

SPIRIT



XG400 Elliptical Trainer OWNER'S MANUAL

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

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ATTENTION

This elliptical is intended for residential use only and is warranted for this application. Any other application voids this warranty in its entirety.

Important Safety Instructions

WARNING - Read all instructions before using this appliance.

DANGER - To reduce the risk of electric shock disconnect your elliptical 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 elliptical on a flat level surface with access to a [230-volt, 10-amp](#) / [120-volt, 15-amp](#) grounded outlet with only the elliptical plugged into the circuit.

DO NOT USE AN EXTENSION CORD UNLESS IT IS A 18AWG OR BETTER, WITH ONLY ONE OUTLET ON THE END:

1. Do not operate elliptical on deeply padded, plush or shag carpet. Damage to both carpet and elliptical may result.
2. Keep children away from the elliptical. There are obvious pinch points and other caution areas that can cause harm.
3. Keep hands away from all moving parts.
4. Never operate the elliptical if it has a damaged cord or plug. If the elliptical is not working properly, call your dealer.
5. Keep the cord away from heated surfaces.
6. 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.
7. Never drop or insert any object into any openings.
8. Do not use outdoors.
9. To disconnect, turn all controls to the off position, then remove the plug from the outlet.
10. Do not attempt to use your elliptical for any purpose other than for the purpose it is intended.
11. The hand pulse sensors are not medical devices. Their purpose is to provide you with an approximate measurement in relation to your target heart rate. Use of a chest transmitter strap (sold separately) is a much more accurate method of heart rate analysis. 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.
12. Wear proper shoes. High heels, dress shoes, sandals or bare feet are not suitable for use on your elliptical. Quality athletic shoes are recommended to avoid leg fatigue.

SAVE THESE INSTRUCTIONS - THINK SAFETY!

Fitness Equipment Safety Instructions

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

- Do not operate equipment on deeply padded, plush or shag carpet. Damage to both carpet and equipment may result.
- Before beginning this or any exercise program, consult a physician. This is especially important for persons over the age of 35 or persons with pre-existing health conditions.
- Do not attempt to use your equipment for any purpose other than for the purpose it is intended.
- Keep hands away from all moving parts.
- The pulse sensors are not medical devices. Their purpose is to provide you with an approximate measurement in relation to your target heart rate. Use of a chest transmitter strap (sold separately) is a much more accurate method of heart rate analysis. 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 equipment. Quality athletic shoes are recommended to avoid leg fatigue.
Failure to follow all guidelines may compromise the effectiveness of the exercise experience, expose yourself (and possibly others) to injury, and reduce the longevity of the equipment.

Important Electrical Instructions

WARNING!

NEVER remove any cover without first disconnecting AC power. If voltage varies by ten percent (10%) or more, the performance of your elliptical 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 elliptical 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 operating temperature specification is **5 to 48 degrees Celsius (40 to 120 degrees Fahrenheit)**, and humidity is 95 non-condensing (no water drops forming on surfaces).

Important Operation Instructions

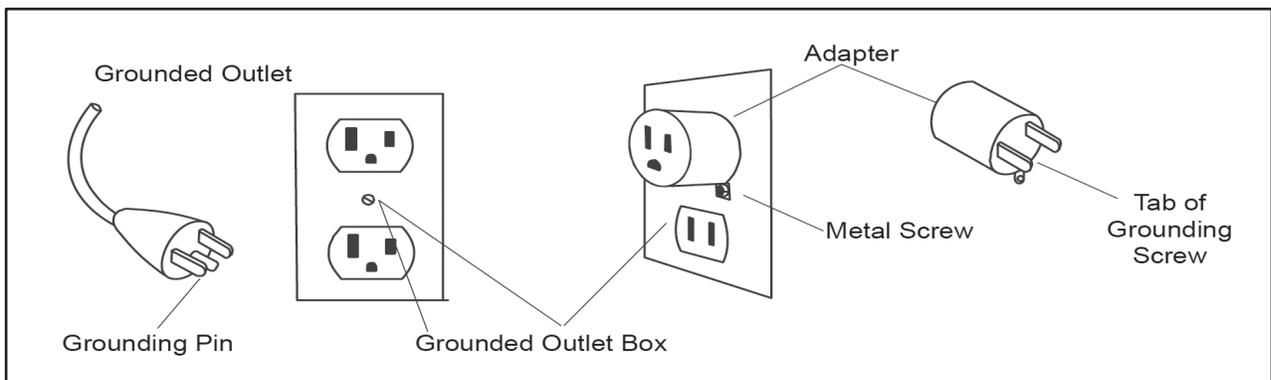
- **NEVER** operate this elliptical without reading and completely understanding the results of any operational change you request from the computer.
- Understand that changes in resistance do not occur immediately. Set your desired resistance level on the computer console and release the adjustment key. The computer will obey the command gradually.
- **NEVER** use your elliptical during an electrical storm. Surges may occur in your household power supply that could damage elliptical components. Unplug the elliptical during an electrical storm as a precaution.
- Use caution while participating in other activities while pedaling on your elliptical; such as watching television, reading, etc. These distractions may cause you to lose balance which may result in serious injury.
- Do not use excessive pressure on console control keys. They are precision set to function properly with little finger pressure.

Grounding Instructions

This product must be grounded. If the your equipment 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 **110-volt/15 amp (220-volt/10 amp)** dedicated 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.

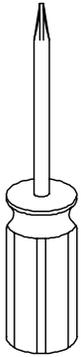


ASSEMBLY INSTRUCTIONS

PRE-ASSEMBLY

1. Using a razor knife (Box Cutter), cut the banding straps that wrap around the carton. Reach under the bottom edge of the carton and pull it away from the cardboard underneath, separating the staples that join the two together. Lift the box over the unit and unpack.
2. Carefully remove all parts from carton and inspect for any damage or missing parts. If damaged parts are found, or parts are missing, contact your dealer immediately.
3. 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.

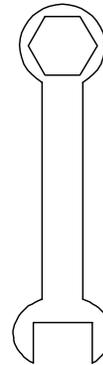
ASSEMBLY TOOLS



#107. Phillips Head Screw



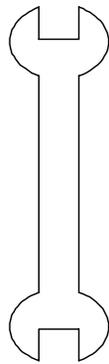
#108. 8mm Allen Wrench



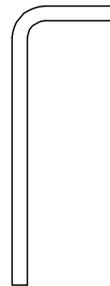
#109. 17mm Wrench



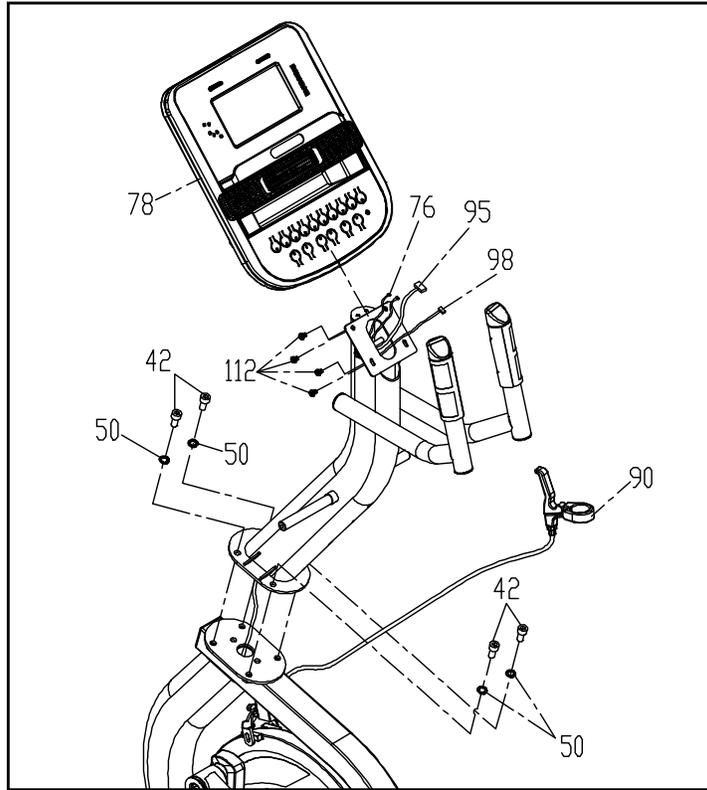
#110. 5mm Allen Wrench



#111. 13/14mm Wrench



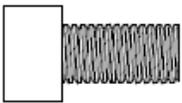
#116. 6mm Allen Wrench



STEP 1

1. Gather **HARDWARE FOR STEP 1**.
2. Feed the **COMPUTER CABLE (95)** up through the console mast tube (pulse grip posts at the top) with the end of the twist tie that is attached to it.
3. Place the **CONSOLE MAST TUBE** onto the mating plate of the main frame; Be careful not to pinch the Computer cable between the console mast and the main frame plates during assembly.
4. Secure the console mast in place with the 4 stainless steel **BOLTS (42)** and **SPLIT WASHERS (50)**. Make sure the bolts are securely tightened using the 8mm Allen **WRENCH (108)**.
5. Attach the **CONSOLE (78)** to the bracket with 4 **PHILLIPS HEAD SCREWS (112)** using the **PHILLIPS HEAD SCREW DRIVER (107)**.
6. Attach the **HAND BRAKE LEVER (90)** to the handlebars as follows:
7. Remove the screw that is threaded into the nut on the backside of the hand brake with the **PHILLIPS HEAD SCREW DRIVER (107)**.
8. Place the hand brake bracket around the front of the right handlebar vertical tube, then insert the bolt through the back of the bracket and thread back into the nut. Tighten with the **PHILLIPS HEAD SCREW DRIVER (107)**.

HARDWARE



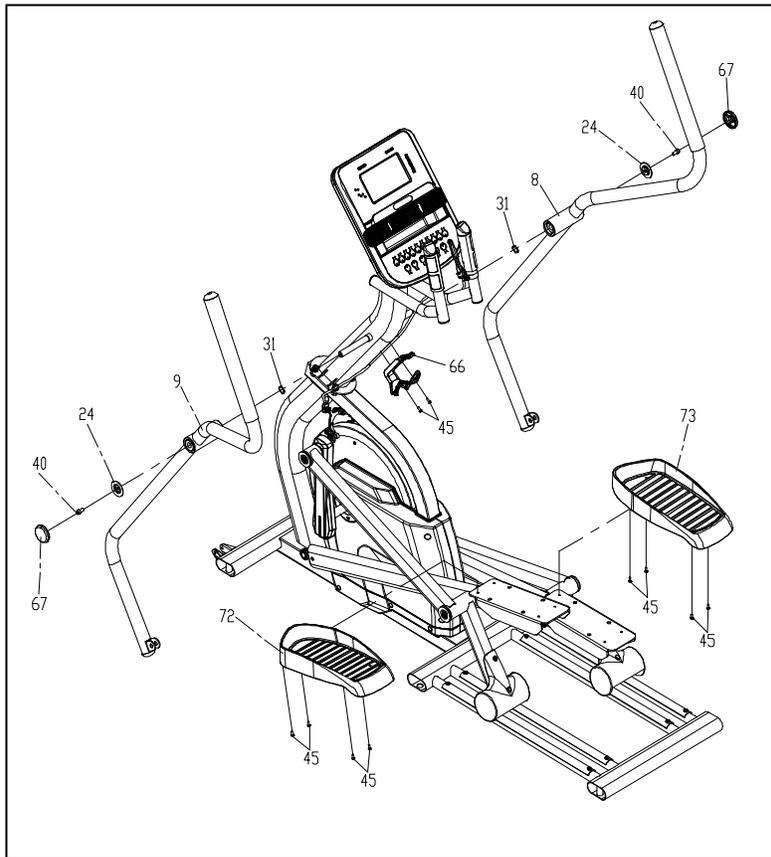
#42. M10 x 20mm
Stainless Steel Bolt
(4 pcs)



#50. M10x1.5t
Split Washer
(4 pcs)



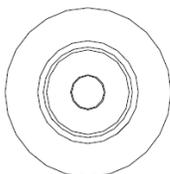
#112. M5 x 12mm
Phillips Head Screw
(4 pcs)



STEP 2

1. Gather **HARDWARE FOR STEP 2**.
2. Remove the foam from the console mast axles and the plastic ties from the tubes that slide onto the console mast axles.
3. Slide the **TWO SWING ARMS (8 RIGHT & 9 LEFT)** onto the console mast axle through a **WASHER WASHER (31)**. There is a left and right swing arm (marked with an "R" and an "L") so make sure you assemble the correct one on each side. Do not force the arms onto the axle or use a hammer, as damage to the bearings could occur. The swing arms have been previously installed at the factory and should fit properly, although it is a snug fit.
4. Secure the swing arms in place with the stainless steel bolts (**40; FLAT SIDE OF WASHERS SHOULD BE ON THE OUTSIDE**) and **CUP WASHERS (24)** and tighten with the **WRENCH (116)**. Snap the **DECORATIVE CAPS (67)** over the cup washers.
5. Install the **FOOT PEDALS (72 LEFT & 73 RIGHT)** with 8 **PHILLIPS HEAD SCREWS (45)** and tighten with the **PHILLIPS HEAD SCREW DRIVER (107)**. The pedals are identified with an L or R on the bottom.
6. Attach the **WATER BOTTLE HOLDER (66)** to the console mast tube with 2 **PHILLIPS HEAD SCREWS (45)**. Place the **BRAKE CABLE (90)** behind the holder to keep it out of the way of operation. Tighten the screws with the **PHILLIPS HEAD SCREW DRIVER (107)**.

HARDWARE



#24. Cup Washer
(2 pcs)



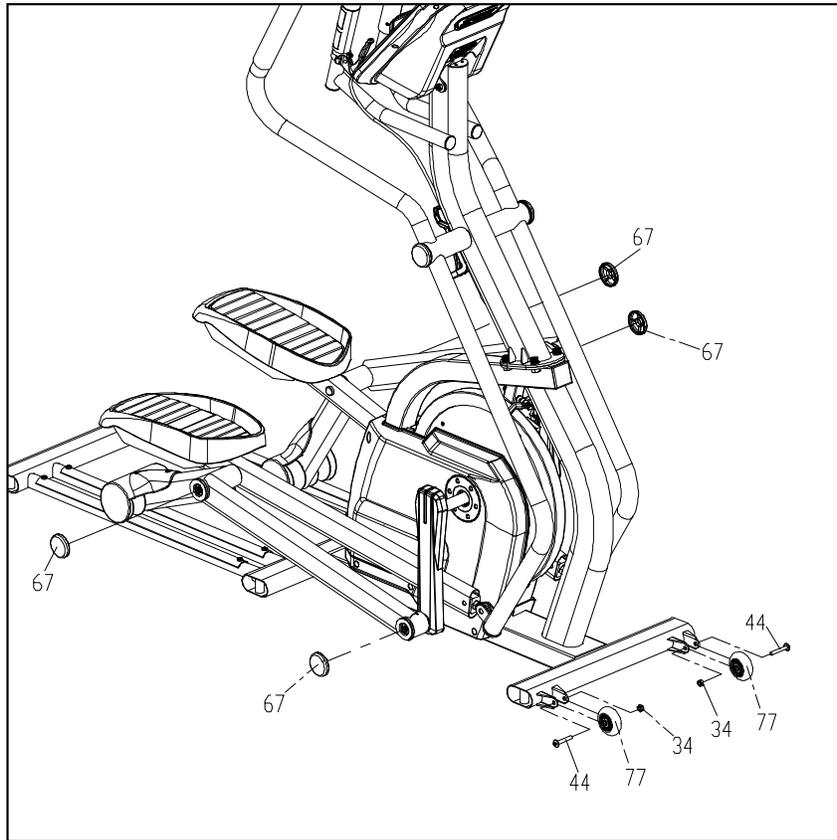
#40. M8 x 15mm
Stainless Steel Bolt
(2 pcs)



#45. M5 x 10mm
Phillips Head Screw
(10 pcs)



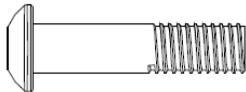
#31. Ø17
Wave Washer
(2 pcs)



STEP 3

1. Gather **HARDWARE FOR STEP 3**.
2. Attach the **TRANSPORT WHEELS (77)** to each bracket with the 2 **BOLTS (44)** and **NUTS (34)**. Partially tighten with the **WRENCHES** provided (**110 & 111**). Over tightening the hardware won't allow the wheels to rotate.
3. Snap the 4 **END CAPS (67)** onto the cup washers on the left & right pedal arm assemblies.

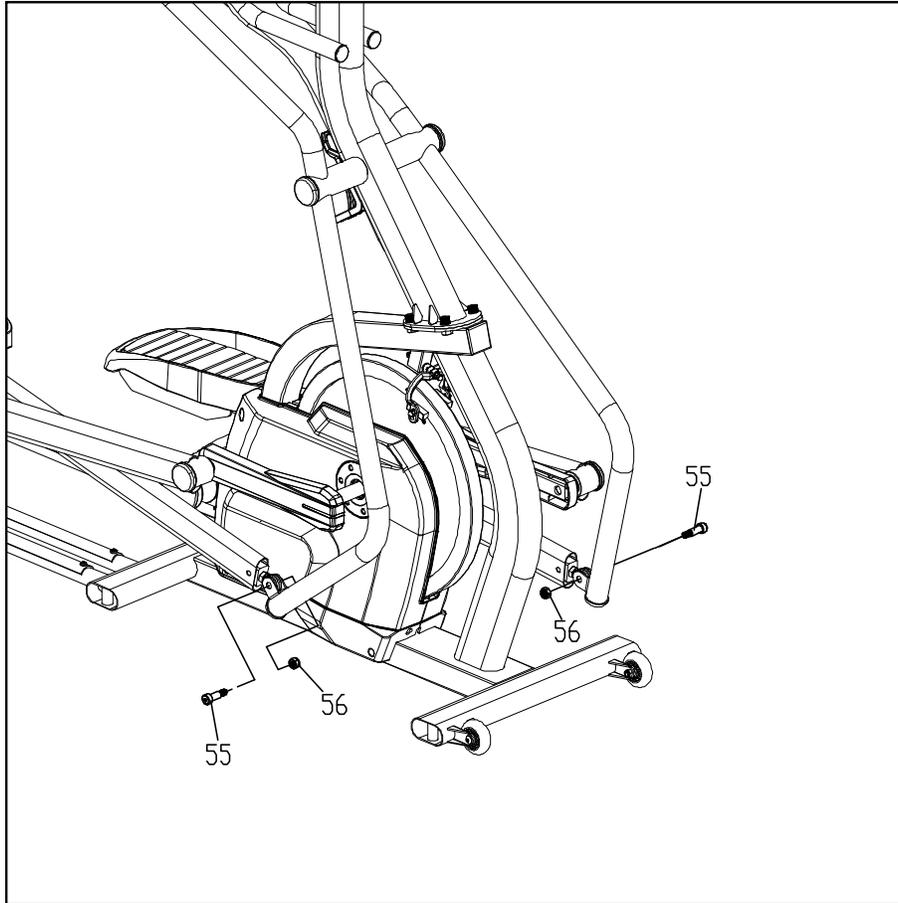
HARDWARE



#44. 5/16" x 1-3/4" Bolt
(2 pcs)



#34. 5/16" Nut
(2 pcs)



STEP 4

1. Gather **HARDWARE FOR STEP 4**.
2. Assemble the brackets at the bottom of the swing arms to the pedal arms using a shoulder **BOLT (55)** and a **NUT (56)** on each side. Tighten securely with the **WRENCHES** provided (**109 & 116**).

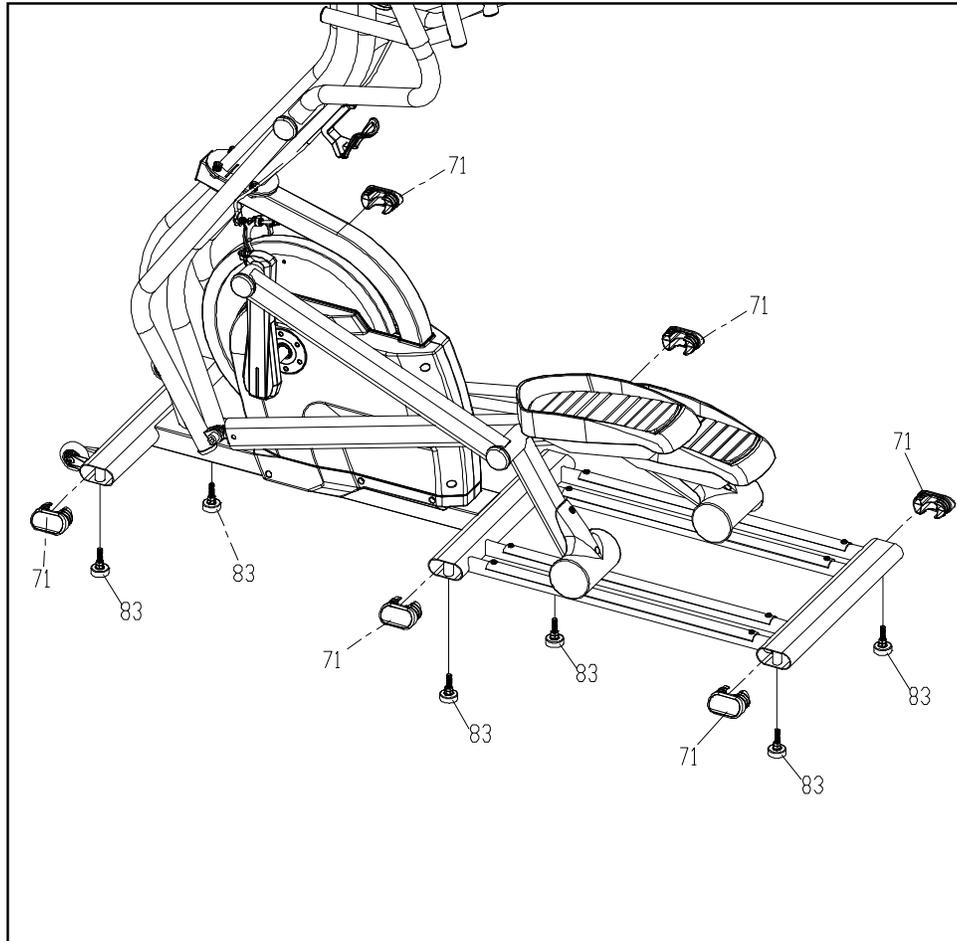
HARDWARE



#55. M10xP1.5x45L
Shoulder Bolt
(2 pcs)



#56. M10 Nut
(2 pcs)

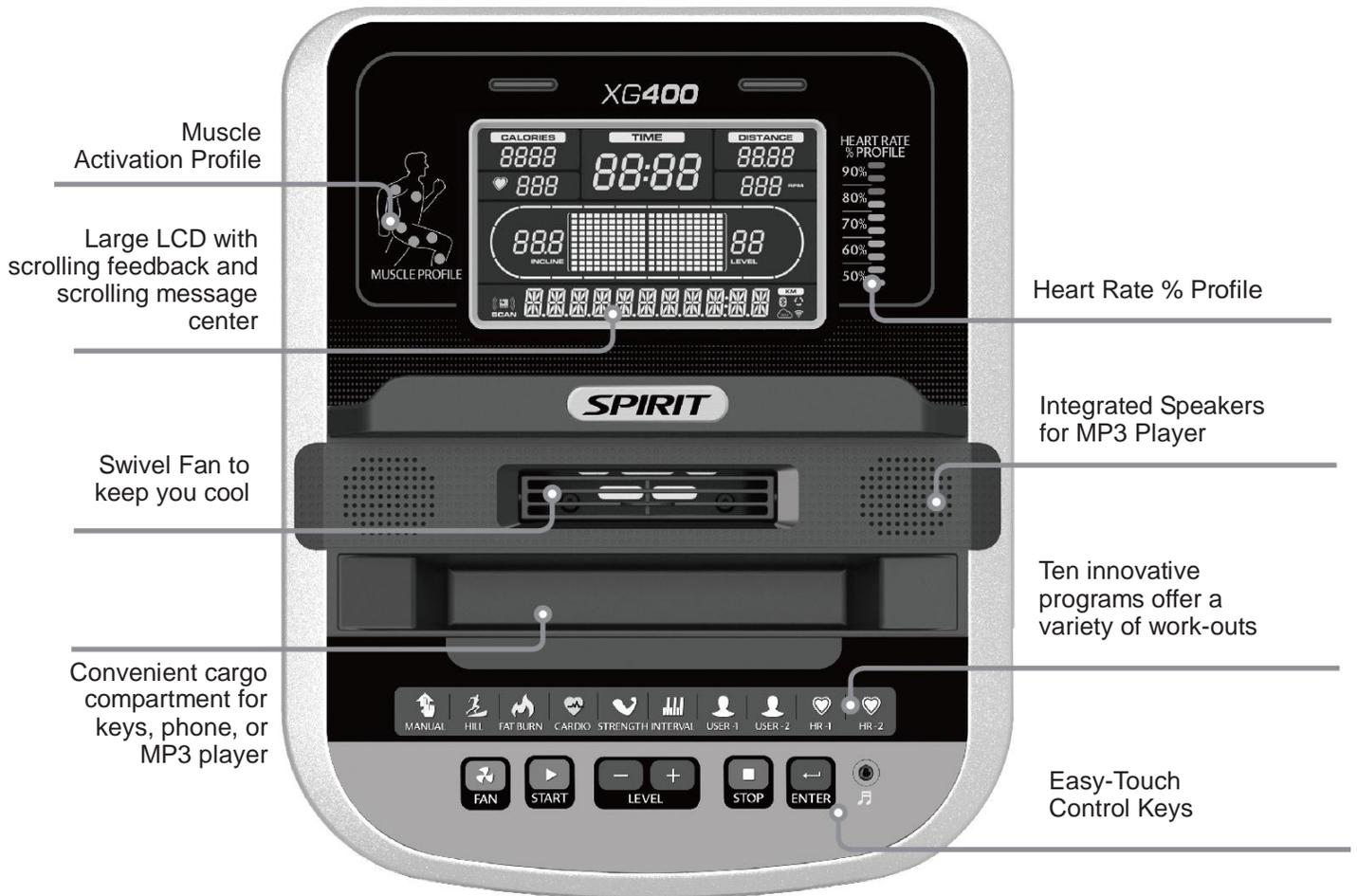


STEP 5

1. Gather **HARDWARE FOR STEP 5**.
2. Tilt the elliptical Trainer to one side and put something under the unit for support and install the 3 **LEVELERS (83)** for that side. Tilt the unit to the other side and install those 3 **LEVELERS (83)**. Level the elliptical Trainer once it is positioned where it will be used. Screw the two middle levelers all the way in and the front and rear levelers all the way in, then back them out about two or three turns. Level the unit using only the front and rear levelers first, then adjust the middle levelers so they touch the floor. **MAKE SURE TO LOCK THE LEVELERS WHEN FINISHED.**
3. Press the 6 **PLASTIC END CAPS (71)** into the oval stabilizer tubes.
4. Unlock the black lever located near the flywheel at the end of the **BRAKE CABLE (90)**. This is locked for shipping purposes, but also serves as a safety lock mechanism to prevent unauthorized use of this machine.

OPERATION OF YOUR CONSOLE

GETTING FAMILIAR WITH THE CONTROL PANEL



POWER

When the power cord is connected to the Elliptical trainer console will automatically power up.

When initially powered on the console will perform an internal self-test. During this time all the lights will turn on. When the lights go off, the Message Center will show the software version (i.e.: VER 1.0). The distance window shows the distance total and the time window shows the total hours of use.

The odometer will remain displayed for only a few seconds then the console will go to the start up display. The dot matrix display will be scrolling through the different profiles of the programs and the Message Center will be scrolling the start up message. You may now begin to use the console.

Dot Matrix Center Display

Twenty columns of boxes (10 high) indicate each segment of a workout. The boxes only show an approximate level (resistance) of effort. They do not necessarily indicate a specific value - only an approximate percent to compare levels of intensity. In Manual Operation the resistance dot matrix window will build a profile "picture" as values are changed during a workout.

The Lap track will move in a counterclockwise direction.

1/4 Mile / 0.4k Track

The 1/4-mile track (one lap) will be displayed around the dot matrix window. The flashing segment indicates your progress. Once the 1/4-mile (Metric - 0.4k) is complete this feature will begin again. There is a lap counter in the message window for monitoring your distance.

Pulse Grip Feature

The Pulse (Heart Rate) window will display your current heart rate in beats per minute during the workout. You must use both stainless steel sensors on the stationary grips or the heart rate transmitter chest strap to display your pulse. Pulse value displays anytime on the upper display when receiving a Pulse signal. You may not use the Grip Pulse feature while in Heart Rate Programs.

Calorie Display

Displays the cumulative calories burned at any given time during your workout.

Note: This is only a rough guide used for comparison of different exercise sessions, which cannot be used for medical purposes.

Speakers

The console has built-in Speakers and an audio input jack. There is no volume control on the console.

The volume must be controlled on the Audio Source.

Quick Start

This is the quickest way to start a workout. After the console powers up you just press the **Start** key to begin, this will initiate the Quick Start mode. In Quick Start the Time will count up from zero and the workload may be adjusted manually by pressing the **Level Up/Down** keys. The dot matrix display will have only the bottom row lit at first. As you increase the work load more rows will light indicating a harder workout. The Elliptical trainer will get harder to pedal as the rows increase.

There are 20 levels of resistance available for plenty of variety. The first 5 levels are very easy workloads and the changes between levels are set to a good progression for de-conditioned users. Levels 6-10 are more challenging, but the increases in resistance from one level to the next remain small. Levels 11-15 start getting tough as the levels jump more dramatically. Levels 16-20 are extremely hard and are good for short interval peaks and elite athletic training.

Basic Information

The Message Center will initially be displaying the Program name. When in scan mode during a program, speed will be displayed for four seconds, then move on and display Watts (indication of workload). If 100 watts is displayed, you are doing enough work to keep a 100-watt light bulb lit. The data changes to Laps completed, Segment time, Max level. Pressing the **Enter** key again will bring you back to the beginning.

The **Stop** key actually has several functions. Pressing the **Stop** key once during a program will pause the program for 5 minutes. If you need to get a drink, answer the phone or any of the many things that could interrupt your workout, this is a great feature. To resume your workout during Pause, just press the **Start** key. If the **Stop** key is pressed twice during a workout, the program will end and the console will display your Workout Summary (Total time, Avg. Speed, Avg. Watts, Avg. HR, total Laps). If the **Stop** key is held down for 3 seconds or a third time during the program, the console will perform a complete **Reset**. During data entry for a program the **Stop** key performs a previous screen or segment function. This allows you to go back to change programming data.

Program Keys

The program keys are used to preview each program. When you first turn the console on you may press each program key to preview what the program profile looks like. If you decide that you want to try a program, press the corresponding program key and then press the **Enter** key to select the program and enter into the data-setting mode.

The Elliptical trainer has a built in heart rate monitoring system. Simply grasping the hand pulse sensors on the stationary handle bars or wearing the heart rate transmitter (see Using Heart Rate Transmitter section) will start the Heart Icon blinking (this may take a few seconds). The Pulse Display Window will display your heart rate, or Pulse in beats per minute.

The console includes a built-in fan to help keep you cool. To turn the fan on, press the key on the left side of the console.

Muscle Activation Figure

There is an anatomical figure located at the top of the console. This figure will light all areas that are activated when using the elliptical trainer. These will light up during any of the programs. You can control which muscles are activated by customizing the resistance profile during the set up phase of console programming. If you accept the default program profile, the selected program will determine which muscles will be activated by automatically adjusting the resistance. Generally the following guidelines hold true:

- The upper body lights will activate when you are either holding onto the swing arms or at anytime your hands aren't holding onto the pulse grip sensors.
- The lower body lights will activate in three degrees of engagement: Green represents minimal muscle involvement, Amber represents medium involvement, and Red represents full or heavy activation.
- These are the different scenarios for lower body muscle activation
- Forward pedal rotation Gluteals & Quadriceps are Amber; Hamstrings & Calves are Green
- Reverse pedal rotation Calves, Hamstrings, and Quadriceps are Amber; Gluteals are Green

Heart Rate % Profile

The console LCD screen will display your current heart rate anytime a pulse is detected. The Bar Graph, located to the right of the LCD screen, will show your current heart rate % in relation to your projected maximum heart rate, which is determined by your age that you entered during the programming phase of any of the 10 programs. The significance of the bar graph colors are as follows:

- 50-60% of maximum is Amber
- 65-80% of maximum is Amber and Green
- 85-90% or more is Amber, Green, and Red

Programming The Console

Each of the programs can be customized with your personal information and changed to suit your needs. Some of the information asked for is necessary to ensure the readouts are correct. You will be asked for your Age and Weight. Entering your Age is necessary during the Heart Rate programs to ensure the correct settings are in the program for your Age. Otherwise the work settings could be too high or low for you. Entering your Weight aides in calculating a more correct Calorie reading. Although we cannot provide an exact calorie count, we do want to be as close as possible.

CALORIE NOTE: Calorie readings on every piece of exercise equipment, whether it is in a gym or at home, are not accurate and tend to vary widely. They are meant only as a guide to monitor your progress from workout to workout. The only way to measure your calorie burn accurately is in a clinical setting connected to a host of machines. This is because every person is different and burns calories at a different rate. Some good news is that you will continue to burn calories at an accelerated rate for at least an hour after you have finished exercising!

Entering A Program And Changing Settings

When you enter a program, by pressing a program key, then **Enter** key, you have the option of entering your own personal settings. If you want to workout without entering new settings, then just press the **Start** key. This will bypass the programming of data and take you directly to the start of your workout. If you want to change the personal settings then just follow the instructions in the Message Center. If you start a program without changing the settings, the default or saved settings will be used.

NOTE: Age and Weight default settings will change when you enter a new number. So the last Age and Weight entered will be saved as the new default settings. If you enter your Age and Weight the first time you use the elliptical trainer, you will not have to enter it every time you work out unless either your Age or Weight changes, or someone else enters a different Age and Weight.

Programmable Features

Manual

The Manual program works as the name implies, manually. This means that you control the workload and not the computer. To start the Manual program, follow the instructions below or just press the **Start** key.

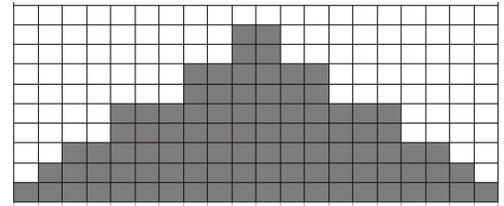
1. Press the **Manual** key, then press the **Enter** key.
2. The Message Center will ask you to enter your Age. You may enter your age, using the **Level Up/Down** keys, then press the **Enter** key to accept the new value and proceed on to the next screen.
3. You are now asked to enter your Weight. You may adjust the Weight value using the **Level Up/Down** keys, then press **Enter** to continue.
4. Next is Time. You may adjust the Time and press **Enter** to continue.
5. Now you are finished editing the settings and can begin your workout by pressing the **Start** key. You can also go back and modify your settings by pressing the **Enter** key.
6. Once the program starts you will be at level one. This is the easiest level and it is a good idea to stay at level one for a while to warm up. If you want to increase the work load at any time press the **Level Up** key; the **Level Down** key will decrease the work-load.
7. During the Manual program you will be able to scroll through the data in the Message Center by pressing the **Enter** key.
8. When the program ends you may press **Start** to begin the same program again or **Stop** to exit the program or you can save the program you just completed as a custom user program by pressing a **User** key and following the instructions in the Message Center.

Preset Programs

The elliptical has five different programs that have been designed for a variety of workouts. These five programs have factory preset work level profiles for achieving different goals.

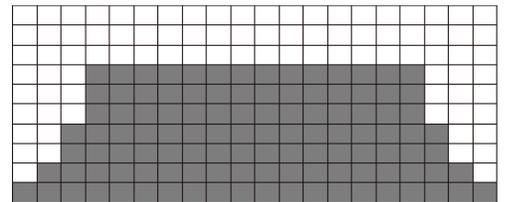
HILL

This program follows a triangle or pyramid type of gradual progression from approximately 10% of maximum effort (the level that you chose before starting this program) up to a maximum effort which lasts for 10% of the total workout time, then a gradual regression of resistance back to approximately 10% of maximum effort.



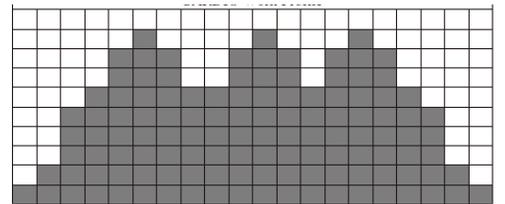
FAT BURN

This program follows a quick progression up to the maximum resistance level (default or user input level) that is sustained for 2/3 of the workout. This program will challenge your ability to sustain your energy output for an extended period of time.



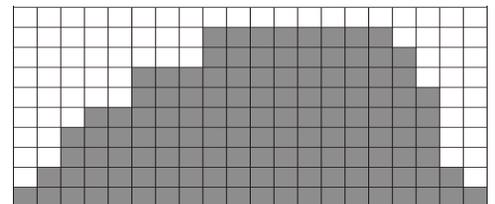
CARDIO

This program presents a quick progression up to near maximum resistance level (default or user input level). It has slight fluctuations up and down to allow your heart rate to elevate, and then recover repeatedly, before beginning a quick cool down. This will build up your heart muscle and increase blood flow and lung capacity.



STRENGTH

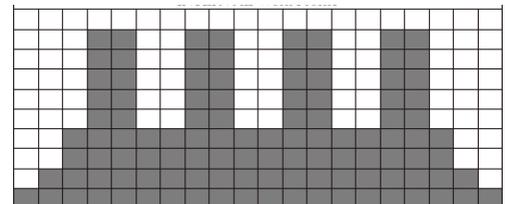
This program has a gradual progression of resistance up to 100% of maximum effort that is sustained for 25% of workout duration. This will help build strength and muscular endurance in the lower body and glutes. A brief cool down follows.



INTERVAL

This program takes you through high levels of intensity followed by recovery periods of low intensity.

This program utilizes and develops your “Fast Twitch” muscle fibers which are used when performing tasks that are intense and short in duration. These deplete your oxygen level and spike your heart rate, followed by periods of recovery and heart rate drop to replenish oxygen. Your cardiovascular system gets programmed to use oxygen more efficiently.



Programming Preset Programs

1. Select the desired program key then press the **Enter** key.
2. The Message Center will ask you to enter your Age. You may adjust the age setting, using the **Level Up/Down** keys, then press the **Enter** key to accept the new number and proceed on to the next screen.
3. You are now asked to enter your Weight. You may adjust the Weight value using the **Level Up/Down** keys, then press **Enter** to continue.
4. Next is Time. You may adjust the time and press **Enter** to continue.
5. Now you are asked to adjust the Max Resistance Level. This is the peak exertion level you will experience during the program. Adjust the level and then press **Enter**.
6. Now you are finished editing the settings and can begin your workout by pressing the **Start** key. You can also go back and modify your settings by pressing the **Enter** key.
7. If you want to increase or decrease the resistance at any time during the program, press the **Level Up/Down** keys on the console or above the heart rate sensor grips of the stationary handlebars. This will change the resistance settings of the entire profile, although the profile picture on the screen will not change. The reason for this is so that you can see the entire profile at all times. If the profile picture is changed, it also would be distorted and not a true representation of the actual profile. When you make a change to the resistance, the Message Center will show the current column and program maximum levels of work.
8. During the program you will be able to scroll through the data in the message window by pressing the **Enter** key.
9. When the program ends the Message Center will show a summary of your workout. The summary will be displayed for a short time, then the console will return to the start-up display

Custom User Defined Programs

There are two customizable User programs that allow you to build and save your own workout. The two programs, **User 1** and **User 2**, operate exactly the same way so there is no reason to describe them separately. You can build your own custom program by following the instructions below or you can save any other preset program you complete as a custom program. Both programs allow you to further personalize it by adding your name.

1. Press the **User 1** or **User 2** key. The Message Center will show a welcome message. If you had previously saved a program the message will contain your name. Then press the **Enter** key to begin programming.
2. If you have already saved a program to either **U1** or **U2**, it will be displayed and you are ready to begin. If not, you will have the option of inputting a username. In the Message Window, the letter "A" will be blinking. Use the **Level Up/ Down buttons** to select the appropriate first letter of your name (pressing the up button will switch to the letter "B"; pressing the Down button will switch to letter "Z"). Press **Enter** when the desired letter is displayed. Repeat this process until all of the characters of your name have been programmed (maximum 7 characters). When finished press **Stop**.
3. If there is a program already stored in User when you press the key, you will have an option to run the program as it is or delete the program and build a new one. At the welcome message screen, when pressing **Start** or **Enter** you will be prompted: Run Program? Use the **Level Up/Down** arrows to select Yes or No. If you select No, you will then be asked if you want to delete the currently saved program. It is necessary to delete the current program if you want to build a new one.
4. The Message Center will ask you to enter your Age. You may enter your age, using the **Level Up/Down keys**, then press the **Enter** key to accept the new value and proceed on to the next screen.
5. You are now asked to enter your Weight. You may adjust the weight value using the **Level Up /Down keys** or the numeric key pad, then press **Enter** to continue.
6. Next is Time. You may adjust the time and press **Enter** to continue.
7. Now you are asked to adjust the Max Resistance Level of the program, press **Enter** when resistance has been selected.
8. Now the first column will be blinking and you are asked to adjust the resistance level for the first segment (SEGMENT of the workout by using the **Level Up key**. When you finish adjusting the first segment, or if you don't want to change, then press **Enter** to continue to the next segment.
9. The next segment will show the same workload resistance level as the previously adjusted segment. Repeat the same process as the last segment then press **Enter**. Continue this process until all twenty segments have been set.
10. The Message Center will then tell you to press Enter to save the program. After saving the program the Message Center says "PROG SAVED" then will give you the option to Start or modify the program. Pressing Stop will exit to the start up screen.

Heart Rate Programs

Before we get started, a word about 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 usual choice of exercise intensity was either too high or too low and exercise is much more enjoyable by maintaining their heart rate in the desired benefit range.

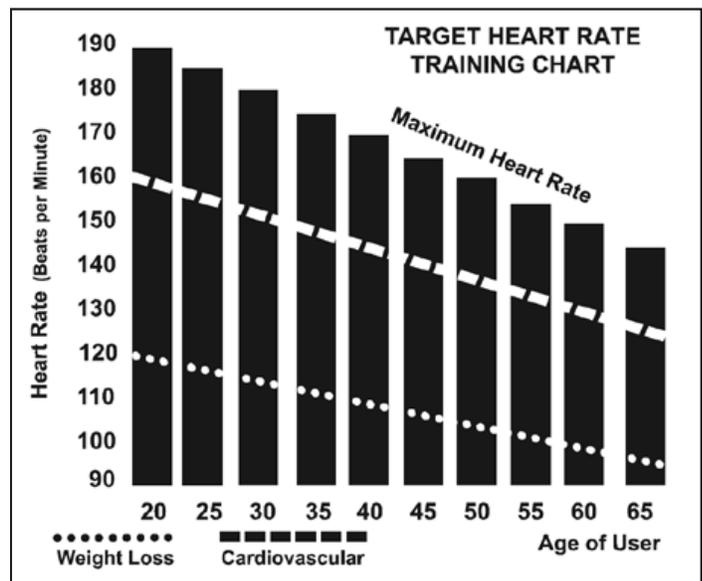
To determine the benefit range in which you wish to train, you must first determine your Maximum Heart Rate. This can be accomplished by using the following formula: 220 minus your age. This will give you the Maximum heart rate (MHR) for someone of your age. To determine the effective heart rate range 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:

$220 - 40 = 180$ (maximum heart rate)
 $180 \times .6 = 108$ beats per minute (60% of maximum)
 $180 \times .8 = 144$ beats per minute (80% of maximum)

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.

With all Heart Rate Control elliptical machines you may use the heart rate monitor feature without using the Heart Rate Control program. This function can be used during manual mode or during any of the nine different programs. The Heart Rate Control program automatically controls resistance at the pedals.

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 know 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

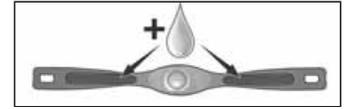
- 6 Minimal
- 7 Very, very light
- 8 Very, very light +
- 9 Very light
- 10 Very light +
- 11 Fairly light
- 12 Comfortable
- 13 Somewhat hard
- 14 Somewhat hard +
- 15 Hard
- 16 Hard +
- 17 Very hard
- 18 Very hard +
- 19 Very, very hard
- 20 Maximal

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 elliptical trainer 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. Normally the transmitter will be oriented so the Spirit Fitness logo is right side up.
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 your dealer.

Using the Spirit Fit App

In order to help you achieve your exercise goals, your new exercise machine comes equipped with a Bluetooth® transceiver that will allow it to interact with selected phones or tablet computers via the Spirit Fit App.

Just download the free Spirit Fit App from the Apple Store or Google Play, and then follow the instructions in the App to sync with your exercise machine. Now you can view current workout data in three different Display screens on your device. You can also easily switch back and forth from the workout display view to internet/social media/email sites via icons on the display screen. When your workout is finished, the data is automatically saved to the built-in personal calendar for future reference.

The Spirit Fit App also allows you to sync your workout data with one of many fitness cloud sites we support: iHealth, MapMyFitness, Record or Fitbit, with more to come.

Syncing the App with your exercise machine:

1. Download the App.
2. Open the App on your device (phone or tablet) and make sure Bluetooth® is enabled on your device (phone or tablet).
3. In the App click the icon in the top left corner to search for your Spirit equipment (shown right).
4. After the equipment is detected, click Connect. When the App and equipment are synced, the Bluetooth® icon on the equipment's console display will light up. You may now start using your new Spirit Fitness product.
5. When your workout is finished, the data is automatically saved and you will be prompted to sync your data with each available fitness cloud site. Please note you will have to download the applicable compatible fitness App, such as iHealth, MapMyFitness, Record, Fitbit, etc, in order for the icon to be active and available.



**Note: Your device will need to be running on a minimum operating system of iOS 7 or Android 4.4 for the Spirit Fit App to operate properly.*

Heart Rate Program Operation

Note: You must wear the heart rate transmitter strap for these programs.

Both programs operate the same, the only difference is that **HR1** is set to 60% and **HR2** is set to 80% of the maximum heart rate. They both are programmed the same way.

To start an HRC program follow the instructions below or just select the HR1 or HR2 program, then the Enter button and follow the directions in the Message Center.

After selecting your heart rate target the program will attempt to keep you at or within 3-5 heart beats per minute of this value. Follow the prompts in the Message Center to maintain your selected heart rate value.

1. Press the **HR 1** or **HR 2** key then press the **Enter** key.
2. The Message Center will ask you to enter your Age. You may enter your age, using the **Level Up/Down keys**, then press the **Enter** key to accept the new value and proceed on to the next screen.
3. You are now asked to enter your Weight. You may adjust the weight value using the **Level Up/Down keys**, then press **Enter** to continue.
4. Next is Time. You may adjust the time and press **Enter** to continue.
5. Now you are asked to adjust the Heart Rate Target. This is the heart rate level you will strive to maintain during the program. Adjust the level using the **Level Up/Down keys**, then press **Enter**.
Note: The heart rate that appears is based on the % you accepted in Step 1. If you change this number it will either increase or decrease the % from Step 1.
6. Now you are finished editing the settings and can begin your workout by pressing the **Start** key. You can also go back and modify your settings by pressing the **Enter** key.
7. If you want to increase or decrease the workload at any time during the program press the **Level Up/Down key**. This will allow you to change your target heart rate at any time during the program.
8. During the HR 1 or HR 2 programs you will be able to scroll through the data in the Message Center by pressing the **Enter** key.
9. When the program ends you may press **Start** to begin the same program again or **Stop** to exit the program.

GENERAL MAINTENANCE

1. Wipe down all areas in the sweat path with a damp cloth after each workout.
2. If a squeak, thump, clicking or rough feeling develops the main cause is most likely one of several reasons:
 - i. The hardware was not sufficiently tightened during assembly. All bolts that were installed during assembly need to be tightened as much as possible. It may be necessary to use a larger wrench than the one provided if you cannot tighten the bolts sufficiently. I cannot stress this point enough; 90% of calls to the service department for noise issues can be traced to loose hardware.
 - ii. Dirt build-up on the rear rails and polyurethane wheels are also a source of noise. Noise from build-up on the rails can cause a thumping sound that you would swear is coming from inside the main body of the machine because noise travels, and is amplified, in the tubing of the frame. Clean the rails and wheels with a lint free cloth and rubbing alcohol. Stubborn build-up can be removed with your thumbnail or a nonmetallic scraper, like the back edge of a plastic knife. After cleaning, apply a small amount of lubricant on the rails with your fingers or a lint free cloth. You only need a thin coat of lubrication, wipe off any excess.
 - iii. The crank arm nut needs to be retightened
 - iv. If squeaks or other noises persist, check that the unit is properly leveled. There are 2 leveling pads on the bottom of the rear stabilizer, use a 14mm wrench (or adjustable wrench) to adjust the levelers.

Engineering Mode Menu

The console has built in maintenance/diagnostic software. The software will allow you to change the console settings from English to Metric and turn off the beeping of the speaker when a key is pressed for example. To enter the Engineering Mode Menu, press and hold down the **Start**, **Stop** and **Enter** keys. Keep holding the keys down for about 5 seconds and the message center will display Engineering Mode Menu. Press the **Enter** button to access the menu below:

1. KeyTest (Will allow you to test all the keys to make sure they are functioning)
2. LCDTest (Tests all the display functions)
3. Functions (Press **Enter** to access settings and **Up** arrow to scroll)
 - i. Display Mode (Turn **off** to have the console power down automatically after 20 minutes of inactivity)
 - ii. Pause Mode (Turn on allow 5 minutes of pause, turn off to have the console pause indefinitely)
 - iii. ODO Reset (Resets the odometer)
 - iv. Units (Sets the display to readout in English or Metric display measurements)
 - v. Beep (Turns off the speaker so no beeping sound is heard)
 - vi. Motor Test
 - vii. Safety
4. Security (Allows the keypad to be locked to prevent unauthorized use)

Exploded diagram



A x 6pcs

Parts list

NO.	DESCRIPTION	Q'TY
1	Main Frame	1
2	Console Mast	1
3	Sliding Pedal Arm (R)	1
4	Sliding Pedal Arm (L)	1
5	Connecting Pedal Arm (R)	1
6	Connecting Pedal Arm (L)	1
7	Main Crank Axle	1
8	Swing Arm (R)	1
9	Swing Arm (L)	1
10	Crank Arm	2
11	Flywheel	1
11-1	Nylon Round Disk	2
12	Ø174_Main Pulley	1
13	Ø174_Drive Pulley	1
14	Drive Axle	1
15	Ø60_Flywheel Pulley	1
16	Axle for Idler Wheel (L)	1
17	Axle for Idler Wheel (R)	1
18	Bearing Housing, Crank Axle	2
19	Side Case bracket	2
21	Brake Magnet Mounting Arm	1
23	Brake Mounting Bracket	1
24	M8_Cup Washer For Bolt	6
25	6005_Bearing	3
26-1	6003_Bearing(CN TMT)	4
26-2	6003_Bearing(C3 TMT)	20
27	Rod End Bearing	2
28	Aluminum Track	4
29	Ø17_C Ring	6
30	Ø25_C Ring	4
31	Ø17_Wave Washer	14
32	M6 - 6t_Nyloc Nut	1
33	M8 - 6t_Nyloc Nut	2
34	5/16" - 7t_Nyloc Nut	2
35	M5 × 0.8 - 12m/m_Socket Head Cap Bolt	4
36	M5 × 0.8 - 20m/m_Socket Head Cap Bolt	1
37	M6 × 1.0 - 20m/m_Socket Head Cap Bolt	12
38	M6 × 1.0 - 50m/m_Socket Head Cap Bolt	1
39	M8 × 1.25 - 12m/m_Socket Head Cap Bolt	6
40	M8 × 1.25 - 15m/m_Socket Head Cap Bolt	7
41	M8 × 1.25 - 35m/m_Socket Head Cap Bolt	2
42	M10 × 1.5 - 20m/m_Socket Head Cap Bolt	4
43	M10 × 1.5-80m/m_Socket Head Cap Bolt	1
44	5/16" × 1-3/4" _Button Head Socket Bolt	2

NO.	DESCRIPTION	Q'TY
45	M5 x 0.8 - 10m/m_Phillips Head Screw	28
46	M6 x 1.0 - 10m/m_Phillips Head Screw	8
47	M5_Split Washer	4
48	M6_Split Washer	12
49	M8_Split Washer	1
50	M10_Split Washer	4
51	M5 - 4t_Nut	1
53	M10 x 1.5 x 220L_Idler Adj. Bolt	1
54	7 x 7 x 23L_Woodruff Key	2
55	M10 x 1.5_Shoulder Bolt	2
56	M10 - 10t_Nyloc Nut	2
57	6 x 6 x 16L_Twin Circle Key	1
58	Ø5 x 10 x 1.0T_Flat Washer	4
59	Ø8 x 35 x 3.0T_Flat Washer	1
60	M4 - 12m/m_Tapping Screw, Black	6
61	Round Side Case Insert	2
62	Side Case (L)	1
63	Side Case (R)	1
64	Square End Cap	1
65	Crank Cover	2
66	Drink Bottle Holder	1
67	M8_Bearing Shaft Plug	6
68	Slide Wheel Cover, Black	2
69	Button Head Plug	4
70	Round Cap	4
71	Handgrip End Cap	6
72	Pedal (L)	1
73	Pedal (R)	1
74	Sliding Wheel	4
75	Handgrip End Cap	2
76	850m/m_Handpulse W/Cable Assembly	2
77	Transportation Wheel	2
78	Console Assembly	1
78-1	Console Top Cover	1
78-2	Console Bottom Cover	1
78-3	Deflector Fan Grill	1
78-4	Wind Duct (L)	1
78-5	Wind Duct (R)	1
78-6	Speaker Grill Anchor	6
78-7	Fan Grill Anchor	2
78-8	LCD Transparent Piece	1
78-9	Water-resist Rubber	1
78-10	Book Rack	1
78-11	Logo Cover Plate	1
78-14	Console Display Board	1

NO.	DESCRIPTION	Q'TY
78-15	Keyboard	1
78-16	Fan Assembly	1
78-17	300m/m_Speaker W/Cable	2
78-18	Amplifier Controller	1
78-19	Interface Board	1
78-20	300m/m_W/Receiver, HR	1
78-22	300m/m_Earphone socket with cable and securing metal	1
78-23	250m/m_Amplifier Cable	1
78-24	Fan Fixing Plate	2
78-25	Bluetooth	1
79	Magnet	1
80	Speed Sensor Mounting Bracket	2
81	Brake Return Spring	1
82	Handgrip Foam	2
83	Rubber Foot	6
84	3/8" x 7T_Nut	12
85	Ø3/8" x Ø19 x 1.5T_Flat Washer	6
86	3/8"x16UNC-2_Flat Head Socket Bolt	6
87	Braking Magnet	1
88	Poly-V Belt, 6PK	1
89	Type PJ Belt	1
90	Emergency Brake Lever(Ø32)	1
91	Emergency Brake Assembly	1
91-1	Emergency Brake Pad	2
92	Emergency Brake Cable	1
93	265m/m_Resistance Sensor Cable	1
94	Gear Motor	1
95	1600m/m Computer Cable	1
96	750m/m DC Power Cord	1
97	700m/m,650m/m_Speed Sensor W/Cable	1
98	900m/m Resistance Connecting Cable	1
99	Handgrip Thin Film Label	2
100	Handgrip Resistance Label(DOWN)	1
101	Handgrip Resistance Label(UP)	1
102	M8 x 1.25 - 70m/m_Socket Head Cap Bolt	1
103	Ø5/16" x Ø25 x 3T_Nylon Washer	2
104	Power Adaptor	1
107	Phillips Head Screw Driver	1
108	5m/m_L Allen Wrench	1
109	17m/m_Combination Wrench	1
110	M6_L Allen Wrench	1
111	13.14m/m_Wrench	1
112	M5 x 0.8 - 12m/m_Phillips Head Screw	7
113	Magnet Bracket	1
114	Tension Cable Pulley	1
115	E-5_E Retaining Ring	1

NO.	DESCRIPTION	Q'TY
116	M8_L Allen Wrench	1
118	Ø6 x Ø19 x 3.0T_Flat Washer	12
119	Console Holder Assembly	1
120	M8 - 7t_Nyloc Nut	1
121	Ø3 x 20m/m_Tapping Screw	4
122	C Ring	2
123	Bearing Housing	2
124	M8-10m/m_Slotted Set Screw	1
126	Ø25_Wave Washer	1
127	6005_Bearing(2RS/B10+2M5)	3
128	Pedal Foam (R)	1
129	Pedal Foam (L)	1
130	Bushing	2