

Owner's Manual

Model No.
16011709000
CT900 ENT

- Assembly
- Operation
- Adjustments
- Parts
- Warranty

CAUTION:
Read and
understand this
manual before
operating unit

SPIRIT



Retain For Future Reference

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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.

SPIRIT

**CONGRATULATIONS ON YOUR
NEW TREADMILL AND WELCOME
TO THE SPIRIT FAMILY!**

Thank you for your purchase of this quality treadmill from Dyaco Canada Inc. Your new treadmill was manufactured by one of the leading fitness manufacturers in the world and is backed by one of the most comprehensive warranties available. Through your dealer, Dyaco Canada Inc. will do all we can to make your ownership experience as pleasant as possible for many years to come. The local dealership where you purchased this treadmill is your administrator for all warranty and service needs. Their responsibility is to provide you with the technical knowledge and service personnel to make your experience more informed and any difficulties easier to remedy.

Please take a moment at this time to record the name of the dealer, their telephone number, and the date of purchase below to make any future, needed contact easy. We appreciate your support and we will always remember that you are the reason that we are in business. Please complete and mail your registration card today and enjoy your new treadmill.

Name of Dealer _____
Telephone Number of Dealer _____
Purchase Date _____

Product Registration

RECORD YOUR SERIAL NUMBER

Please record the Serial Number of this fitness product in the space provided below.

Serial Number _____

REGISTER YOUR PURCHASE

The self-addressed product registration card must be completed in full and returned to Dyaco Canada Inc.

BEFORE YOU BEGIN

Thank you for choosing the SPIRIT CT900 ENT Treadmill. We take great pride in producing this quality product and hope it will provide many hours of quality exercise to make you feel better, look better, and enjoy life to its fullest. It's a proven fact that a regular exercise program can improve your physical and mental health. Too often, our busy lifestyles limit our time and opportunity to exercise. The SPIRIT CT900 ENT Treadmill provides a convenient and simple method to begin your assault on getting your body in shape and achieving a happier and healthier lifestyle. Before reading further, please review the drawing below and familiarize yourself with the parts that are labeled.

Read this manual carefully before using the SPIRIT CT900 ENT Treadmill. Although Dyaco Canada Inc. constructs its products with the finest materials and uses the highest standards of manufacturing and quality control, there can sometimes be missing parts or incorrectly sized parts. If you have any questions or problems with the parts included with your SPIRIT CT900 ENT Treadmill, please do not return the product. Contact us **FIRST!** If a part is missing or defective call us toll free at 1-888-707-1880. Our Customer Service Staff are available to assist you from 8:30 A.M. to 5:00 P.M. (Eastern Time) Monday through Friday. Be sure to have the name and model number of the product available when you contact us.

IMPORTANT SAFETY INSTRUCTIONS

WARNING - Read all instructions before using this equipment.

DANGER - To reduce the risk of electric shock, always unplug this 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, 20-amp grounded outlet.

WARNING - Heart rate monitoring systems may be inaccurate. Over exercising may result in serious injury or death. If you feel faint stop exercising immediately.

The treadmill should be the only equipment in the circuit in which it is connected. **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.
- Keep children under the age of 13 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 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 and 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 hand 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.
- 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 equipment 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 equipment by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the equipment.
- Connect this treadmill to a properly grounded outlet only. See Grounding Instructions.
- User weight should not exceed 450 lbs (204 kgs).

SAVE THESE INSTRUCTIONS - THINK SAFETY!

IMPORTANT ELECTRICAL INFORMATIONS

WARNING!

NEVER use a RCD - Residual Current Device (U.S. ver.= GFCI) - wall outlet with this treadmill. As with any equipment 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 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 equipment 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.

IMPORTANT OPERATION INSTRUCTIONS

- **NEVER** operate this treadmill without reading and completely understanding the results of any operational change you request from the computer console.
- 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 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.

SAFTY 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.

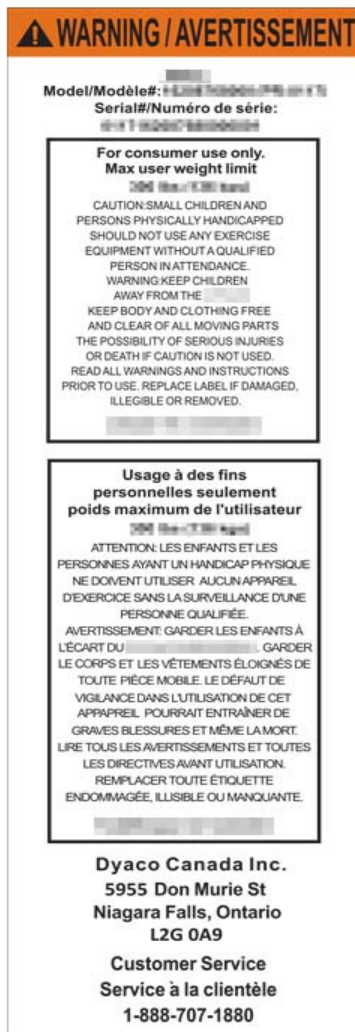
To Use:

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.

WARNING DECAL REPLACEMENT

The decal shown below has been placed on the treadmill. If the decal is missing or illegible, please call our Customer Service Department toll-free at 1-888-707-1880 to order a replacement decal.

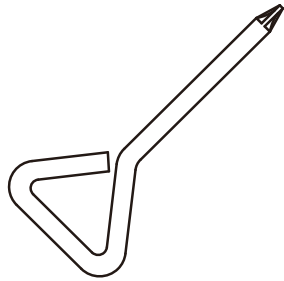


ASSEMBLY INSTRUCTIONS

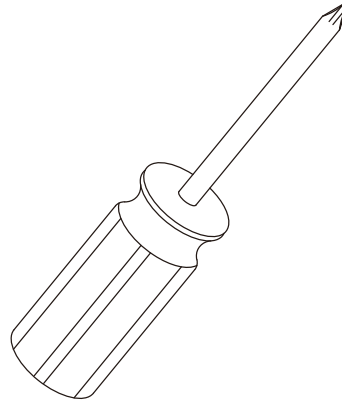
UNPACKING

1. Cut the straps and open box.
2. Locate the hardware package. The hardware is separated into four steps. Remove the tools first. Remove the hardware for each step as needed to avoid confusion. The numbers in the instructions that are in parenthesis (#) are the item number from the assembly drawing for reference.

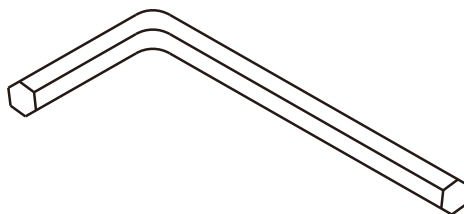
ASSEMBLY TOOLS



#112. Phillips Head Screwdriver (1 pc)

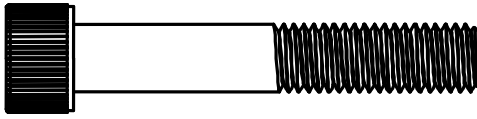


#111. Phillips Head Screwdriver (1 pc)

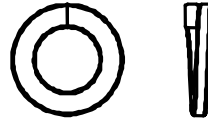


#110. M8 L Allen Wrench (1 pc)

STEP1

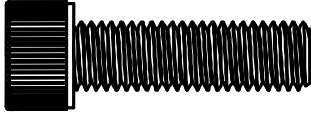


**#65 - M10 × 60mm
Socket Head Cap Bolt
(10pcs)**

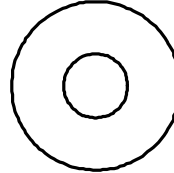


**#79 - Ø10 × 2T
Spring Washer
(10pcs)**

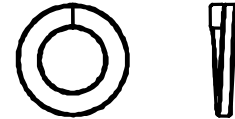
STEP2



**#63 - M10 × 35mm Socket
Head Cap Bolt
(6pcs)**



**#74 - Ø3/8" × 25 × 3T Flat
Washer
(6pcs)**



**#79 - Ø10 × 2T
Spring Washer
(6pcs)**

STEP3



**#68 - M5×12mm
Phillips Head Screw
(4pcs)**



**#134 - M5×20mm
Phillips Head Screw
(4pcs)**

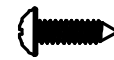
STEP4



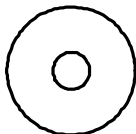
**#68 - M5 × 12mm
Phillips Head Screw
(4pcs)**



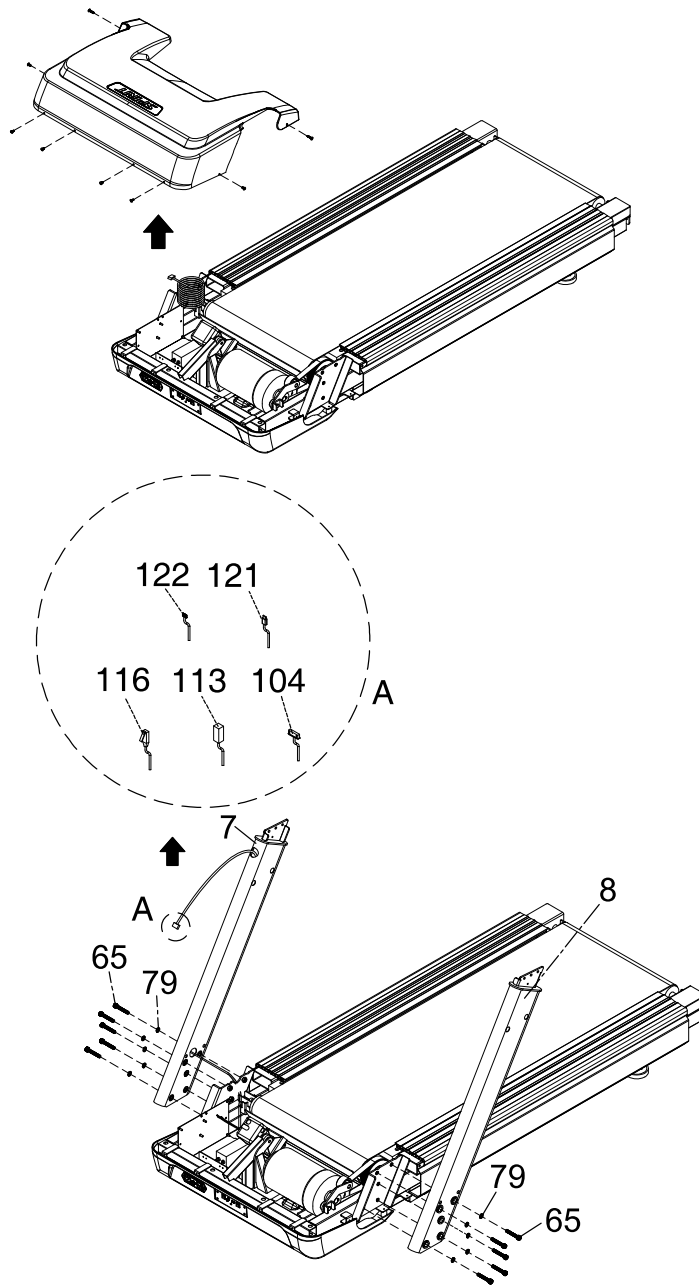
**#69 - M5 × 25m/m
Phillips Head Screw
(2pcs)**



**#83- 3.5 × 12m/m
Sheet Metal Screw
(18pcs)**

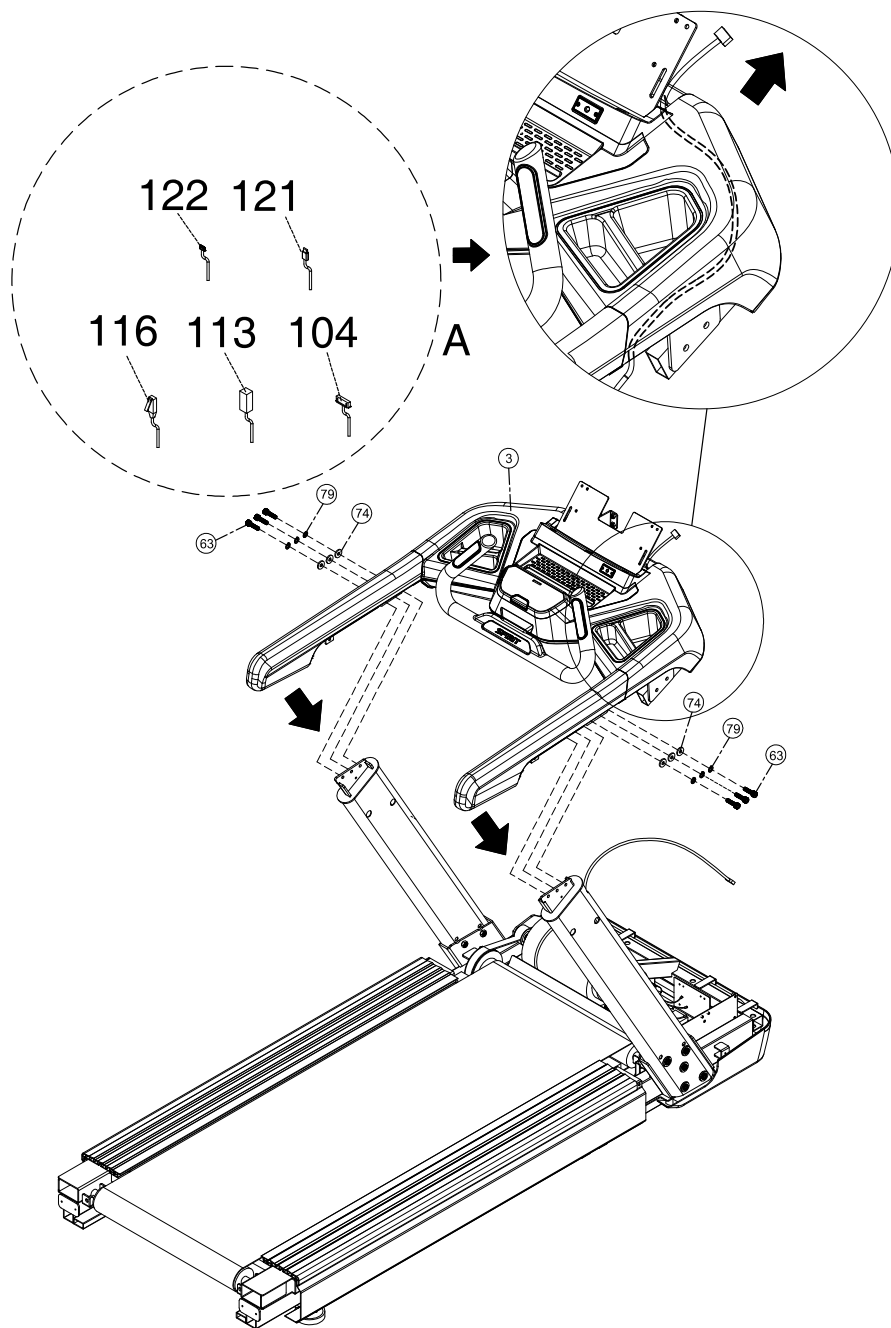


**#75 - Ø5.5 × Ø19 × 1.5T
Flat Washer
(8pcs)**



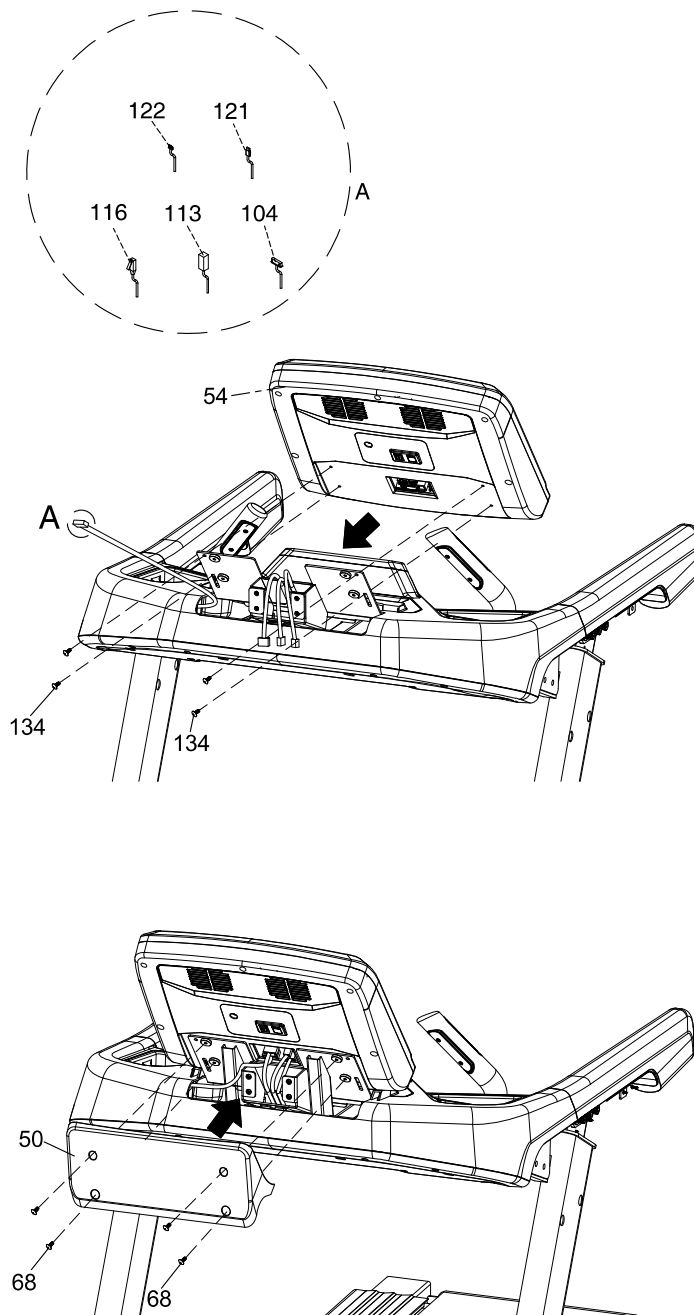
STEP 1

1. Loosen the 8 screws holding the MOTOR COVER (37) in place and remove the cover.
2. Uncoil the wires and run the wires through the RIGHT UPRIGHT (7).
3. Use 5 BOLTS (65) and 5 LOCK WASHERS (79) to attach the RIGHT UPRIGHT (7) to the MAIN FRAME (1). Do not pinch wires. Do not tighten before putting the console on.
4. Use 5 BOLTS (65) and 5 LOCK WASHERS (79) to attach the LEFT UPRIGHT (8) to the MAIN FRAME (1). Do not tighten before putting the console on.



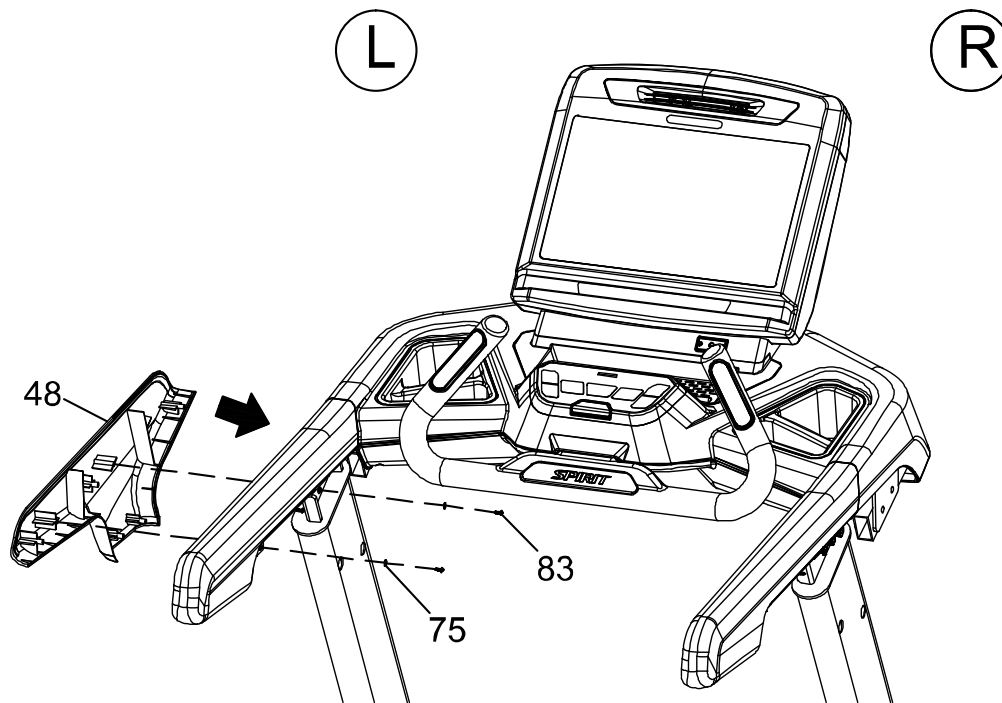
STEP 2

1. Install CONSOLE MOUNTING BRACKET (3) onto the uprights using 6 BOLTS (63), 6 LOCK WASHERS (79) and 6 FLAT WASHERS (74).
2. Attach the wires to a wire puller. Run the wires through the CONSOLE MOUNTING BRACKET (3) as shown in the illustration in circle.
3. Tighten all bolts and washers on both uprights (7 and 8) from previous step.



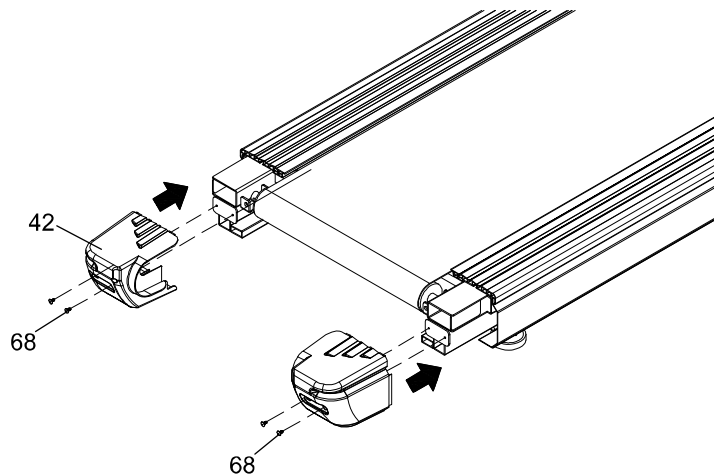
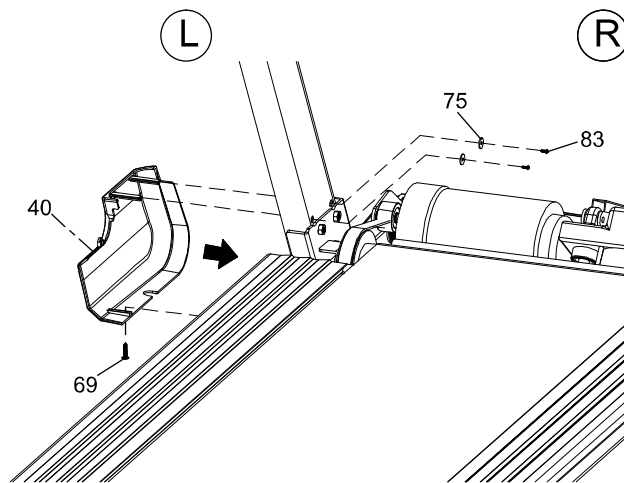
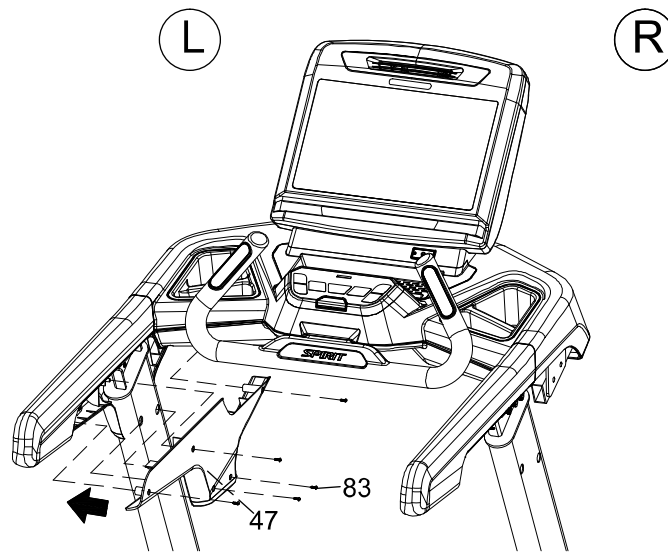
STEP 3

1. Wires should be away from the console mounting bracket.
2. Install the CONSOLE (54) using 4 SCREWS (134).
3. Connect wires to CONSOLE (54). Note: Ensure the green ground wires are attached.
4. Attach CONSOLE COVER (50) to MAIN PANEL using 4 SCREWS (68).



STEP 4

1. Attach LEFT OUTER HANDRAIL COVER (48) to the CONSOLE MOUNTING BRACKET using 2 SCREWS (83) and 2 FLAT WASHERS (75).



STEP 4

2. Attach LEFT INNER HANDRAIL COVER (47) to the CONSOLE MOUNTING BRACKET using 5 SCREWS (83).
3. Attach LEFT FRAME BASE COVER (40) to MAIN FRAME (1) using 2 SCREWS (83), 2 FLAT WASHERS (75), and 1 long SCREW (69).
4. Attach LEFT REAR END CAP (42) to MAIN FRAME (1) using 2 SCREWS (68).
5. Repeat to install right side covers (45, 46, 39, and 41).
6. Reinstall the MOTOR COVER (37) using the bolts removed in Step 1.

OPERATION OF YOUR TREADMILL

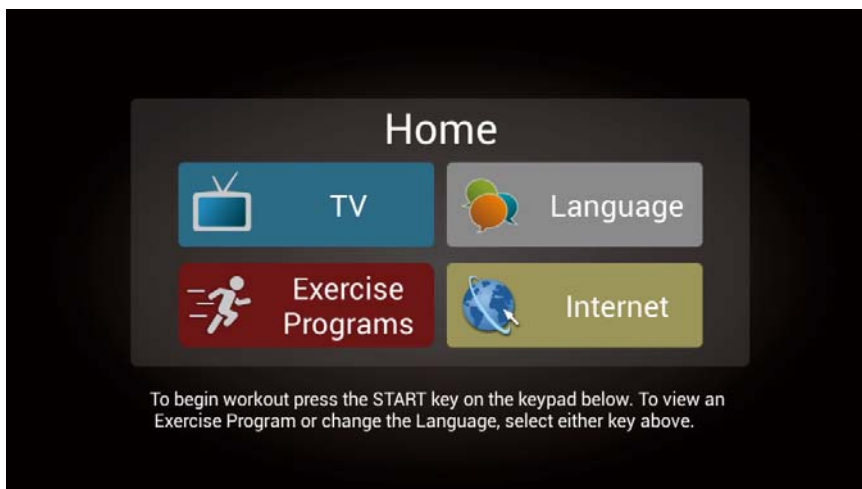
Getting familiar with the control panel Console



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.

Main Home page: Begin operation by touching the icons.



Quick operating buttons are convenient for basic treadmill functions.



Quick start operation:

- Press Start button and the belt runs with 0.8 km/h (0.5 MPH).
- Press Speed Up/Down buttons further to adjust the speed.
- Press the Home button, the return arrow at the top of the screen 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 buttons on the console to control. On the bottom, there are **Speed Up/Down** buttons to control the speed, **Start** button to begin the workout, **Stop** button to pause/stop running.

Pause/Stop:

- Press **Stop** button once or first page button on the screen, the belt will slow down gradually till fully stopped 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, the console will ask you if you want to end the workout. If “STOP” button is pressed the third time, the console will display your workout summary.

Incline:

- The incline is changeable any time during the workout.
- Press **Incline Up/Down** button or **Incline +/-** button on the screen to change the incline to the desired level.

Heart Rate Feature

The Pulse (Heart Rate) on the screen shows the current value of the heart beats per minute. You must use both left and right stainless steel sensors to pick up your pulse. Pulse values are displayed anytime the computer is receiving a Grip Pulse signal. You may use the Grip Pulse feature while in Heart Rate Control. This unit is also compatible with wireless chest strap.

To turn off the treadmill:

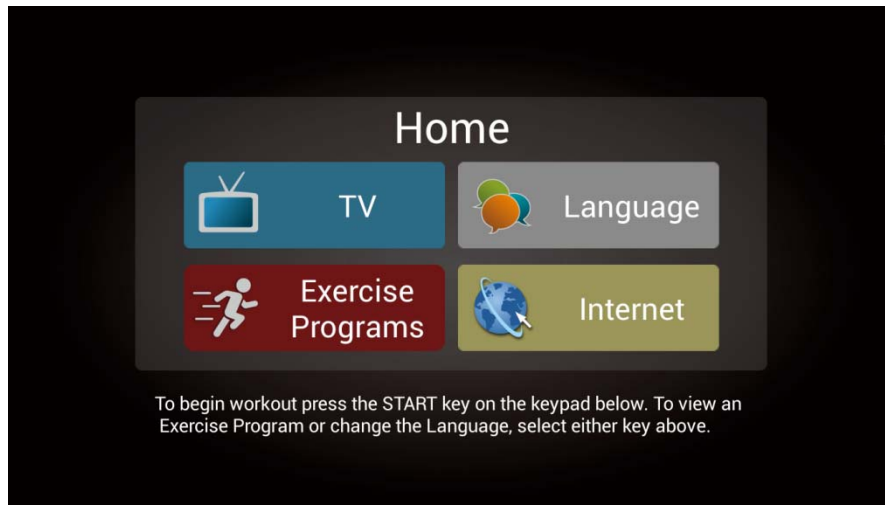
The screen will automatically turn off (go to sleep) after 30 minutes of inactivity. This function is called sleep mode. In sleep mode, the treadmill will power down most everything except for a minimum of circuitry for detecting key presses and the safety key so it will start up again if these are activated. There is only a tiny amount of current used in sleep mode (about the same as your TV when it is turned off) and it is perfectly fine to leave the main power switch on in sleep mode. Of course you may also remove the safety key or turn off the main power switch to power down the treadmill.

Audio:

To listen to any audio source with this unit, you must plug a headset into the port on the console.

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.



Language

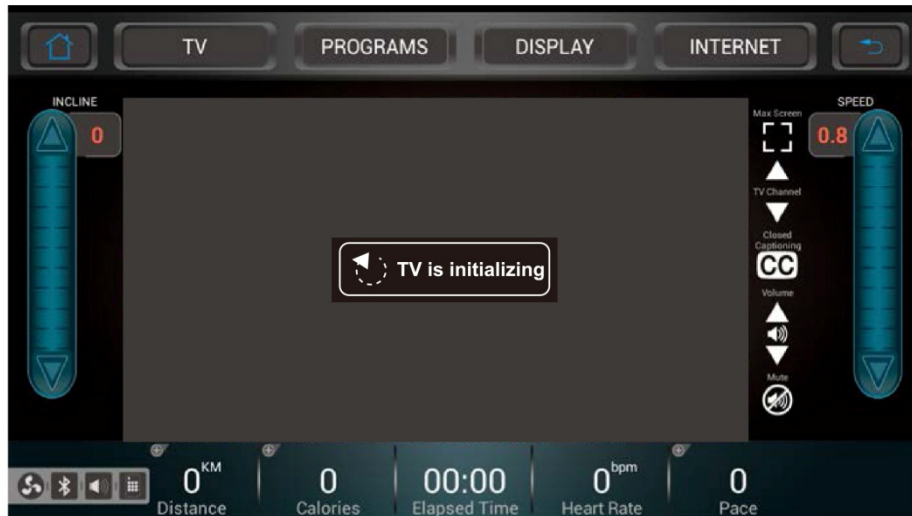
When you press Language button on the first page HOME, it enters the menu with all language selections.



There are 12 languages to choose from. Touch the desired language button and the system will return to the first page for the program operation. If you don't want to change the language, press HOME button at the upper left corner to return to the first page or touch the return button at right upper right corner to return to the previous page to continue the operation.

TV

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.



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 Speed Up/Down buttons to control the speed and Incline Up/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 (the console will display a message to ask you if you want to end the workout). Pressing the "STOP" button third time and the console will display a workout summary.

Internet

When the Internet button on the Home page is pressed, it directly enters Internet interface.



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

Use **Speed Up/Down** buttons to control the speed and **Incline Up/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 (the console will display a message to ask you if you want to end the workout). Pressing the **Stop** button third time and the console will display a workout summary.

Exercise Programs

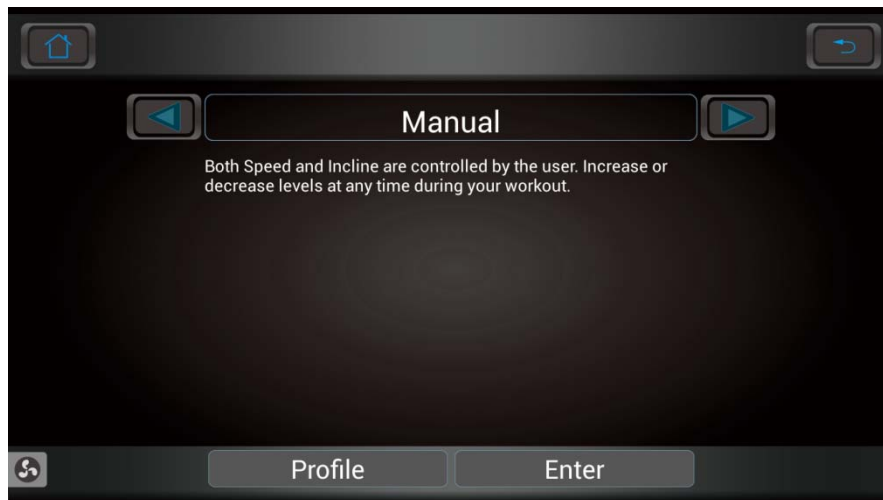
When the **Exercise Program** button on the **Home** page is pressed, it directly enters Menu interface.



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.

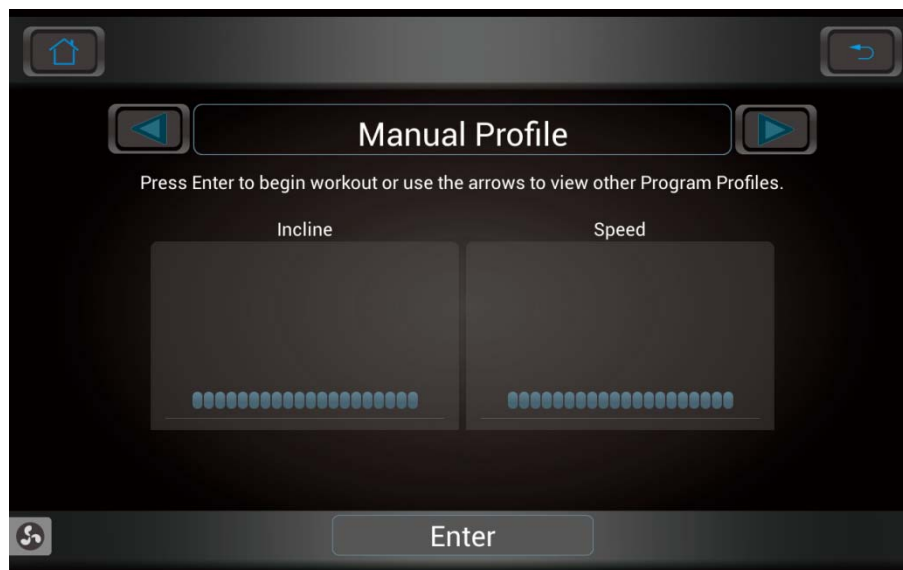
MANUAL

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.

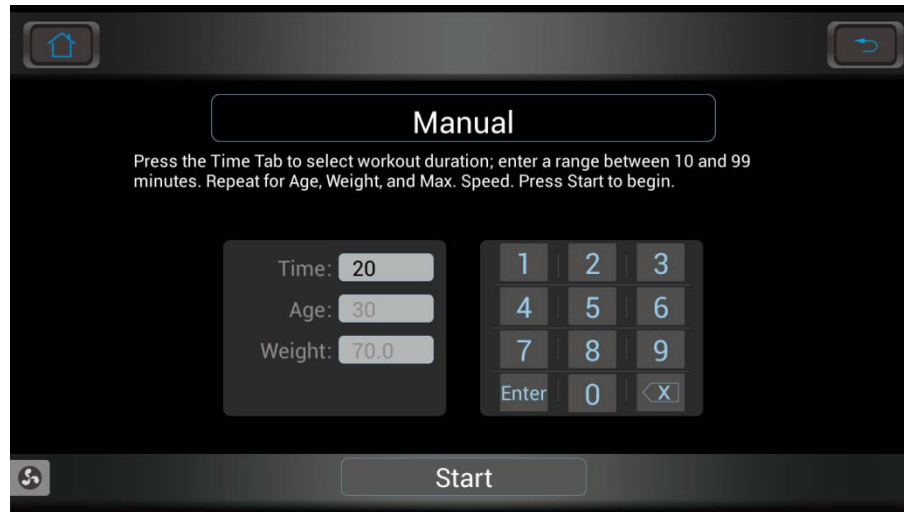


If it is the program you want, touch **Enter** button at the bottom to enter next image. If not, touch the **Home** icon at left top to return to the first page or the return icon at right top to return to the previous page to continue the last operation. If other profile is wanted, touch left or right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

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.

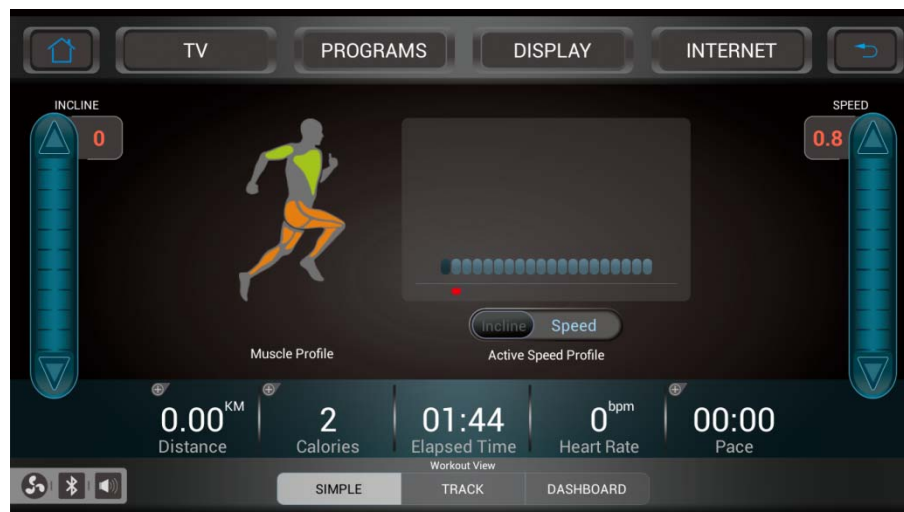


This image is for setting program time, user’s age and weight. Press “ENTER” button after entering parameters to confirm. Then press “START” button to start the Manual Program. If not, just press HOME icon at left top to return to the first page, or return icon at right top to return to the previous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

DISPLAY OPTIONS

Simple

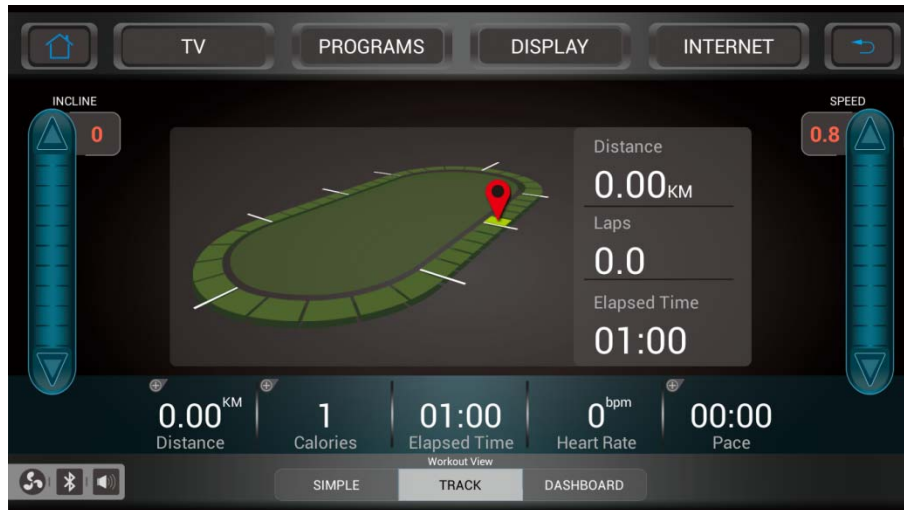
After starting the program, a “simple” workout view displays as below. It contains all values on the bottom concerning your workout.



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 “INCLINE” 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 end the current workout. If **Display** button is touched, you can access the different workout views.

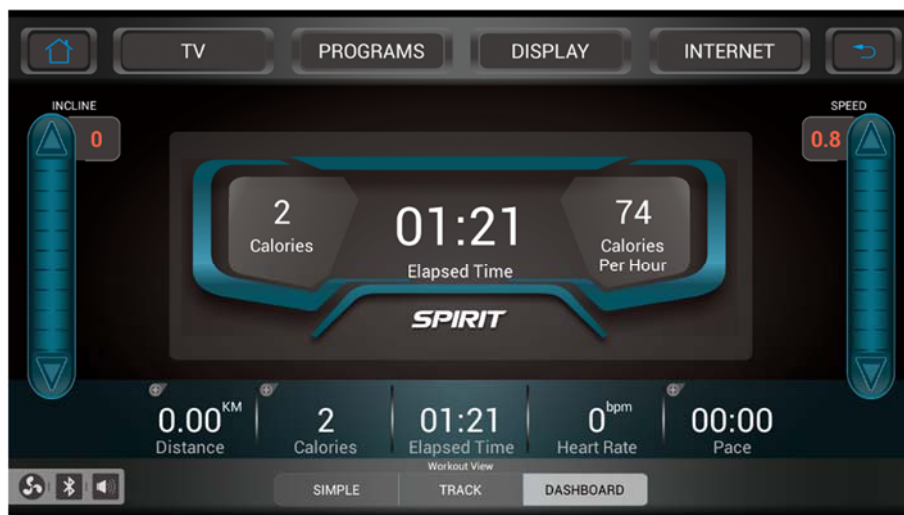
Track

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



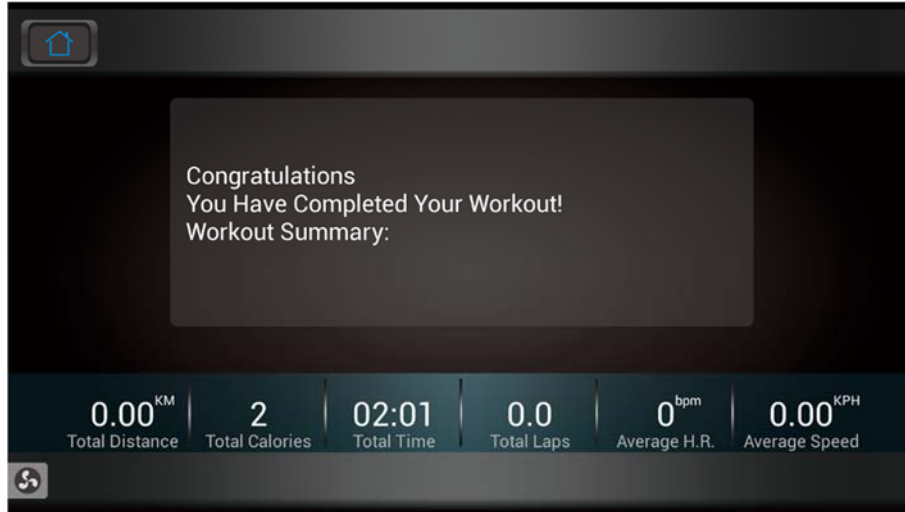
Dashboard

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



STOP BUTTON

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 console 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.



To choose and start preset program:

1. 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.
2. After selecting a program and pressing enter to set your personal data, the **Time** window will be darkened with the default value of 20 minutes. You may use the numeric keypads to adjust the time. After adjusting the time, press **Enter**. (Note: Except for the Calorie Program, you may press **Start** at any time during the programming to begin with only settings you have modified at that point).
3. 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)
4. 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 154 lbs. Range=22 to 333.7)
5. The touch Max Speed window will now be darkened a value indicating your Speed. Entering your correct Speed affects the Max Speed readout accuracy. Use numeric keypads to make adjustments, and then press ENTER confirm. (Default speed is 5.0 KM/H)
6. Now press the **Start** key to begin your workout, or the **Stop** button to return to the previous screen.
7. There will be a three 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 three minutes. (5K Run, 10K Run, HR, HR 2, Custom, Calorie, Military Fitness Test and Manual do not have warm-up)

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
Fat burn	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:

1. 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.
2. The touch Calories window will now be darkened a value indicating your consume calories. Use numeric keypads to make adjustments, and then press ENTER to confirm, display takes time and modify.
3. 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 show 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 lap 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
1	0 to 1:00	4.5mph	0%	31.15
2.1	1:15	4.5mph	2%	32.55
2.2	1:30	4.5mph	2%	33.6
2.3	1:45	4.5mph	2%	34.65
2.4	2:00	4.5mph	2%	35.35
3.1	2:15	5.0mph	2%	37.45
3.2	2:30	5.0mph	2%	39.55
3.3	2:45	5.0mph	2%	41.3
3.4	3:00	5.0mph	2%	43.4
4.1	3:15	5.0mph	4%	44.1
4.2	3:30	5.0mph	4%	45.15
4.3	3:45	5.0mph	4%	46.2
4.4	4:00	5.0mph	4%	46.5
5.1	4:15	5.5mph	4%	48.6
5.2	4:30	5.5mph	4%	50
5.3	4:45	5.5mph	4%	51.4
5.4	5:00	5.5mph	4%	52.8
6.1	5:15	5.5mph	6%	53.9
6.2	5:30	5.5mph	6%	54.9
6.3	5:45	5.5mph	6%	56
6.4	6:00	5.5mph	6%	57
7.1	6:15	6.0mph	6%	57.7
7.2	6:30	6.0mph	6%	58.8
7.3	6:45	6.0mph	6%	60.2
7.4	7:00	6.0mph	6%	61.2
8.1	7:15	6.0mph	8%	62.3
8.2	7:30	6.0mph	8%	63.3
8.3	7:45	6.0mph	8%	64
8.4	8:00	6.0mph	8%	65
9.1	8:15	6.5mph	8%	66.5
9.2	8:30	6.5mph	8%	68.2
9.3	8:45	6.5mph	8%	69
9.4	9:00	6.5mph	8%	70.7
10.1	9:15	6.5mph	10%	72.1
10.2	9:30	6.5mph	10%	73.1
10.3	9:45	6.5mph	10%	73.8
10.4	10:00	6.5mph	10%	74.9
11.1	10:15	7.0mph	10%	76.3
11.2	10:30	7.0mph	10%	77.7
11.3	10:45	7.0mph	10%	79.1
11.4	11:00	7.0mph	10%	80

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
0:00 to 1:00	3.0mph	0%
1:01 to 2:00	3.0mph	0%
2:01 to 3:00	3.0mph	0%
3:01 to 4:00	4.5mph	0%
4:01 to 5:00	4.5mph	2%
5:01 to 6:00	5.0mph	2%
6:01 to 7:00	5.0mph	4%
7:01 to 8:00	5.5mph	4%
8:01 to 9:00	5.5mph	6%
9:01 to 10:00	6.0mph	6%
10:01 to 11:00	6.0mph	8%
11:01 to 12:00	6.0mph	8%
12:01 to 13:00	6.5mph	10%
13:01 to 14:00	7.0mph	10%
14:01 to 15:00	7.0mph	12%
15:01 to 16:00	7.5mph	12%
16:01 to 17:00	7.5mph	14%
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	12:31	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

AGE	MALE	FEMALE
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:

1. Press the **Fit-Test** button (8 Different tests available)
2. The **Message Window** will ask you to enter your **Gender**. You may adjust the age and weight setting by using the numeric keypad.
3. 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 3 MPH before the actual test begins.
- 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

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.

TARGET HEART RATE

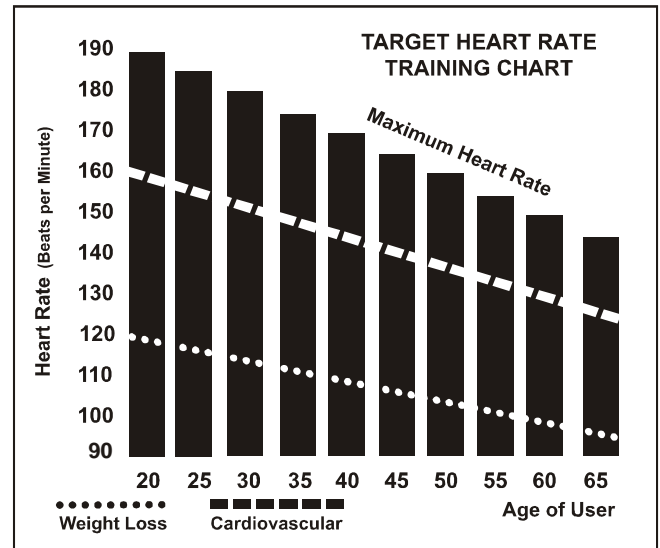
The old motto, “no pain, no gain”, is a myth that has been overpowered by the benefits of exercising comfortably. A great deal of this success has been promoted by the use of heart rate monitors. With the proper use of a heart rate monitor, many people find that their choice of exercise intensity is 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. This can be accomplished by using the following formula: 220 minus your age. This will give you the Maximum heart rate (MHR) for someone of your age. To determine the effective heart rate range for specific goals you simply calculate a percentage your MHR. Your Heart rate training zone is 50% to 90% of your maximum heart rate. 60% of your MHR is the zone that burns fat while 80% is for strengthening the cardio vascular system. This 60% to 80% is the zone to stay in for maximum benefit.

For someone who is 40 years old their target heart rate zone is calculated:

$$\begin{aligned} 220 - 40 &= 180 \text{ (maximum heart rate)} \\ 180 \times .6 &= 108 \text{ beats per minute (60\% of maximum)} \\ 180 \times .8 &= 144 \text{ beats per minute (80\% of maximum)} \end{aligned}$$

So for a 40 year old the training zone would be 108 to 144 beats per minute.



If you enter your age during programming the console will perform this calculation automatically. Entering your age is used for the Heart Rate control programs. After calculating your Maximum Heart Rate you can decide upon which goal you would like to pursue.

The two most popular reasons for, or 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 training heart rate, for either cardiovascular fitness or weight loss, is represented by two different lines that 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.

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.

RATE OF PERCEIVED EXERTION

Heart rate is important but listening to your body also has a lot of advantages. There are more variables involved in how hard you should workout than just heart rate. Your stress level, physical health, emotional health, temperature, humidity, the time of day, the last time you ate and what you ate, all contribute to the intensity at which you should workout. If you listen to your body, it will tell you all of these things.

The rate of perceived exertion (RPE), also known as the Borg scale, was developed by Swedish physiologist G.A.V. Borg. This scale rates exercise intensity from 6 to 20 depending upon how you feel or the perception of your effort.

The scale is as follows:

Rating Perception of Effort

- 6 Minimal
- 7 Very, very light
- 8 Very, very light +
- 9 Very light
- 10 Very light +
- 11 Fairly light
- 12 Comfortable
- 13 Somewhat hard
- 14 Somewhat hard +
- 15 Hard
- 16 Hard +
- 17 Very hard
- 18 Very hard +
- 19 Very, very hard
- 20 Maximal

You can get an approximate heart rate level for each rating by simply adding a zero to each rating. For example a rating of 12 will result in an approximate heart rate of 120 beats per minute. Your RPE will vary depending up the factors discussed earlier. That is the major benefit of this type of training. If your body is strong and rested, you will feel strong and your pace will feel easier. When your body is in this condition, you are able to train harder and the RPE will support this. If you are feeling tired and sluggish, it is because your body needs a break. In this condition, your pace will feel harder. Again, this will show up in your RPE and you will train at the proper level for that day.

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 ribbed oval areas on the reverse side of the belt and both sides of the 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.



Note: The transmitter is automatically activated when it detects activity from the user's heart. Additionally, it automatically deactivates when it does not receive any activity. Although the transmitter is water resistant, moisture can have the effect of creating false signals, so you should take precautions to completely dry the transmitter after use to prolong battery life (estimated transmitter battery life is 2500 hours). The replacement battery is Panasonic CR2032.

Erratic Operation

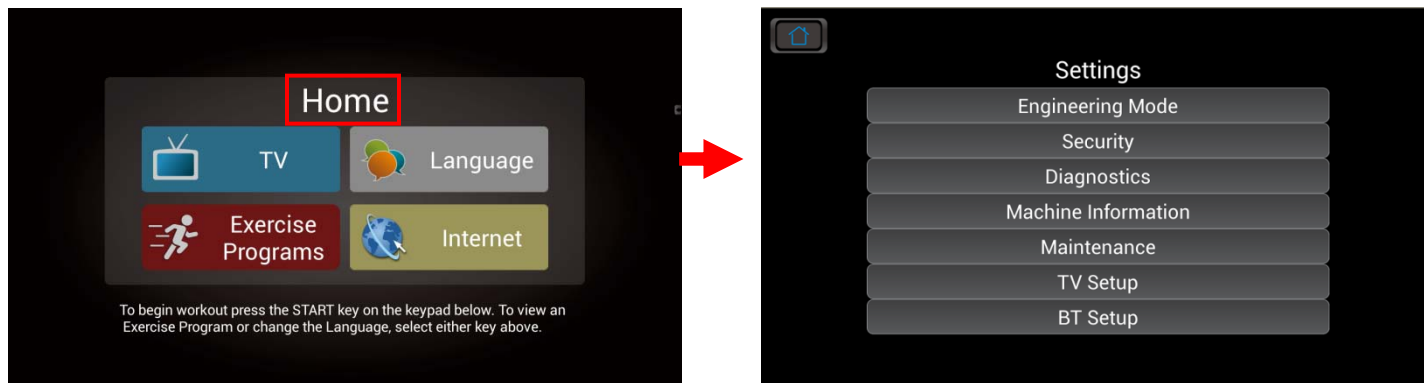
Caution! Do not use this Treadmill for Heart Rate programs unless a steady, solid Actual Heart Rate value is being displayed. High, wild, random numbers being displayed indicate a problem. Areas to look for interference which may cause erratic heart rate:

1. Microwave ovens, TV's, small appliances, etc.
2. Fluorescent lights.
3. Some household security systems.
4. Perimeter fence for a pet.
5. Some people have problems with the transmitter picking up a signal from their skin. If you have problems, try wearing the transmitter upside down.
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. Another Individual wearing a transmitter within 3' of your machine's console.

If you continue to experience problems contact Dyaco Canada Inc.

SYSTEM MAINTENANCE SUITE

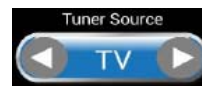
Press the “Home” icon 10 consecutive repetitions to enter the Maintenance suite.



The two most commonly used menus for setting up the exercise machine are described below: the TV Setup and Maintenance menus.

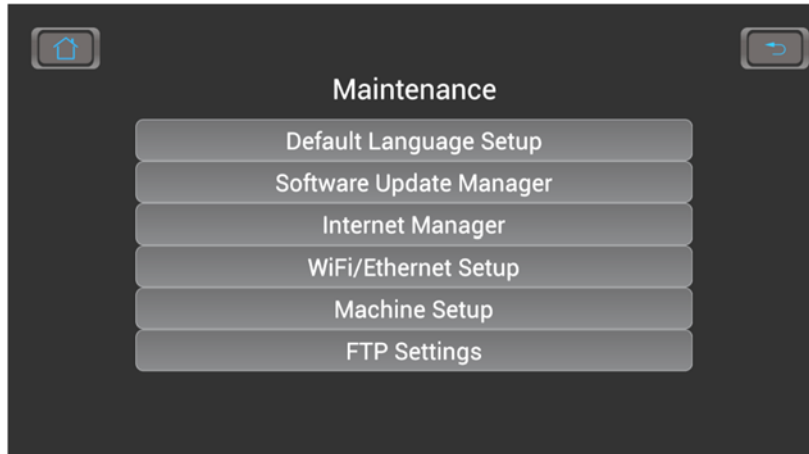
For information on other sections of the Maintenance suite refer to the technical service manual or call Spirit service.

TV Setup



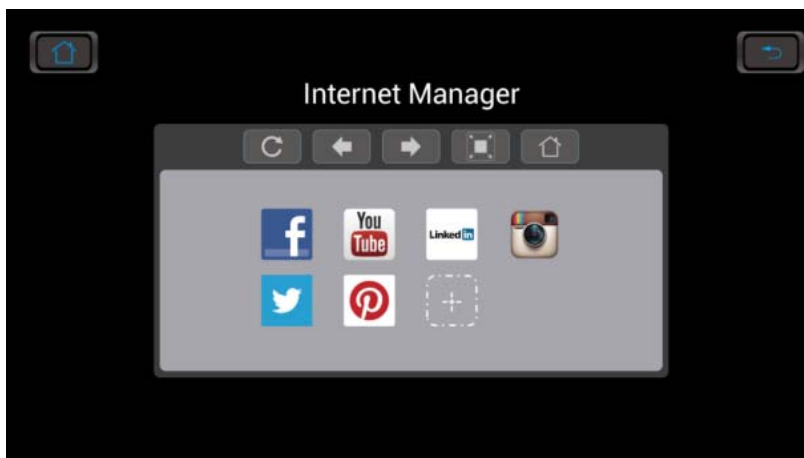
1. Begin by selecting either TV or HDMI as the tuner source.
2. If TV is chosen press 'OSD Menu'. The first highlighted item on the menu is 'Air/Cable' and then 'Cable' or 'Air' afterward (Air = TV signals broadcasted over the air instead of a cable). Press the 'OSD Enter' to change the selection between Cable and Air Signal source, usually Cable).
3. After selecting Cable or Air use the arrows located below the 'OSD Exit' key to navigate down to 'Auto Scan' then press 'OSD Enter'. The tuner will now scan for all available channels. Press 'OSD Exit' when done. You can modify the channels by pressing the 'Update Channel List'.
4. The 'OSD Command button is for engineering use only.

Maintenance Menu



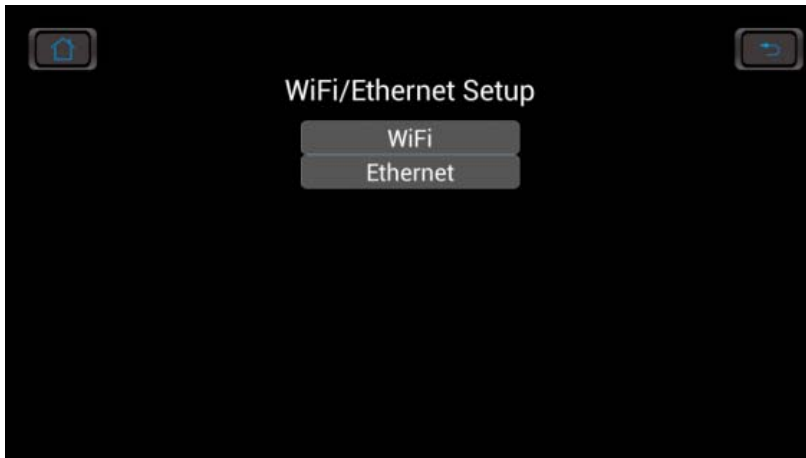
- The **Default language setup** allows you to select the main language that will be shown when the console is turned on. You are able to select the language in the Home menu, but once the user finishes using the machine the console will return to this default language.
- **Software update manager** is used to install new versions of the application software.
- **Internet manager** Allows you to modify the internet sites that are shown in the Internet menu.
- **Wifi / Ethernet setup** is for selecting a Wifi signal or Ethernet addresses.
- **Machine Setup** allows you to select whether the Csafe port is used for Csafe or CAB TV Tuner. This menu also allows you to set the screen brightness.
- **FTP Settings** is the Spirit FTP site address where Error logs and remote troubleshooting can be managed.

Internet Manager



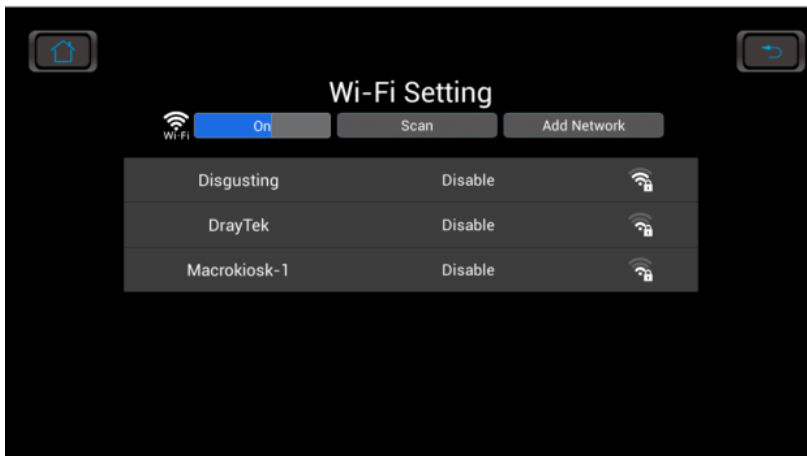
- Remove a link by pressing the icon of the site you want to remove for 2 seconds. A pop-up window will ask you to confirm the removal.
- To add a website press the dotted outline box. A pop-up window will ask you to enter the web address and upload a picture for the final button if you wish. You could also just use a default-look button and type in the name of the site, which will then be the button icon.

Wifi /Ethernet Setup



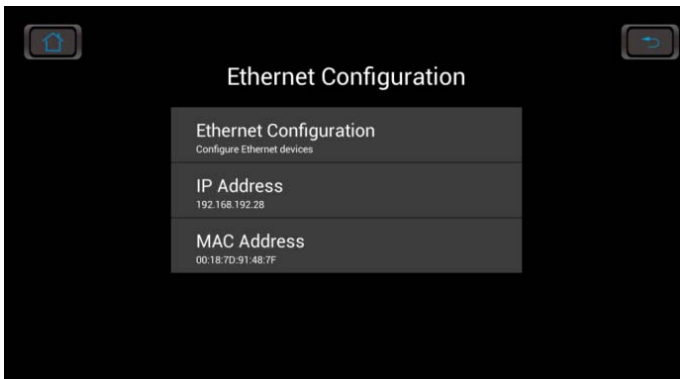
- Press the desired button for setting up Wifi or Ethernet.

Wifi Setup

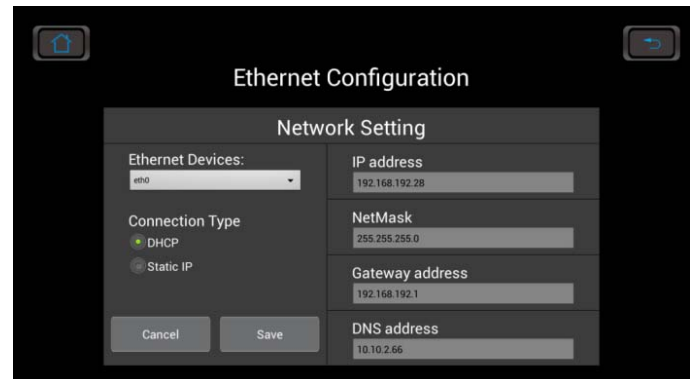


- Turn Wifi on and press scan for available Wifi connections. Press desired connection and follow the on-screen directions.

Ethernet Setup



- Press Ethernet Configuration to set up connection.



- Select DHCP to search for connection or a new

PARTS LIST

KEY NO.	PART NO.	DESCRIPTION	Q'TY
1	7090001E	Main Frame	1
2	7090002E	Incline Bracket	1
3	7090003E	Console Mounting Bracket	1
4	7090004E	Hand pulse Assembly	1
5	7090005E	Handrail (R)	1
6	7090006E	Handrail (L)	1
7	7090007E	Right Upright	1
8	7090008E	Left Upright	1
9	7090009E	Idler Wheel Assembly	1
10	7090010E	AC Motor	1
11	7090011E	Front Roller W/Pulley	1
12	7090012E	Rear Roller	1
13	7090013E	Incline Motor	1
14	7090014E	Running Deck	1
15	7090015E	Running Belt	1
16	7090016E	Axle for Idler Wheel	1
17	7090017E	Motor Inverter	1
18	7090018E	AC Power Filter	1
19	7090019E	Leveling Foot Pad	2
20	7090020E	Drive Belt	1
21	7090021E	Interface Board Bracket	1
22	7090022E	Inverter Board	1
23	7090023E	Copper Bushing	2
24	7090024E	Transportation Wheel	4
26	7090026E	6902_Bearing	2
27	7090027E	Idler Spring	1
29	7090029E	Aluminum Side Rail	2
30	7090030E	Step Rail	2
31	7090031E	Inverter Support Bracket	1
32	7090032E	Motor Insulator	2
33	7090033E	Motor Insulating bushing	4
34	7090034E	Interface Dummy Bracket	1
35	7090035E	Deck Cushion	8
36	7090036E	Speed Nut Clip	8
37	7090037E	Motor Top Cover	1
38	7090038E	Motor Bottom Cover	1
39	7090039E	Frame Base Cover (R)	1
40	7090040E	Frame Base Cover (L)	1
41	7090041E	Rear End Cap (R)	1
42	7090042E	Rear End Cap (L)	1
43-01	7090043-01E	Beverage Holder Cover	1
43-02	7090043-02E	Beverage Holder Inner Cover	1
43-05	7090043-05E	3.5 × 12m/m_Sheet Metal Screw	4
44	7090044E	Beverage Holder Cover(Bottom)	1
45	7090045E	Handrail Cover Inner (R)	1

KEY NO.	PART NO.	DESCRIPTION	Q'TY
46	7090046E	Handrail Cover Outer (R)	1
47	7090047E	Handrail Cover Inner (L)	1
48	7090048E	Handrail Cover Outer (L)	1
49	7090049E	TFT Console Cover (Front)	1
50	7090050E	TFT Console Cover (Rear)	1
51	7090051E	M3 × 5m/m_Phillips Head Screw	7
52	7090052E	Safety Key	1
53	7090053E	Step Rail Rear Support Plate	2
54	7090054E	Console Assembly	1
55	7090055E	30m/m_Hand pulse Assembly	2
56	7090056E	450m/m_Connecting Wire (Black)	1
57	7090057E	AC Power Input Module	1
58	7090058E	Motor Cover Plate	1
59	7090059E	M10 × 50m/m_Hex Head Bolt	4
60	7090060E	3/8" × 1" _Hex Head Bolt	4
61	7090061E	M10 × 65m/m_Hex Head Bolt	1
62	7090062E	M10 × P1.5 × 25m/m_Socket Head Cap Bolt	4
63	7090063E	M10 × P1.5 × 35m/m_Socket Head Cap Bolt	6
64	7090064E	M10 × P1.5 × 45m/m_Socket Head Cap Bolt	1
65	7090065E	M10 × P1.5 × 60m/m_Socket Head Cap Bolt	10
66	7090066E	M10 × P1.5 × 75m/m_Socket Head Cap Bolt	2
67	7090067E	M8 × P1.25 × 20m/m_Flat Head Bolt	8
68	7090068E	M5 × P0.8 × 12m/m_Phillips Head Screw	51
69	7090069E	M5 × P0.8 × 25m/m_Phillips Head Screw	4
70	7090070E	M4 × P0.7 × 12m/m_Phillips Head Screw	2
71	7090071E	M10 × P1.25 × 8T_Nyloc Nut	6
72	7090072E	M8 × P1.25 × 6.5T_Nyloc Nut	8
74	7090074E	Ø3/8" × Ø25 × 3T_Flat Washer	18
75	7090075E	Ø5.5 × Ø19 × 1.5T_Flat Washer	8
76	7090076E	Ø3/8" × Ø30 × 3T_Flat Washer	8
77	7090077E	Ø16.5 × Ø30 × 3T_Flat Washer	4
78	7090078E	Ø28 × 1.2T_C Ring	1
79	7090079E	Ø10 × 2T_Spring Washer	25
80	7090080E	Ø8 × 1.5T_Spring Washer	8
82	7090082E	Ø5 × 15m/m_Sheet Metal Screw	6
83	7090083E	Ø3.5 × 12m/m_Sheet Metal Screw	39
84	7090084E	Ø3 × 20m/m_Tapping Screw	4
85	7090085E	M8 × P1.25 × 40L_Idle Wheel Screw	1
86	7090086E	M6 × P1.0 × 40L_Flat Head Bolt	8
87	7090087E	Ø15_C Ring	1
88	7090088E	M16 × P2.0 × 55m/m_Socket Head Cap Bolt	2
89	7090089E	M16 × 16T_Nyloc Nut	2
90	7090090E	M8 × P1.25 × 140m/m_Socket Head Cap Bolt	8
91	7090091E	Ø28_Wire Clamp	1
92	7090092E	M5 × 5T_Nyloc Nut	2
93	7090093E	M5 × 12m/m_Phillips Head Screw	2

KEY NO.	PART NO.	DESCRIPTION	Q'TY
94	7090094E	Ø10 × Ø25 × 2.5T_Nylon Washer	2
95	7090095E	M8 × 7T_Nyloc Nut	1
96	7090096E	Rod End Sleeve	1
97	7090097E	450m/m_Connecting Wire (White)	1
98	7090098E	300m/m_Ground Wire	1
99	7090099E	800m/m_Handpulse Wire(SMP3)	1
100	70900100E	800m/m_Handpulse Wire(SMR4)	1
101	70900101E	500m/m_Connecting Wire	1
102	70900102E	350m/m_Connecting Wire(XHP-7)	1
103	70900103E	350m/m_Connecting Wire(XHP-8)	1
104	70900104E	2300m/m_Computer Cable	1
105	70900105E	HR monitor module	1
106	70900106E	300m/m_Salutron Connecting Wire	1
107	70900107E	200m/m_Keyboard Wire	1
109	70900109E	300m/m_Connecting Wire	1
110	70900110E	L Allen Wrench	1
111	70900111E	Phillips Head Screw Driver	1
112	70900112E	Short Phillips Head Screw Driver	1
113	70900113E	900m/m_Power Cord(Upper)	1
114	70900114E	1700m/m_Power Cord(Lower)	1
116	70900116E	2400m/m_Network Connecting Cable(Lower)	1
118	70900118E	2400m/m_CSAFE Connecting Wire	1
119	70900119E	Quick coupling	1
121	70900121E	2400m/m_Connecting Wire(Lower)	1
122	70900122E	700m/m_Keyboard Wire	1
123	70900123E	Power Cord (Optional)	1
124	70900124E	2400m/m_TV Signal Cable	1
126	70900126E	500m/m_Ground Wire	1
127	70900127E	combo board-HDMI/TV/CSAFE/Network	1
128	70900128E	600m/m_HR monitor module W/Cable	1
130	70900130E	400m/m_Motor Power Cord	1
131	70900131E	M10 × P1.5 × 50m/m_Hex Head Bolt(15L)	1
132	70900132E	Ø15 × 0.3m/m_Wave Washer	1
133	70900133E	M5_Star Washer	4
134	70900134E	M5 × P0.8 × 20m/m_Phillips Head Screw	4
135	70900135E	M5 × P0.8 × 20m/m_Plastic Screws	4
136	70900136E	Bushing	4
138	70900138E	Ø4 × Ø10 × 1T_Flat Washer	1

GENERAL MAINTENANCE

Belt and Deck - Your treadmill uses a very high-efficient low-friction deck. Performance is maximized when the deck 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 deck 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.**

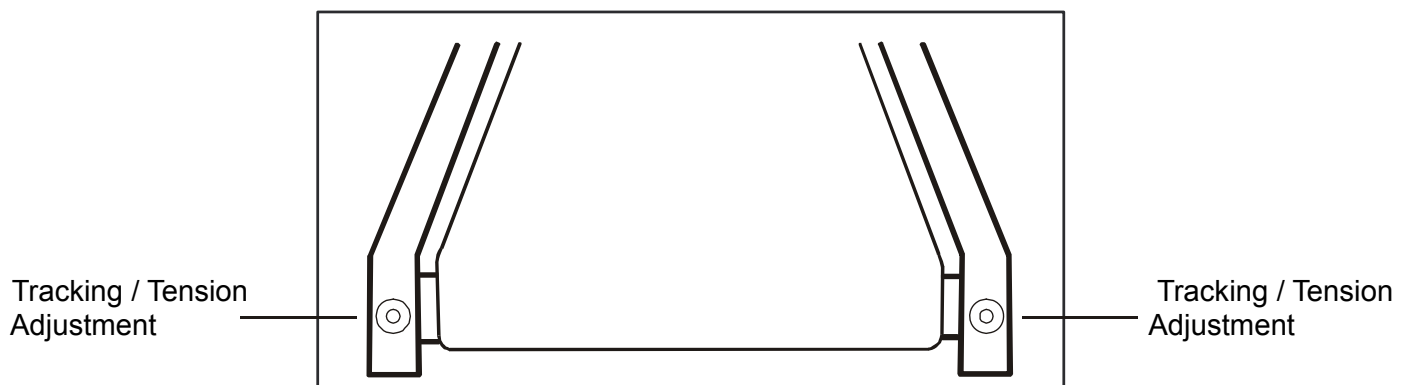
Belt Dust - This occurs during normal break-in or until the belt stabilizes. Wiping excess off with a damp cloth will minimize buildup.

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.**

The low maintenance (routine monthly cleaning), dual-sided hard wax deck is designed to withstand up to 32,000 kilometers on each side. If the original side of the deck shows significant wear, it needs to be flipped. Contact your service technician for assistance. Do not apply any type of lubricant or wax to the surface.

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. When an adjustment is made to the belt tension, you must be sure to turn the bolts on both sides evenly or the belt could start tracking to one side instead of running in the middle of the deck.

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

TREADBELT TRACKING ADJUSTMENT:

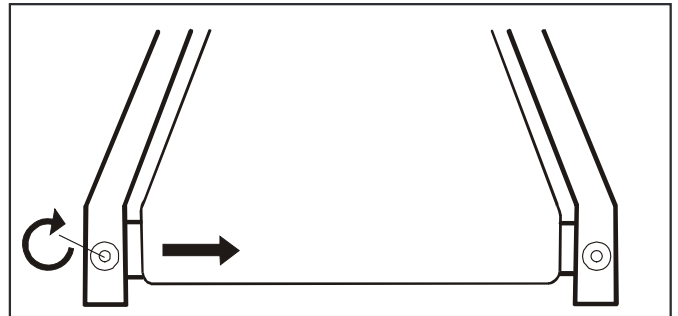
The performance of your treadmill is dependent on the frame running on a reasonably level surface. If the frame is not level, the front and back roller cannot run parallel, and constant belt adjustment may be necessary.

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:

An 8mm Allen wrench is provided for this adjustment. Make tracking adjustments on the left side bolt. Set the belt speed to 3 mph. Be aware that a small adjustment can make a dramatic difference which may not be apparent right away. If the belt is too close to the left side, then turn the bolt only a 1/4 turn to the right (clockwise) and wait a few minutes for the belt to adjust itself. Continue to make 1/4 turns until the belt stabilizes in the center of the running deck.

If the belt is too close to the right side, turn the bolt counter-clockwise. The belt may require periodic tracking adjustment depending on use and walking/running characteristics. Some users may affect tracking differently. Expect to make adjustments as required to center the treadbelt. 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.

Unplug treadmill before performing any maintenance.

Task	How To	Daily	Weekly	Monthly	Semi-Annually	Annually
Wipe Down Unit	Damp cloth w/ water	•				
Clean Under Belt	Towel or vacuum			•		
Check Belt Tension/Tracking	Feel/Visual		•			
Clean Under Motor Cover	Vacuum carefully				•	
Check Hardware	Wrench			•		
Inspect for Deck Wear	Visual				•	
Inspect Drive Belt	Visual				•	

SERVICE CHECKLIST - DIAGNOSIS GUIDE

Before contacting your dealer for aid, please review the following information. It may save you both time and expense. This list includes common problems that may not be covered under the treadmill's warranty.

PROBLEM	SOLUTION/CAUSE
Display does not light	1) Tether cord not in position. 2) Circuit breaker on front grill tripped. Push circuit breaker in until it locks. 3) Plug is disconnected. Make sure plug is firmly pushed into 120 VAC wall outlet. 4) Breaker panel circuit breaker may be tripped. 5) Treadmill defect. Contact your dealer.
Treadbelt does not stay centered Treadmill belt hesitates when walked/run on	The user may be walking while favoring or putting more weight on either the left or right foot. If this walking pattern is natural, track the belt slightly off-center to the side opposite from the belt movement. See General Maintenance section on Treadbelt Tension. Adjust as necessary.
Motor is not responsive after pressing start	1. Reset power. If still no good contact service.
Treadmill will only achieve approximately 7mph but shows higher speed on display	This indicates motor should be receiving power to operate. Do not use an extension cord. If an extension cord is required it should be as short as possible and heavy duty 16-gauge minimum, low voltage. Contact an electrician or your dealer. A minimum of 120 volt AC current is required.
Treadmill trips on board 20 amp circuit	High belt/ deck friction. See General Maintenance section on cleaning the deck. If cleaning doesn't prevent this from reoccurring, check to see if there is significant wear of the deck. If so, the deck may need to be flipped if it is on its original side.
Computer shuts off when console is touched (on a cold day) while walking/running	Treadmill may not be grounded. Static electricity is "crashing" the computer. Refer to Grounding Instructions
Circuit breaker trips, but not the treadmill circuit breaker.	Need to replace the breaker with a "High inrush current" type breaker

TRAINING GUIDELINES

EXERCISE

Exercise is one of the most important factors in the overall health of an individual. Listed among its benefits are:

- Increased capacity for physical work (strength endurance)
- Increased cardiovascular (heart and arteries/veins) and respiratory efficiency
- Decreased risk of coronary heart disease
- Changes in body metabolism, e.g. losing weight
- Delaying the physiological effects of age
- Physiological effects, e.g. reduction in stress, increase in self-confidence, etc.

BASIC COMPONENTS OF PHYSICAL FITNESS

There are four all encompassing components of physical fitness and we need to briefly define each and clarify its role.

Strength is the capacity of a muscle to exert a force against resistance. Strength contributes to power and speed and is of great importance to a majority of sports people.

Muscular Endurance is the capacity to exert a force repeatedly over a period of time, e.g. it is the capacity of your legs to carry you 10 Km without stopping.

Flexibility is the range of motion about a joint. Improving flexibility involves the stretching of muscles and tendons to maintain or increase suppleness, and provides increased resistance to muscle injury or soreness.

Cardio-Respiratory Endurance is the most essential component of physical fitness. It is the efficient functioning of the heart and lungs

AEROBIC FITNESS

The largest amount of oxygen that you can use per minute during exercise is called your maximum oxygen uptake (MVo₂). This is often referred to as your aerobic capacity.

The effort that you can exert over a prolonged period of time is limited by your ability to deliver oxygen to the working muscles. Regular vigorous exercise produces a training effect that can increase your aerobic capacity by as much as 20 to 30%. An increased MVO₂ indicates an increased ability of the heart to pump blood, of the lungs to ventilate oxygen and of the muscles to take up oxygen.

Anaerobic Training

This means “without oxygen” and is the output of energy when the oxygen supply is insufficient to meet the body’s long term energy demands. (For example, 100 meter sprint).

The Training Threshold

This is the minimum level of exercise which is required to produce significant improvements in any physical fitness parameter.

Progression

As you become fitter, a higher intensity of exercise is required to create an overload and therefore provide continued improvement

Overload

This is where you exercise at a level above that which can be carried out comfortably. The intensity, duration and frequency of exercise should be above the training threshold and should be gradually increased as the body adapts to the increasing demands. As your fitness level improves, so the training threshold should be raised.

Working through your program and gradually increasing the overload factor is important.

Specificity

Different forms of exercise produce different results. The type of exercise that is carried out is specific both to the muscle groups being used and to the energy source involved.

There is little transfer of the effects of exercise, i.e. from strength training to cardiovascular fitness. That is why it is important to have an exercise program tailored to your specific needs.

Reversibility

If you stop exercising or do not do your program often enough, you will lose the benefits you have gained. Regular workouts are the key to success.

WARM UP

Every exercise program should start with a warm up where the body is prepared for the effort to come. It should be gentle and preferably use the muscles to be involved later.

Stretching should be included in both your warm up and cool down, and should be performed after 3-5 minutes of low intensity aerobic activity or callisthenic type exercise.

Warm Down or Cool Down

This involves a gradual decrease in the intensity of the exercise session. Following exercise, a large supply of blood remains in the working muscles. If it is not returned promptly to the central circulation, pooling of blood may occur in the muscles

Heart Rate

As you exercise, so the rate at which your heart beat also increases. This is often used as a measure of the required intensity of exercise. You need to exercise hard enough to condition your circulatory system, and increase your pulse rate, but not enough to strain your heart.

Your initial level of fitness is important in developing an exercise program for you. If you are starting off, you can get a good training effect with a heart rate of 110-120 beats per minute (BPM). If you are fitter, you will need a higher threshold of stimulation.

To begin with, you should exercise at a level that elevates your heart rate to about 65 to 70% of your maximum. If you find this is too easy, you may want to increase it, but it is better to lean on the conservative side.

As a rule of thumb, the maximum heart rate is 220 minus your age. As you increase in age, so your heart, like other muscles, loses some of its efficiency. Some of its natural loss is won back as fitness improves.

The following table is a guide to those who are “starting fitness”.

Age	25	30	35	40	45	50	55	60	65
Target heart Rate 10 Second Count	23	22	22	21	20	19	19	18	18
Beats per Minute	138	132	132	126	120	114	114	108	108

Pulse Count

The pulse count (on your wrist or carotid artery in the neck, taken with two index fingers) is done for ten seconds, taken a few seconds after you stop exercising. This is for two reasons: (a) 10 seconds is long enough for accuracy, (b) the pulse count is to approximate your BPM rate at the time you are exercising. Since heart rate slows as you recover, a longer count isn't as accurate.

The target is not a magic number, but a general guide. If you're above average fitness, you may work quite comfortably a little above that suggested for your age group.

The following table is a guide to those who are keeping fit. Here we are working at about 80% of maximum.

Age	25	30	35	40	45	50	55	60	65
Target heart Rate 10 Second Count	26	26	25	24	23	22	22	21	20
Beats per Minute	156	156	150	144	138	132	132	126	120

Don't push yourself too hard to reach the figures on this table. It can be very uncomfortable if you overdo it. Let it happen naturally as you work through your program. Remember, the target is a guide, not a rule, a little above or below is just fine.

Two final comments:(1) don't be concerned with day to day variations in your pulse rate, being under pressure or not enough sleep can affect it;(2) your pulse rate is a guide, don't become a slave to it.

ENDURANCE CIRCUIT TRAINING

Cardiovascular endurance, muscle, strength, flexibility and coordination are all necessary for maximum fitness. The principle behind circuit training is to give a person all the essentials at one time by going through your exercise program moving as fast as possible between each exercise. This increases the heart rate and sustains it, which improves the fitness level. Do not introduce this circuit training effect until you have reached an advanced program stage.

Body Building

Is often used synonymously with strength training. The fundamental principal here is OVERLOAD. Here, the muscle works against greater loads than usual. This can be done by increasing the load you are working against.

Patronization

This is the term used to vary your exercise program for both physiological and psychological benefits. In your overall program, you should vary the workload, frequency and intensity. The body responds better to variety and so do you. In addition, when you feel yourself getting “stale”, bring in periods of lighter exercise to allow the body to recuperate and restore its reserves. You will enjoy your program more and feel better for it.

Muscle Soreness

For the first week or so, this may be the only indication you have that you are on an exercise program. This, of course, does depend on your overall fitness level. A confirmation that you are on the correct program is a very slight soreness in most major muscle groups. This is quite normal and will disappear in a matter of days.

If you experience major discomfort, you may be on a program that is too advanced or you have increased your program too rapidly.

If you experience PAIN during or after exercise, your body is telling you something. Stop exercising and consult your doctor.

WHAT TO WEAR

Wear clothing that will not restrict your movement in any way while exercising. Clothes should be light enough to allow the body to cool. Excessive clothing that causes you to perspire more than you normally would while exercising, gives you no advantage. The extra weight you lose is body fluid and will be replaced with the next glass of water you drink. It is advisable to wear a pair of gym or running shoes or “sneakers”.

Breathing During Exercise

Do not hold your breath while exercising. Breathe normally as much as possible. Remember, breathing involves the intake and distribution of oxygen, which feeds the working muscles.

Rest periods

Once you start your exercise program, you should continue through to the end. Do not break off halfway through and then restart at the same place later on without going through the warm-up stage again.

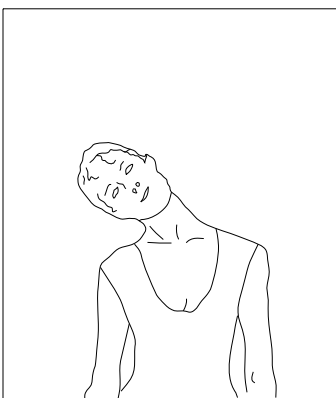
The rest period required between strength training exercises may vary from person to person. This will depend mostly on your level of fitness and the program you have chosen. Rest between exercises by all means, but do not allow this to exceed two minutes. Most people manage with half minute to one minute rest periods.

STRETCHING

Stretching should be included in both your warm up and cool down, and should be performed after 3-5 minutes of low intensity aerobic activity or callisthenic type exercise. Movements should be performed slowly and smoothly, with no bouncing or jerking. Move into the stretch until slight tension, not pain, is felt in the muscle and hold for 20-30 seconds. Breathing should be slow, rhythmical and under control, making sure never to hold your breath.

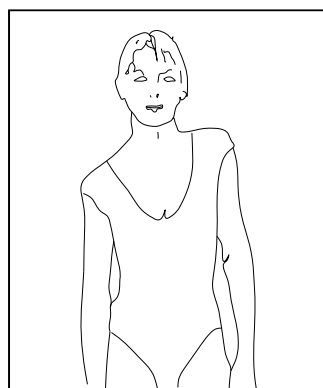
HEAD ROLLS

Rotate your head to the right for one count, feeling the stretch up the left side of your neck. Next rotate your head back for one count, stretching your chin to the ceiling and letting your mouth open. Rotate your head to the left for one count, and finally, drop your head to your chest for one count.



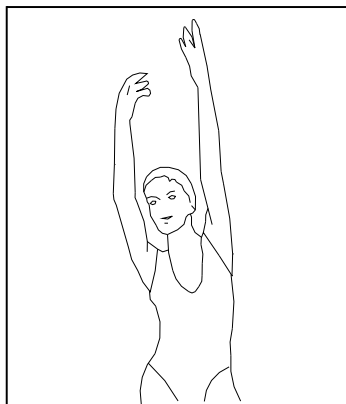
SHOULDER LIFTS

Lift your right shoulder up toward your ear for one count. Then lift your left shoulder up for one count as you lower your right shoulder.



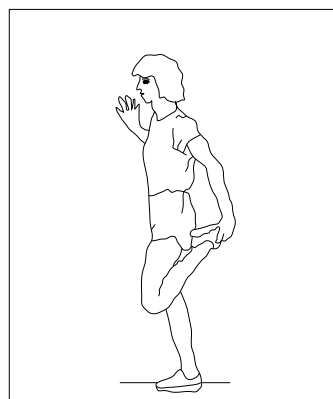
SIDE STRETCHES

Open your arms to the side and continue lifting them until they are over your head. Reach your right arm as far upward toward the ceiling as you can for one count. Feel the stretch up your right side. Repeat this action with your left arm.



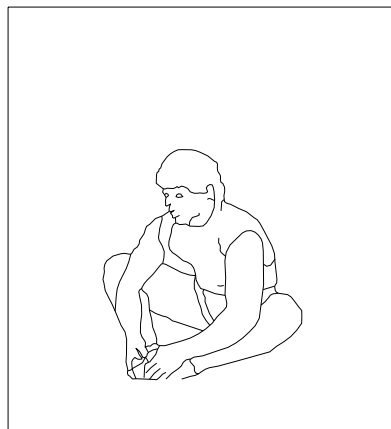
QUADRICEPS STRETCH

With one hand against a wall for balance, reach behind you and pull your right foot up. Bring your heel as close to your buttocks as possible. Hold for 15 counts and repeat with left foot up.



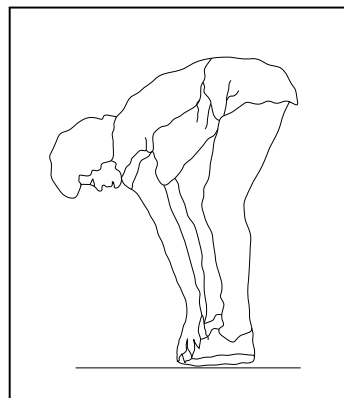
INNER THIGH STRETCH

Sit with the soles of your feet together with your knees pointing outward. Pull your feet as close into your groin as possible. Gently push your knees towards the floor. Hold for 15 counts.



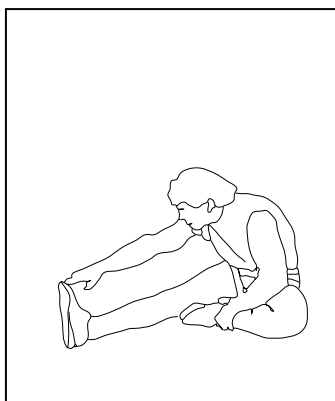
TOUCHES

Slowly bend forward from your waist, letting your back and shoulders relax as you stretch toward your toes. Reach down as far as you can and hold for 15 counts.



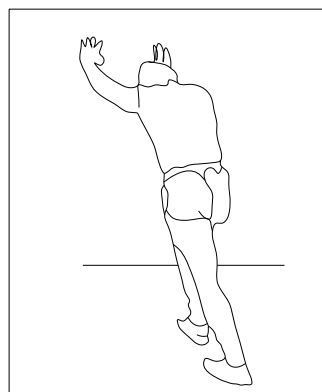
HAMSTRING STRETCHES

Sit with your right leg extended. Rest the sole of your left foot against your right inner thigh. Stretch as far as possible. Hold for 15 counts. Relax and then repeat with left leg extended.



CALF / ACHILLES STRETCH

Lean against a wall with your left leg in front of the right and your arms forward. Keep toward your toe your right leg straight and the left foot on the floor then bend the left leg and lean forward by moving your hips toward the wall. Hold, then repeat on the other side for 15 counts.



MANUFACTURER'S LIMITED WARRANTY

Dyaco Canada Inc. warrants all its Spirit treadmill for a period of time listed below, from the date of retail sale, as determined by a sales receipt. Dyaco Canada Inc.'s responsibilities include providing new or remanufactured parts, at Dyaco Canada Inc.'s option, and technical support to our independent dealers and servicing organizations. In the absence of a dealer or service organization, these warranties will be administered by Dyaco Canada Inc. directly to the facility. The warranty period applies to the following components:

Commercial (All Facility)

Frame	Lifetime
Motor	10 Years
Deck	3 Years
Parts	3 Years
Labour	3 Years

This warranty is not transferable and is extended only to the original owner.

NORMAL RESPONSIBILITIES OF THE FACILITY

The facility is responsible for the items listed below:

1. The warranty registration card must be completed and returned to the address listed on the card within 10 days of the original purchase.
2. Proper use of the treadmill in accordance with the instructions provided in this manual.
3. Proper installation in accordance with instructions provided with the treadmill and with all local electric codes.
4. Proper connection to a grounded power supply of sufficient voltage, replacement of blown fuses, repair of loose connections or defects in facility wiring.
5. Expenses for making the treadmill accessible for servicing, including any item that was not part of the treadmill at the time it was shipped from the factory.
6. Damages to the treadmill finish during shipping, installation or following installation.
7. Routine maintenance of this unit as specified in this manual.

EXCLUSIONS

This warranty does not cover the following:

1. CONSEQUENTIAL, COLLATERAL, OR INCIDENTAL DAMAGES SUCH AS PROPERTY DAMAGE AND INCIDENTAL EXPENSES RESULTING FROM ANY BREACH OF THIS WRITTEN OR ANY IMPLIED WARRANTY.
Note: Some areas do not allow the exclusion or limitation of incidental or consequential damages, so this limitation or exclusion may not apply to you.
2. Service call reimbursement to the facility. Service call reimbursement to the dealer that does not involve malfunction or defects in workmanship or material, for units that are beyond the warranty period, for units that are beyond the service call reimbursement period, for treadmill not requiring component replacement.
3. Damages caused by services performed by persons other than authorized Dyaco Canada Inc. service companies; use of parts other than original Dyaco Canada Inc. parts; or external causes such as corrosion, discoloration of paint or plastic, alterations, modifications, abuse, misuse, accident, improper maintenance, inadequate power supply, or acts of God.
4. Products with original serial numbers that have been removed or altered.
5. Products that have been: sold, transferred, bartered, or given to a third party.
6. Products that do not have a warranty registration card on file at Dyaco Canada Inc. Dyaco Canada Inc. reserves the right to request proof of purchase if no warranty record exists for the product.
7. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND/OR FITNESS FOR A PARTICULAR PURPOSE.
8. Warranties outside of Canada may vary. Please contact your local dealer or Dyaco Canada for details.

SERVICE

The sales receipt establishes the labour warranty period should service be required. If service is performed, it is in your best interest to obtain and keep all receipts. This written warranty gives you specific legal rights. Service under this warranty must be obtained by following these steps, in order:

1. Contact your selling authorized Spirit dealer or Dyaco Canada.
2. If you have any questions about your new product or questions about the warranty contact Dyaco Canada Inc. at 1-888-707-1880.
3. If no local service is available, Dyaco Canada Inc. will repair or replace the parts, at Dyaco Canada Inc.'s option, within the warranty period at no charge for parts. All transportation costs, both to our factory and upon return to the facility, are the responsibility of the facility. The facility is responsible for adequate packaging upon return to Dyaco Canada Inc. Dyaco Canada Inc. is not responsible for damages that occur during shipping. Make all freight damage claims with the appropriate freight carrier. DO NOT SHIP ANY UNIT TO OUR FACTORY WITHOUT A RETURN AUTHORIZATION NUMBER. All units arriving without a return authorization number will be refused.
4. For any further information, or to contact our service department by mail, send your correspondence to:

Dyaco Canada Inc.
5955 Don Murie Street
Niagara Falls, ON
L2G 0A9

Product features or specifications as described or illustrated are subject to change without notice. All warranties are made by Dyaco Canada.



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