icon at left top to return to the first page, or return icon at right top to return to the previous page to continue the last operation.

**The "SIMPLE" image after start is as below.**



The image after start is "SIMPLE" which is with all values on the bottom concerning your workout. The speed value is at right side while the incline level is at the left side and the value is adjustable with "UP" or "DOWN" button.

The bar chart for the speed and incline is in the middle and to be used with "SPEED" and "INSLINE" button to switch between them. TV interface button is on top to touch for entering the TV mode, or touch "INTERNET" for entering the internet interface. If "PROGRAM" button is touched, the system will ask you if you want to return to the first page for program selection with a field track and dashboard interfaces for the selection.

Touch the “TRACK” button at the bottom to enter the track interface.



The operating is similar only with different interface. The image shows the track with number of laps and other values.

Touch “DASHBOARD” button on the bottom to enter the dashboard interface.



The operating is similar with different interface only. You can choose one of three interfaces on the bottom with your own preference.

When using the first page button or “STOP” button to end the program, it enters the summary image.



On the summary image, all accumulating values concerning the workout are displayed. You can touch the HOME button at left top or press “STOP” button to return to the first page image.

## Programmable Features

The New TREADMILL offers twelve preset programs, HILL, FAT BURN, CARDIO, STRENGTH, CALORIE, INTERVAL, 5K RUN, 10K RUN, HR , CUSTOM, a Gerkin protocol based Fitness Test and one Manual program.



### Preset Features:

#### To choose and start preset program:

- Select a program then press the ENTER key to begin customizing the program with your personal data, or just press the start key to begin the program with the default settings.
- After selecting a program and pressing ENTER to set your personal data, the touch Time window will darken with the default value of 20 minutes. You may use numeric keypads to adjust the time. After adjusting the time, press ENTER confirm.  
(Default time is 20 minutes)
- The touch Age window will now be darkened a value indicating your Age. Entering the correct Age will affect the Heart rate bar graph accuracy and also needed for the HR programs. use numeric keypads to make adjustments, and then press ENTER confirm.  
(Default age is 30 years old. Range=10 to 110 )
- The touch Weight window will now be darkened a value indicating your Bodyweight. Entering your correct bodyweight affects the Kcal readout accuracy. use numeric keypads to make adjustments, and then press ENTER confirm.  
(Default weight is 70KG. Range=10 to 150 )
- The touch Mix Speed window will now be darkened a value indicating your Speed. Entering your correct Speed affects the Mix Speed readout accuracy. use numeric keypads to make adjustments, and then press ENTER confirm.  
(Default speed is 5.0 KM/H )
- Now press the START key to begin your workout.
- There will be a 3 minute warm-up to begin. You can press the START button to bypass this and go straight to the workout. During the warm-up the clock will count down from 3 minutes.  
( 5K RUN · 10K RUN · HR · CUSTOM · CALORIE · Military Fitness Test and the manual program don't have a warm-up mode.)



## Preset programs speed and incline settings

The preset program speed and incline levels are shown in the chart below. The Speed numbers shown in the chart indicate a percentage of the top speed of the program. For instance, the first Speed setting for program HILL shows the number 20. This means that this segment of the program will have a speed that is 20% of the top speed for the program (The user sets the top speed in the procedure above). If the user sets the top speed to 10 mph(16kph), then the first segment will be 2 mph(3.2kph). You will notice that segment 12 shows 100 which means, the speed will be set to 100% of 10 mph or simply 10 mph(16kph).

Prog	SEG	Warm up			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Cool down		
Hill	Speed	20	30	40	50	62.5	62.5	70	70	75	75	87.5	87.5	100	100	87.5	87.5	75	75	70	70	62.5	62.5	80	40	30	20
	Incline	0	0	0	0	1	2	3	3	4	3	4	4	5	3	4	3	4	5	4	3	1	1	0	0	0	0
Fatburn	Speed	20	30	40	50	62.5	75	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	75	50	40	30	20
	Incline	0	0	0	0	1	2	3	3	4	5	3	4	4	3	2	3	4	5	6	4	2	1	0	0	0	0
Cardio	Speed	20	30	40	50	60	60	70	70	70	80	70	70	80	80	60	70	80	80	70	70	70	100	70	40	30	20
	Incline	0	0	0	0	1	1	2	2	3	2	2	3	1	2	3	2	2	4	2	3	1	1	0	0	0	0
Strength	Speed	20	30	40	50	62.5	62.5	70	70	75	75	80	80	87.5	95	95	100	100	100	100	100	87.5	75	50	40	30	20
	Incline	0	0	0	0	1	2	4	6	8	7	6	5	4	3	3	4	5	7	7	5	3	1	0	0	0	0
Interval	Speed	20	30	40	50	62.5	62.5	100	100	62.5	62.5	100	100	62.5	62.5	100	100	62.5	62.5	100	10	62.5	62.5	50	40	30	20
	Incline	0	0	0	0	1	2	3	5	2	3	6	2	3	7	2	3	8	2	3	5	3	1	0	0	0	0

## CALORIE Program:

- Select a CALORIE program then press the ENTER key to begin customizing the program with your personal data, or just press the start key to begin the program with the default settings.
- The touch Calories window will now be darkened a value indicating your consume calories. use numeric keypads to make adjustments, and then press ENTER confirm, display takes time and modify
- Now press the START key to begin your workout.

## Custom Program:

- Select a Custom program then press the ENTER key to begin customizing the program with your personal data, or just press the start key to begin the program with the default settings.
- The window will show the corresponding speed profile and incline profile, user can choose rename program by touching rename icon and entering profile. After new setting, speed profile and incline profile will be shown on screen for adjustment.
- Press next key save icon for new speed profile and incline profile then pop out next message window for Time \ Age, Weight and Mix Speed entry.
- Now press the START key to begin your workout test for new program.


## 5 Km and 10Km Run:

This program automatically sets a 5K or 10K (5 or 10 kilometer) distance as your goal. The track display will show one loop that is the equivalent of 5 or 10 kilometers and the Distance window will also show 5K or 10K to start. When the program begins the Distance will count down; once it reaches zero the program ends.


\*Please note that the Speed readout is in MPH if the console is not set to Metric readings.

## Fitness Test:

When the Fit-Test key is pressed the DM displays the 8 different tests available: Gerkin, WFI (Modified Gerkin), Army (PFT), Navy (PRT), Air Force (PRT), Marines (PFT), Physical Efficiency Battery (PEB) For U.S. Federal Law Enforcement, US Coast Guard




### Gerkin Table




The Gerkin protocol, also known as the fireman's protocol, is a sub maximal Vo2 (volume of oxygen) test. The test will increase speed and elevation alternately until you reach 85% of your Max heart rate. The time it takes for you to reach 85% determines the test score (Vo2 max)  
 Note: Use a heart rate strap for best results.

STAGE	TIME	SPEED	ELEVATION	Vo2 MAX	STAGE	TIME	SPEED	ELEVATION	Vo2 MAX	STAGE	TIME	SPEED	ELEVATION	Vo2 MAX	STAGE	TIME	SPEED	ELEVATION	Vo2 MAX
1	0 to 1:00	4.5mph	0%	31.15	4.3	3:45	5.0mph	4%	46.2	7.2	6:30	6.0mph	6%	58.8	10.1	9:15	6.5mph	10%	72.1
2.1	1:15	4.5mph	2%	32.55	4.4	4:00	5.0mph	4%	46.5	7.3	6:45	6.0mph	6%	60.2	10.2	9:30	6.5mph	10%	73.1
2.2	1:30	4.5mph	2%	33.6	5.1	4:15	5.5mph	4%	48.6	7.4	7:00	6.0mph	6%	61.2	10.3	9:45	6.5mph	10%	73.8
2.3	1:45	4.5mph	2%	34.65	5.2	4:30	5.5mph	4%	50	8.1	7:15	6.0mph	8%	62.3	10.4	10:00	6.5mph	10%	74.9
2.4	2:00	4.5mph	2%	35.35	5.3	4:45	5.5mph	4%	51.4	8.2	7:30	6.0mph	8%	63.3	11.1	10:15	7.0mph	10%	76.3
3.1	2:15	5.0mph	2%	37.45	5.4	5:00	5.5mph	4%	52.8	8.3	7:45	6.0mph	8%	64	11.2	10:30	7.0mph	10%	77.7
3.2	2:30	5.0mph	2%	39.55	6.1	5:15	5.5mph	6%	53.9	8.4	8:00	6.0mph	8%	65	11.3	10:45	7.0mph	10%	79.1
3.3	2:45	5.0mph	2%	41.3	6.2	5:30	5.5mph	6%	54.9	9.1	8:15	6.5mph	8%	66.5	11.4	11:00	7.0mph	10%	80
3.4	3:00	5.0mph	2%	43.4	6.3	5:45	5.5mph	6%	56	9.2	8:30	6.5mph	8%	68.2					
4.1	3:15	5.0mph	4%	44.1	6.4	6:00	5.5mph	6%	57	9.3	8:45	6.5mph	8%	69					
4.2	3:30	5.0mph	4%	45.15	7.1	6:15	6.0mph	6%	57.7	9.4	9:00	6.5mph	8%	70.7					

## WFI



### WFI Table



The WFI test is a sub maximal Vo2 (volume of oxygen) test. The test will increase speed and elevation alternately until you reach 85% of your Max heart rate. The time it takes for you to reach 85% determines the test score (Vo2 max).  
 Note: Use a heart rate strap for best results.

TIME	SPEED	GRADE	TIME	SPEED	GRADE
0:00 to 1:00	3.0mph	0%	9:01 to 10:00	6.0mph	6%
1:01 to 2:00	3.0mph	0%	10:01 to 11:00	6.0mph	8%
2:01 to 3:00	3.0mph	0%	11:01 to 12:00	6.0mph	8%
3:01 to 4:00	4.5mph	0%	12:01 to 13:00	6.5mph	10%
4:01 to 5:00	4.5mph	2%	13:01 to 14:00	7.0mph	10%
5:01 to 6:00	5.0mph	2%	14:01 to 15:00	7.0mph	12%
6:01 to 7:00	5.0mph	4%	15:01 to 16:00	7.5mph	12%
7:01 to 8:00	5.5mph	4%	16:01 to 17:00	7.5mph	14%
8:01 to 9:00	5.5mph	6%	17:01 to 18:00	8.0mph	14%

## Army

**Army Table**

A timed 2 mile run. You control the speed manually. Maximum time allowed to pass the test:

AGE	MALE	FEMALE	AGE	MALE	FEMALE
17-21	16:36	19:42	42-46	19:54	25:18
22-26	17:30	20:36	47-51	20:48	25:36
27-31	17:54	21:42	52-56	21:06	25:48
32-36	18:48	23:06	57-61	21:06	26:06
37-41	19:30	24:06	62+	21:06	26:18

## Navy

**Navy Table**

A timed 1.5 mile run. You control the speed manually. Maximum time allowed to pass the test:

AGE	MALE	FEMALE	AGE	MALE	FEMALE
17-19	12:21	15:01	45-49	16:09	17:24
20-24	13:31	15:31	50-54	16:46	17:31
25-29	14:01	16:09	55-59	17:10	18:35
30-34	14:31	16:46	60-64	18:53	19:44
35-39	15:01	17:01	65+	20:36	20:53
40-44	15:31	17:16			

## Air Force

**Air Force Table**

A timed 1.5 mile run. You control the speed manually. Maximum time allowed to pass the test:

AGE	MALE	FEMALE
<30	13:36	16:22
30-39	14:00	16:57
40-49	14:52	18:14
50-59	16:22	19:43
60+	18:14	22:28

## Marines

**Marine Corps Table**

A timed 3 mile run. You control the speed manually. Maximum time allowed to pass the test:

AGE	MALE	FEMALE
17-26	28:00	31:00
27-39	29:00	32:00
40-45	30:00	33:00
46+	33:00	36:00

## Physical Efficiency Battery (PEB) For U.S. Federal Law Enforcement

**PEB Table**

A timed 1.5 mile run. You control the speed manually. Maximum time allowed to pass the test:

AGE	MALE	FEMALE
20-24	10:53	13:36
25-29	11:05	13:43
30-34	11:26	13:43
35-39	11:47	14:37
40-44	12:28	15:12
45-49	13:07	16:02
50-54	13:49	17:02
55-59	14:48	17:37
60+	15:07	17:37

## US Coast Guard

**Coast Guard Table**

A timed 1.5 mile run. You control the speed manually. Maximum time allowed to pass the test:

AGE	MALE	FEMALE
<30	12:52	15:27
30-39	13:37	15:58
40-49	14:30	16:59
50-59	15:27	17:56
60+	16:41	18:45

## **Before the test:**

- Make sure you are in good health; check with your physician before performing any exercise if you are over the age of 35 or persons with pre-existing health conditions.
- Make sure you have warmed up and stretched before taking the test.
- Do not take in caffeine before the test.
- If using the hand pulse sensors hold the hand grips gently, do not tense up.

## **Fitness test programming:**

Press the Fitness-test 8 different tests available button and press enter.

1. The message window will ask you to enter your gender. You may adjust the Age and Weight setting by using numeric keypads.
2. Now press START to begin the test.

## **During the test:**

- The console must be receiving a steady heart rate for the test to begin. You may use the hand pulse sensors or wear a heart rate chest strap transmitter.  
The test will start with a 3 minute warm-up at 4.8kph (3mph) before the actual test begins(only Gerkin and WFI).
- The data shown during the test is:
  - a. Time indicates total elapsed time
  - b. Incline in percent grade
  - c. Distance in Miles or Kilometers depending on preset parameter.
  - d. Speed in MPH or KPH depending on preset parameter.
  - e. Target Heart Rate and Actual Heart Rate are shown in the message window.

## **After the test:**

- Cool down for about one to three minutes.
- Take note of your score because the console will automatically return to the start-up mode after a few minutes.

## What your score means:

### VO2max for male and fitted female

	18-25	26-35	36-45	46-55	56-65	65+
	years old	years old	years old	years old	years old	years old
excellent	>60	>56	>51	>45	>41	>37
good	52-60	49-56	43-51	39-45	36-41	33-37
above average	47-51	43-48	39-42	35-38	32-35	29-32
average	42-46	40-42	35-38	32-35	30-31	26-28
below average	37-41	35-39	31-34	29-31	26-29	22-25
poor	30-36	30-34	26-30	25-28	22-25	20-21
very poor	<30	<30	<26	<25	<22	<20

### VO2max for female and non-fitted male

	18-25	26-35	36-45	46-55	56-65	65+
	years old	years old	years old	years old	years old	years old
excellent	56	52	45	40	37	32
good	47-56	45-52	38-45	34-40	32-37	28-32
above average	42-46	39-44	34-37	31-33	28-31	25-27
average	38-41	35-38	31-33	28-30	25-27	22-24
below average	33-37	31-34	27-30	25-27	22-24	19-22
poor	28-32	26-30	22-26	20-24	18-21	17-18
very poor	<28	<26	<22	<20	<18	<17

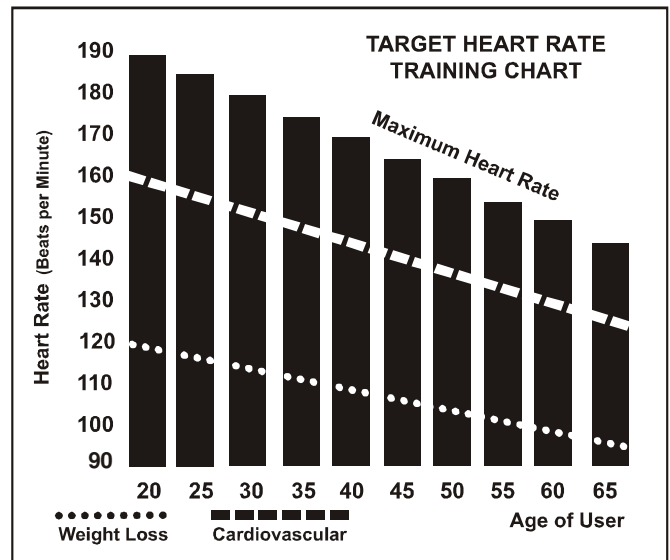
# Target Heart Rate

The old motto, “no pain, no gain”, is a myth that has been overpowered by the benefits of exercising comfortably. A great deal of this success has been promoted by the use of heart rate monitors. With the proper use of a heart rate monitor, many people find that their choice of exercise intensity is either too high or too low and exercise is much more enjoyable by maintaining their heart rate in the desired benefit range.

To determine the benefit range in which you wish to train, you must first determine your Maximum Heart Rate, which is the highest your heart rate should go to. This can be accomplished by using the following formula:

$$220 - \text{User's Age} = \text{Maximum Heart Rate}$$

(If you enter your age during programming of the console the console will perform this calculation automatically).



This is used for the HR control programs and also for the Heart rate bar graph. After calculating your Maximum Heart Rate, you can decide upon which goal you would like to pursue. The two most popular goals of exercise are cardiovascular fitness (training for the heart and lungs) and weight control. The black columns on the chart above represent the Maximum Heart Rate for a person whose age is listed at the bottom of each column. The heart rate training zone for either cardiovascular fitness or weight loss is represented by two different lines, which cut diagonally through the chart. A definition of the lines' goal is in the bottom left-hand corner of the chart. If your goal is cardiovascular fitness or if it is weight loss, it can be achieved by training at 80% or 60%, respectively, of your Maximum Heart Rate on a schedule approved by your physician. Consult your physician before participating in any exercise program.

With all SPIRIT Heart Rate Control treadmills, you may use the heart rate monitor feature without using the Heart Rate Control program. This function can be used during any of the different programs. The Heart Rate Control program automatically controls incline.

## CAUTION!

The target value used in HR programs is a suggestion only for normal, healthy individuals. Do not exceed your limits! You may not be able to obtain your chosen target. If in question, enter a higher age value that will set a lower target goal.

## ***Using a Heart Rate Transmitter (Optional)***

How to wear your wireless chest strap transmitter:

1. Attach the transmitter to the elastic strap using the locking parts.
2. Adjust the strap as tightly as possible as long as the strap is not too tight to remain comfortable.
3. Position the transmitter with the logo centered in the middle of your body facing away from your chest (some people must position the transmitter slightly left of center). Attach the final end of the elastic strap by inserting the round end and, using the locking parts, secure the transmitter and strap around your chest.
4. Position the transmitter immediately below the pectoral muscles.
5. Sweat is the best conductor to measure very minute heart beat electrical signals. However, plain water can also be used to pre-wet the electrodes (2 black square areas on the reverse side of the belt and either side of transmitter). It's also recommended that you wear the transmitter strap a few minutes before your work out. Some users, because of body chemistry, have a more difficult time in achieving a strong, steady signal at the beginning. After "warming up", this problem lessens. As noted, wearing clothing over the transmitter/strap doesn't affect performance.
6. Your workout must be within range - distance between transmitter/receiver – to achieve a strong steady signal. The length of range may vary somewhat but generally stay close enough to the console to maintain good, strong, reliable readings. Wearing the transmitter immediately against bare skin assures you of proper operation. If you wish, you may wear the transmitter over a shirt. To do so, moisten the areas of the shirt that the electrodes will rest upon.

### **Erratic Operation:**

**CAUTION!** Do not use this treadmill for Heart Rate Control unless a steady, solid Actual Heart Rate value is being displayed.

High, wild, random numbers being displayed indicate a problem.

#### **Areas to look for on interference:**

- (1) Treadmill not properly grounded - **A must!**
- (2) Microwave ovens, TV's, small appliances, etc.
- (3) Fluorescent lights.
- (4) Some household security systems.
- (5) Perimeter fence for a pet.
- (6) The antenna that picks up your heart rate is very sensitive. If there is an outside noise source, turning the whole machine 90 degrees may de-tune the interference.
- (7) If you continue to experience problems contact your dealer.

### **WARNING!**

**DO NOT USE THE HEART RATE CONTROL PROGRAM IF YOUR HEART RATE IS NOT REGISTERING PROPERLY ON THE TREADMILL'S DISPLAY!**



## ***Heart Rate Control Program***

### **How the Heart Rate Control Programs Work :**

Heart Rate Control (HRC) uses your treadmill's incline system to control your heart rate. Increases and decreases in elevation affect heart rate much more efficiently than changes in speed alone. The HRC program automatically changes elevation gradually to achieve the programmed target heart rate.

### **Selecting a Heart Rate Control Program:**

You have the option, during the setup mode, to choose either the HR program. The Weight Control program will attempt to maintain your heart rate at 65% of your Maximum Heart Rate. Your Maximum Heart Rate is based upon a formula that subtracts your age from a constant of 220. Your HR setting is automatically calculated during the setup mode when you enter your age.

## ***Heart Rate Control***

1. Press HR button and press ENTER.
2. The touch Time/Age/Weight/Target HR(65%) window will now be darkened a value indicating your Numerical.
3. Now press START to begin the test.
4. During the program you may increase or decrease the target heart rate by pressing the Incline Up/Down buttons.

# GENERAL MAINTENANCE

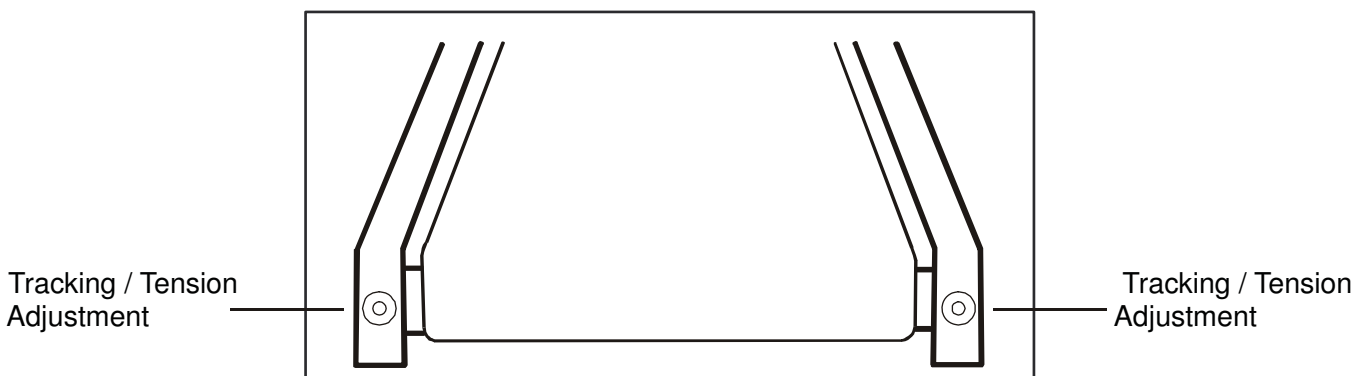
**Belt and Bed** - Your treadmill uses a very high-efficient low-friction bed. Performance is maximized when the bed is kept as clean as possible. Use a soft, damp cloth or paper towel to wipe the edge of the belt and the area between the belt edge and frame. Also reach as far as practical directly under the belt edge. This should be done once a month to extend belt and bed life. Use water only - no cleaners or abrasives. A mild soap and water solution along with a nylon scrub brush will clean the top of the textured belt. **Allow the belt to dry before using.**

**Belt Dust** - This occurs during normal break-in or until the belt stabilizes. Wiping excess off with a damp cloth will minimize buildup.

**General Cleaning** - Dirt, dust, and pet hair can block air inlets and accumulate on the running belt. On a monthly basis: vacuum underneath your treadmill to prevent buildup. Once a year, you should remove the black motor hood and vacuum out dirt that may accumulate. **UNPLUG POWER CORD BEFORE THIS TASK.**

## BELT ADJUSTMENTS:

**Tread-belt Tension Adjustment** - Adjustment must be made from the rear roller. The adjustment bolts are located at the end of the step rails in the end caps, as noted in diagram below.



**Note:** Adjustment is through small hole in the end cap.

Tighten the rear roller bolts only enough to prevent slippage at the front roller. Turn both tread-belt tension adjustment bolts in increments of 1/4 turn each and inspect for proper tension by walking on the belt at a low speed, making sure the belt does not slip. Keep tensioning the bolts until the belt stops slipping.

- **If you feel the belt is tight enough, but it still slips, the problem may be a loose Motor drive belt under the front cover.**

**DO NOT OVERTIGHTEN** – Over tightening will cause belt damage and premature bearing failure.

## TREADBELT TRACKING ADJUSTMENT:

The performance of your treadmill is dependent on the frame running on a reasonably level surface. If the frame is not level, the front and back roller cannot run parallel, and constant belt adjustment may be necessary.

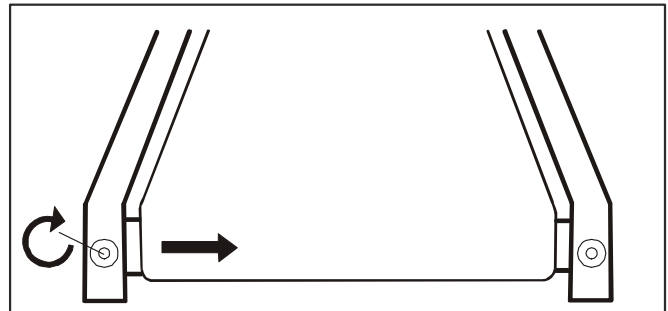
The treadmill is designed to keep the tread-belt reasonably centered while in use. It is normal for some belts to drift near one side while the belt is running with no one on it. After a few minutes of use, the tread-belt should have a tendency to center itself. If, during use, the belt continues to move toward one side, adjustments are necessary.

## TO SET TREADBELT TRACKING:

A 10 mm Allen wrench is provided to adjust the rear roller. Make tracking adjustments from the **left** side only. Set belt speed at approximately 3 to 5 kph.

Remember, a small adjustment can make a dramatic difference!

Turn the bolt clockwise to move the belt to the right. Turn the bolt only a 1/4 turn and wait a few minutes for the belt to adjust itself. Continue to make 1/4 rotation turns until the belt stabilizes in the center of the running deck.

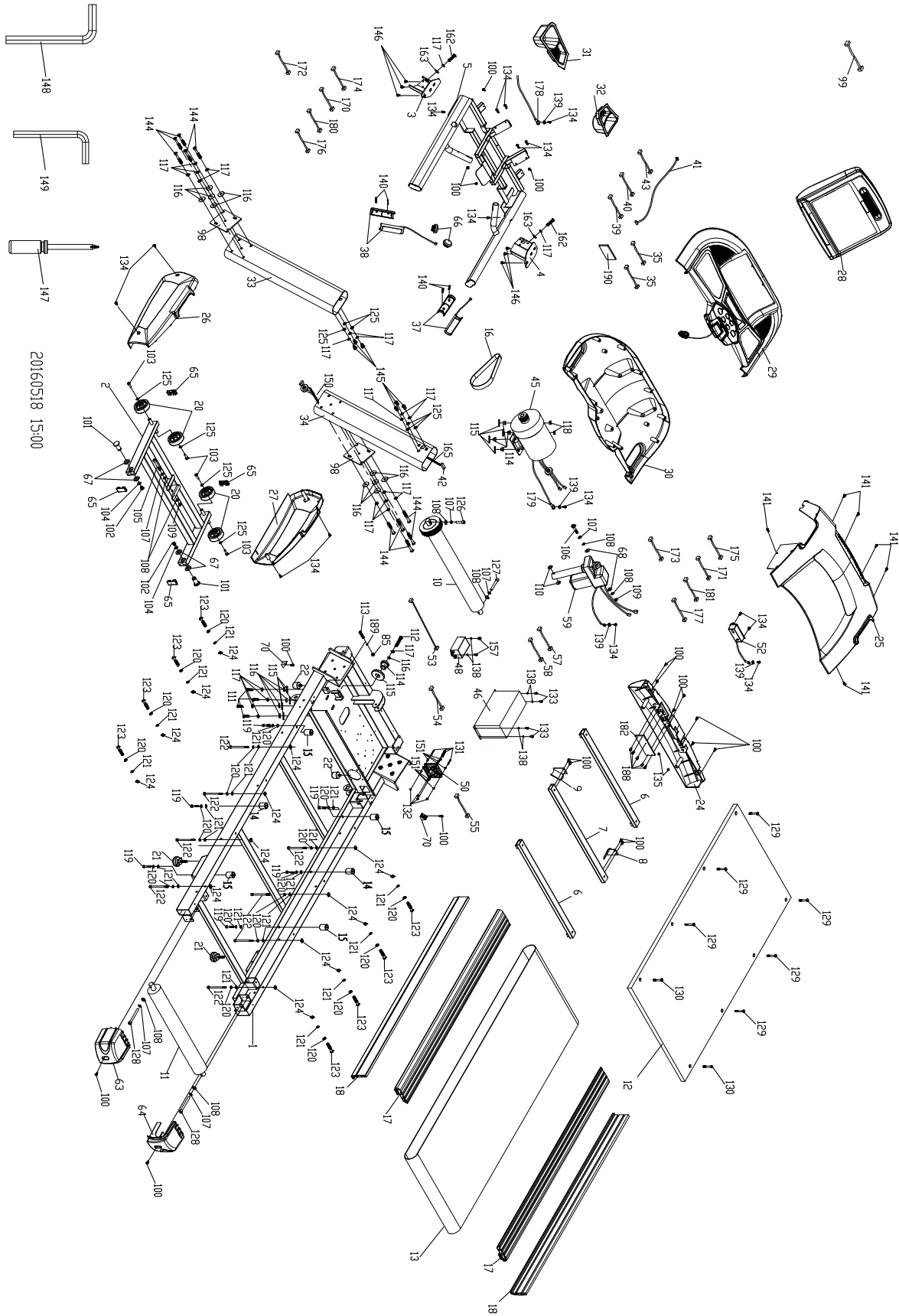


The belt may require periodic tracking adjustment depending on use and walking/running characteristics. Some users will affect tracking differently. Expect to make adjustments as required to center the tread-belt. Adjustments will become less of a maintenance concern as the belt is used. Proper belt tracking is an owner responsibility common with all treadmills.

## ATTENTION:

**DAMAGE TO THE RUNNING BELT RESULTING FROM IMPROPER TRACKING / TENSION ADJUSTMENTS IS NOT COVERED UNDER THE SPIRIT WARRANTY.**

# EXPLODED VIEW DIAGRAM



# PARTS LIST

Part Number	Part Description	Qty per unit
1	Main Frame	1
2	Incline Bracket	1
3	Console Mast Locking Assembly ( L )	1
4	Console Mast Locking Assembly ( R )	1
5	Console Support	1
6	Running Deck Stabilizer Assembly(A)	2
7	Running Deck Stabilizer Assembly(B)	1
8	Belt Guide(R)	1
9	Belt Guide(L)	1
10	Front Roller W/Pulley	1
11	Rear Roller	1
12	Running Deck	1
13	Running Belt	1
14	Cushion A(M8×Ø30×37L)	2
15	Cushion B(M8×Ø30×37L)	4
16	Drive Belt	1
17	Aluminum Foot Rail(122×39×1390L)	2
18	Aluminum Foot Rail(125×29×1390L)	2
20	Transportation Wheel	4
21	Foot Pad(Ø75(3/8"-16UNC)	2
22	Incline Rubber Foot	2
24	Front Motor Cover	1
25	Motor Top Cover	1
26	Motor Base Cap (L)	1
27	Motor Base Cap (R)	1
28	Console Assembly	1
29	Rack Top Cover	1
30	Rack Bottom Cover	1
31	Beverage Holder (L)	1
32	Beverage Holder (R)	1
33	Left Upright	1
34	Right Upright	1
35	500m/m_Ground Wire	2
37	900m/m_Handpulse Assembly(SMP-03)	1
38	900m/m_Handpulse Assembly(SMR-03)	1
39	400m/m_Handpulse Wire (Upper)(XHP-4)	1
40	400m/m_Handpulse Wire (Upper)(XHP-3)	1
41	900m/m_Computer Cable (Upper)	1
42	1700m/m_Computer Cable (Lower)	1
43	700m/m_Keyboard Wire	1
45	AC Motor(KSP341,220V)	1
46	3HP Inverter	1
48	Filter	1

Part Number	Part Description	Qty per unit
50	Fan	1
52	AC Electronic Module	1
53	450m/m_Connecting Wire (White)	1
54	450m/m_Connecting Wire (Black)	1
55	250m/m_Motor Fan Connecting Cable	1
57	200m/m_Connecting Wire,Power Cord	1
58	80m/m_Connecting Wire(White)	1
59	Incline Motor	1
63	Rear Adjustment Base (L )	1
64	Rear Adjustment Base (R )	1
65	Square End Cap	4
66	Handpulse End Cap	2
67	Stable Wheel Spacer	4
68	Ø10 × Ø25 × 0.8T_Nylon Washer	2
70	Motor Cover Anchor	2
85	Speaker End Cap	1
98	Upright Fixing Plate	2
99	Power Cord	1
100	5 × 20m/m_Tapping Screw	19
101	Ø18 × Ø19 × 41L_Carriage Bolt	2
102	M8 × 12m/m_Hex Head Bolt	2
103	3/8" × 25m/m_Hex Head Bolt	4
104	Ø8.5 × Ø26 × 2.0T_Flat Washer	2
105	M10 × 65L_Hex Head Bolt	1
106	M10 × P1.5 × 50L_Hex Head Bolt	1
107	Ø10 × 1.5T_Spring Washer	6
108	Ø3/8" × Ø19 × 1.5T_Flat Washer	8
109	M10 × P1.5 × 8T_Nyloc Nut	2
110	Ø10 × Ø24 × 2T_Nylon Washer	2
111	3/8" × 16 × 1-1/2" _Socket Head Cap Bolt	4
112	3/8" × 2-1/2" _Hex Head Bolt	1
113	3/8" × UCN16 × 2" _Socket Head Cap Bolt	1
114	Ø10 × Ø14 × 14L_Isolation Bushing	5
115	Ø13 × Ø35 × 5T_Nylon Washer	9
116	Ø3/8" × 35 × 2.0T_Flat Washer	15
117	Ø10 × 2.0T_Spring Washer	23
118	3/8" × 7T_Nyloc Nut	2
119	M8 × P1.25 × 40L_Socket Head Cap Bolt	6
120	Ø8 × 1.5T_Spring Washer	22
121	Ø5/16" × 16 × 1.0T_Flat Washer	22
122	M8 × 1.25 × 90L_Socket Head Cap Bolt	8
123	M8 × 55m/m_Hex Head Bolt	8
124	M8 × 1.25 × 6.5T_Nut	16
125	Ø3/8" × Ø25 × 2.0T_Flat Washer	10
126	M10 × 40m/m_Socket Head Cap Bolt	1
127	M10 × 80m/m_Socket Head Cap Bolt	1
128	M10 × 100m/m_Socket Head Cap Bolt	2

<b>Part Number</b>	<b>Part Description</b>	<b>Qty per unit</b>
129	M8 × P1.25 × 55L Flat Head Countersink Bolt	6
130	M8 × 35m/m Flat Head Countersink Bolt	2
131	M3 × 50m/m Phillips Head Screw	4
132	M3 × 5T Nyloc Nut	4
133	M5 × 20m/m Phillips Head Screw	4
134	M5 × 12m/m Phillips Head Screw	16
135	M5 × 5T Nyloc Nut	2
138	Ø5 × 1.5T Spring Washer	6
139	M5 Star Washer	4
140	3 × 25L Tapping Screw	4
141	5 × 12m/m Sheet Metal Screw	6
144	3/8" × 3" Button Head Socket Bolt	10
145	3/8" × 3/4" Button Head Socket Bolt	6
146	M8 × 12m/m Socket Head Cap Bolt	6
147	Phillips Head Screw Driver	1
148	L Allen Wrench	1
149	L Allen Wrench(6m/m)	1
150	Ending Tape(400m/m)	1
151	Isolation Pad	8
157	M5 × 12m/m Phillips Head Screw	2
162	3/8" × UNC16 × 1-3/4" Button Head Socket Bolt	2
163	Ø10 × Ø23 × 1.5T Curved Washer	2
165	Ending Tape(200m/m)	1
170	900m/m TV Signal Cable(Upper)	1
171	2400m/m TV Signal Cable(Lower)	1
172	900m/m Power Cord(Upper)	1
173	1700m/m Power Cord(Lower)	1
174	900m/m network W/Cable(Upper)	1
175	2400m/m network W/Cable(Lower)	1
176	900m/m CSAFE Connecting Wire(Upper)	1
177	2400m/m CSAFE Connecting Wire(Lower)	1
178	300m/m Ground Wire	1
179	300m/m Motor Ground Wire	1
180	900m/m HDMI Cable(Upper)	1
181	2400m/m HDMI Cable(Lower)	1
182	combo board-HDMI/TV/CSAFE/etwork	1
188	3 × 10m/m Sheet Metal Screw	5
189	Ø5 × Ø10 × 1.0T Flat Washer	1
190	HR monitor module	1