

# PHILIPS

## ReActiv

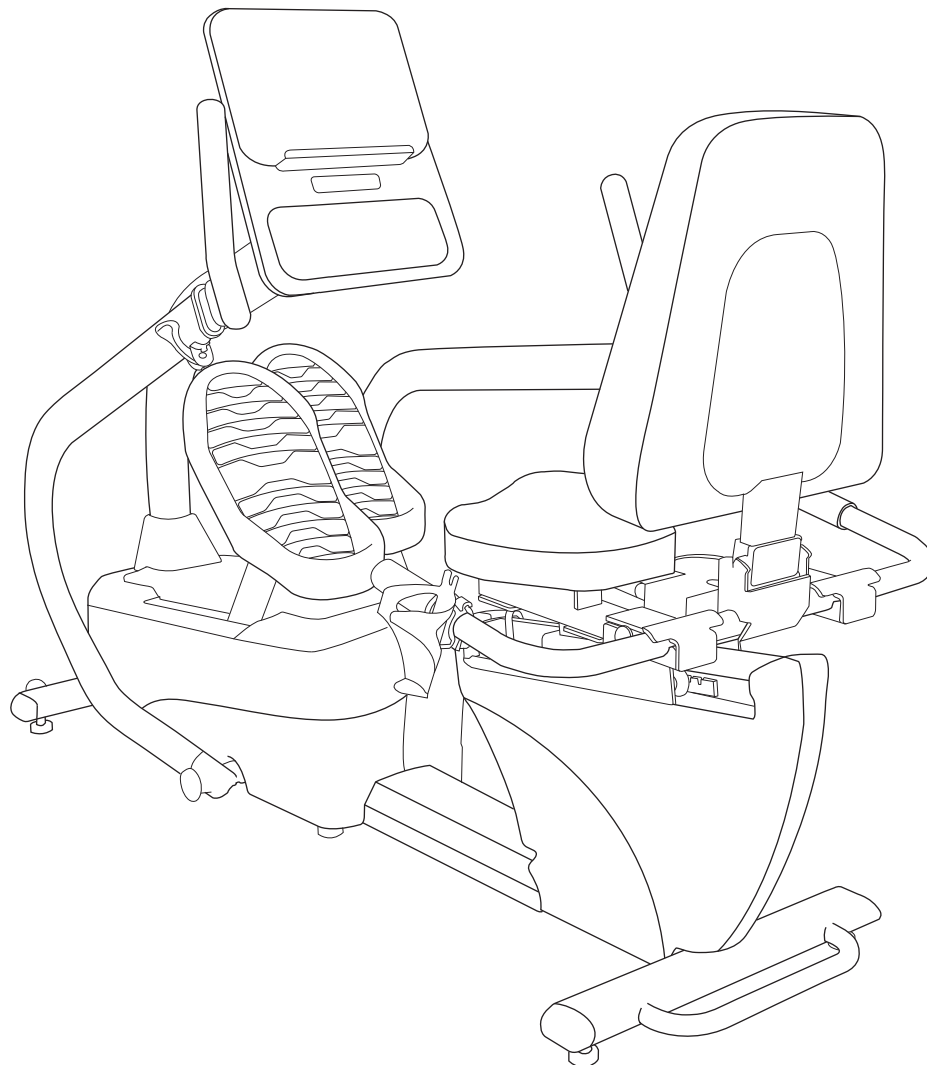
Recumbent stepper

4.0 S

# User manual

Please read this entire manual carefully before operating your new recumbent stepper and save it for future use.

## Physical therapy **solutions**



**PTE4000CS**

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Thank you for your recent purchase of the Philips physical rehabilitation recumbent stepper 4.0 S.

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### **Philips therapy solutions**

Delivering better outcomes

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# Important safety instructions

## **Attention**

Read all instructions in this manual before using this device.

## **Danger**

To reduce the risk of electric shock disconnect this device from the electrical outlet prior to cleaning and/or service work.

## **Warning**

- Before beginning exercise on this product, or any exercise program, consult a physician. This is especially important for persons over the age of 35 or persons with preexisting health conditions.
- There are obvious pinch points and other caution areas that can cause harm.
- Children under the age of 13 should be supervised to ensure that they do not play with the device.
- Keep hands away from all moving parts.
- Never drop or insert any object into any openings.
- Do not use outdoors.

- Do not operate this product on deeply padded, plush or shag carpet. Damage to both carpet and product may result.
- Do not attempt to use this product for any purpose other than for the purpose it is intended.
- 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 operate the product if it has a damaged cord or plug. If the product is not working properly, call your dealer.
- Keep the cord away from heated surfaces.
- 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 an exercise aids in determining heart rate trends in general.
- Heart rate monitoring systems may be inaccurate. Over exercising may result in serious injury or death. If you feel faint stop exercising immediately.
- Wear proper shoes. High heels, dress shoes, sandals or bare feet are not suitable for use on your fitness bike. Quality athletic shoes are recommended to avoid leg fatigue.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Maximum User Weight: 450 lbs.
- Save these instructions - think safety!

# Important electrical information

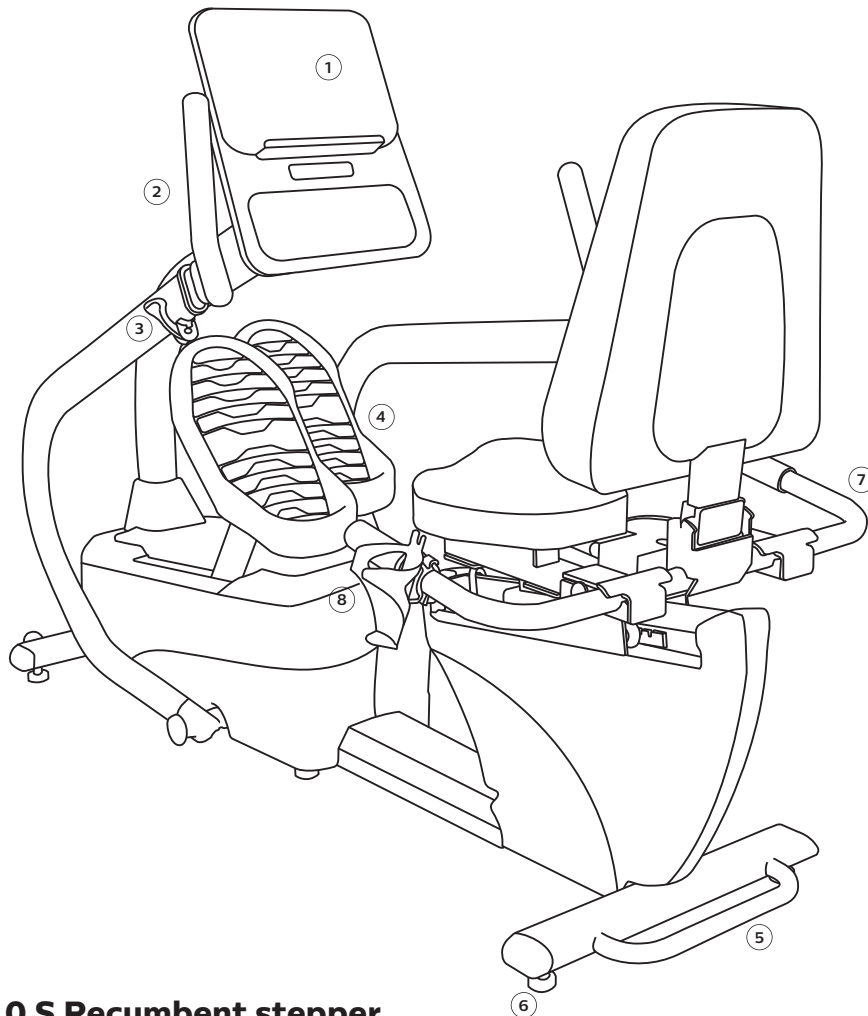
## **Warning**

- Never expose this product 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 product without reading and completely understanding the results of any operational change you request from the console.
- Understand that changes in resistance do not occur immediately. Set your desired resistance level on the console and release the adjustment key. The console will obey the command gradually.
- Use caution while participating in other activities while pedaling on your product; 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.

# Features



## **4.0 S Recumbent stepper**

### Parts and adjustments

1. Console
2. Upper body handles
3. Quick release lever
4. Cushioned footplates
5. Lifting handle for transport
6. Leveling glides
7. Seat angle adjustment
8. Seat position adjustment



# Assembly instructions

## **Unpacking**

- Cut the straps, then lift the box over the unit and unpack.
- Carefully remove all parts from the carton and inspect for any damage or missing parts. If parts are damaged or missing, contact your dealer immediately.
- Locate the hardware package. 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.

## **Tools included**

- 5mm L allen wrench
- 8mm L allen wrench
- 12/14mm wrench
- 13/14mm wrench
- Phillips screwdriver
- Short phillips screwdriver

## **Parts included**

- |                         |                      |
|-------------------------|----------------------|
| • 1 main frame          | • 4 end caps         |
| • 2 foot pedals         | • 2 transport wheels |
| • 1 seat cover          | • 1 seat             |
| • 1 connecting arm      | • 1 seat back frame  |
| • 1 console mast        | • 2 swing arms       |
| • 1 console mast cover  | • 1 console          |
| • 1 handle bar          | • 1 hardware kit     |
| • 1 drink bottle holder | • 1 power cord       |

# Assembly

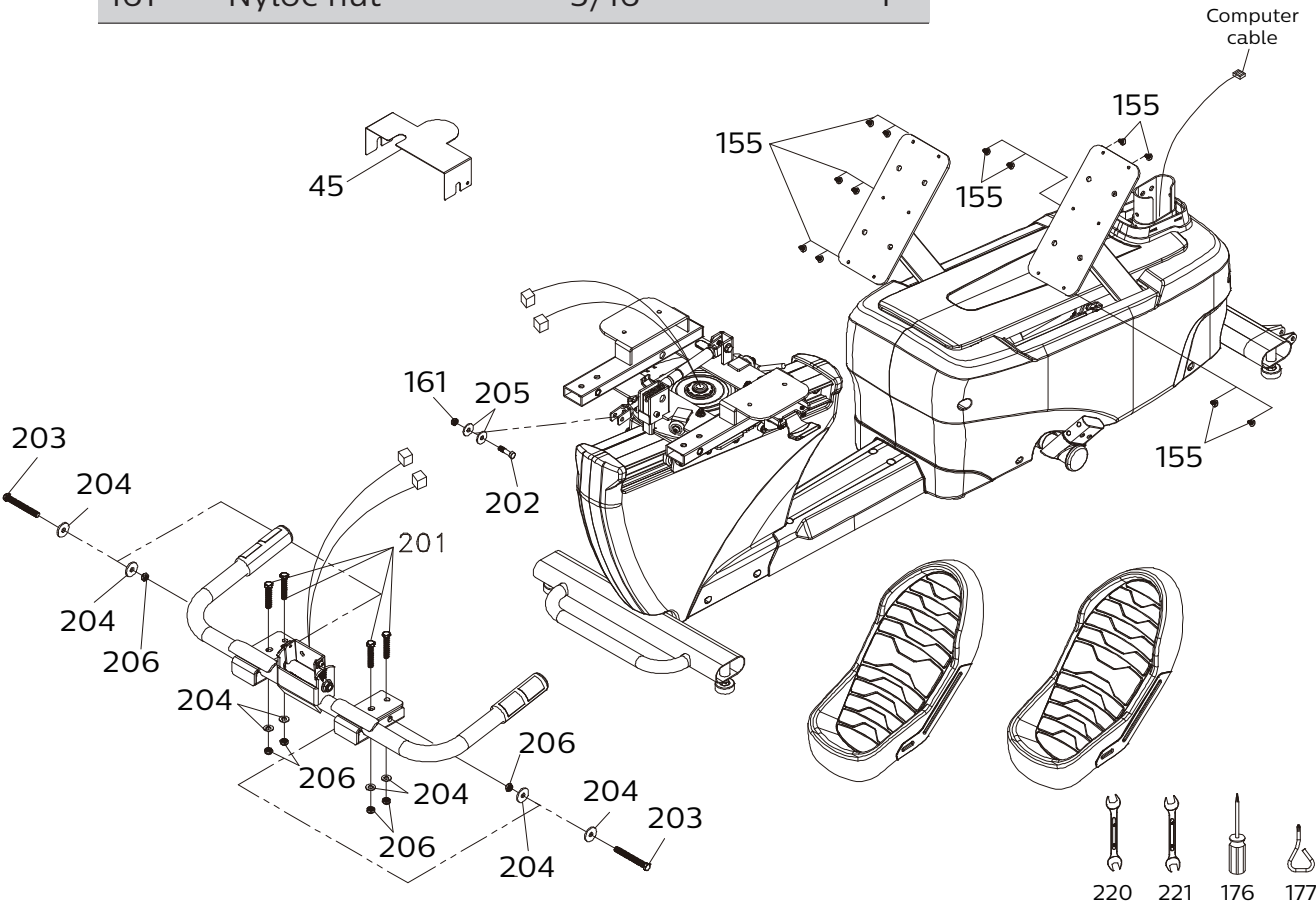
Read each step's instructions and study the drawing carefully to become familiar with all the parts and procedures before beginning each step.

## Step 1.

- Secure the pedals with phillips head screws (155).
- Install seat cover (45).
- Use hex head bolts (203) with flat washers (204) and nyloc nuts (206) and hex head bolts (201) and flat washers (204) and nyloc nuts (206) to secure handlebar on the seat assembly.
- Connect hand pulse cables; arrange cables taking care so they are not crushed during seat adjustment.

Hardware for step 1

Part	Type	Description	Qty
203	Hex head bolt	3/8" x 3-1/4"	2
201	Hex head bolt	3/8" x 2"	4
202	Hex head bolt	5/16" x 1-1/4"	1
155	Phillips head screw	M5 x 12	12
204	Flat washer	3/8"	8
205	Flat washer	Ø8.5	2
206	Nyloc nut	3/8"	6
161	Nyloc nut	5/16"	1

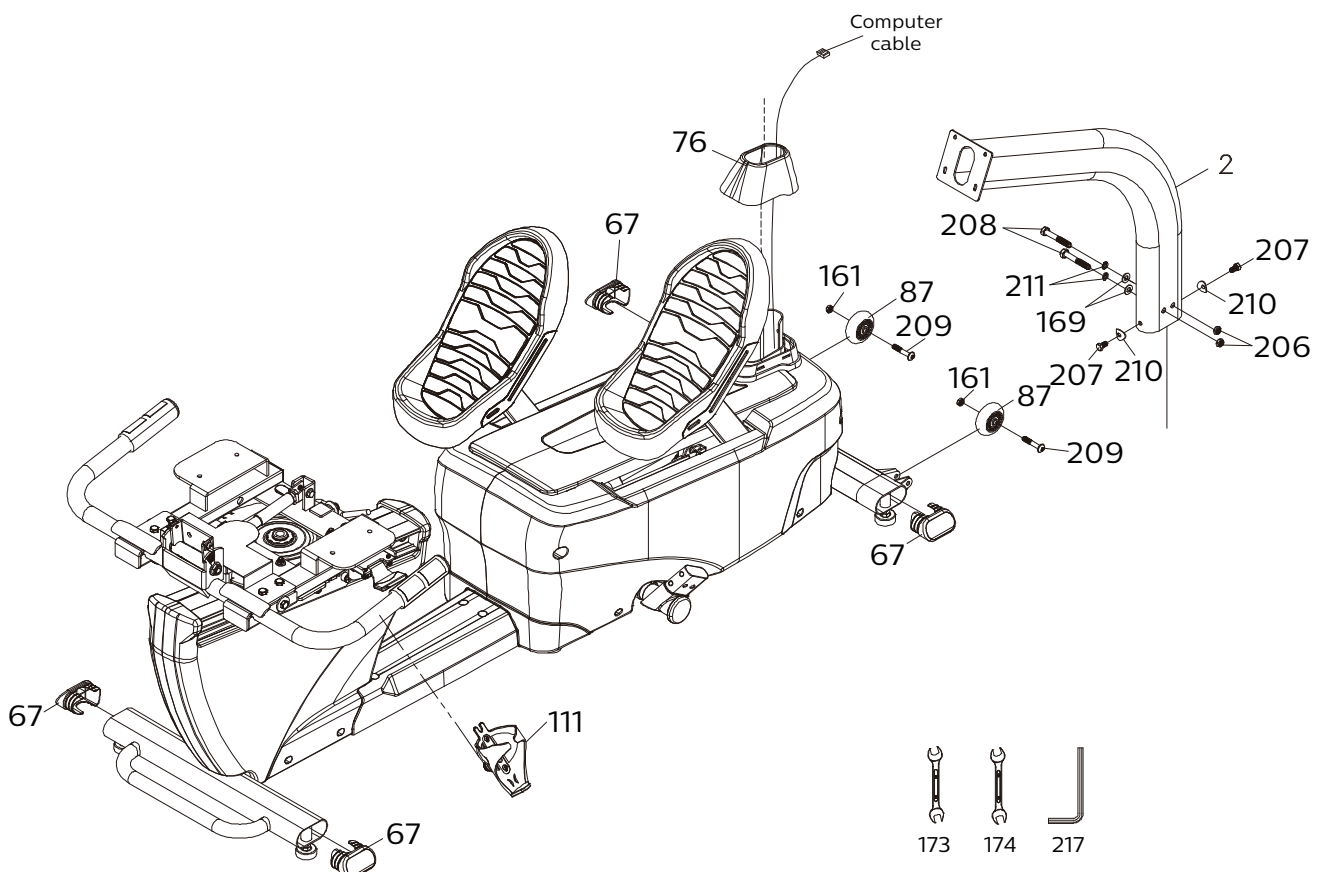


## Step 2.

- Install transportation wheels (87) with button head bolts (209) and nyloc nuts (161).
- Place the console mast (2) through the console mast cover (76) with the correct orientation. Snake the console cables through the bottom end of the console mast and out through the top.
- Insert the mast on the main frame and use hex head bolts (208) with split washers (211), flat washers (169) and nyloc nuts (206) to secure on the side. Then use hex head bolts (207) and curved washers (210) to secure at the front and back of the mast.
- Plug in the end caps (67) on oval stabilizer tubes.
- Install water bottle cage (111).

Hardware for step 2

Part	Type	Description	Qty
209	Button head bolt	5/16" x 1-3/4"	2
207	Hex head bolt	M8 x 16	2
208	Hex head bolt	3/8" x 2-1/2"	2
169	Flat washer	3/8"	2
210	Curved washer	Ø8	2
206	Nyloc nut	3/8"	2
161	Nyloc nut	5/16"	2
211	Split washer	Ø10	2

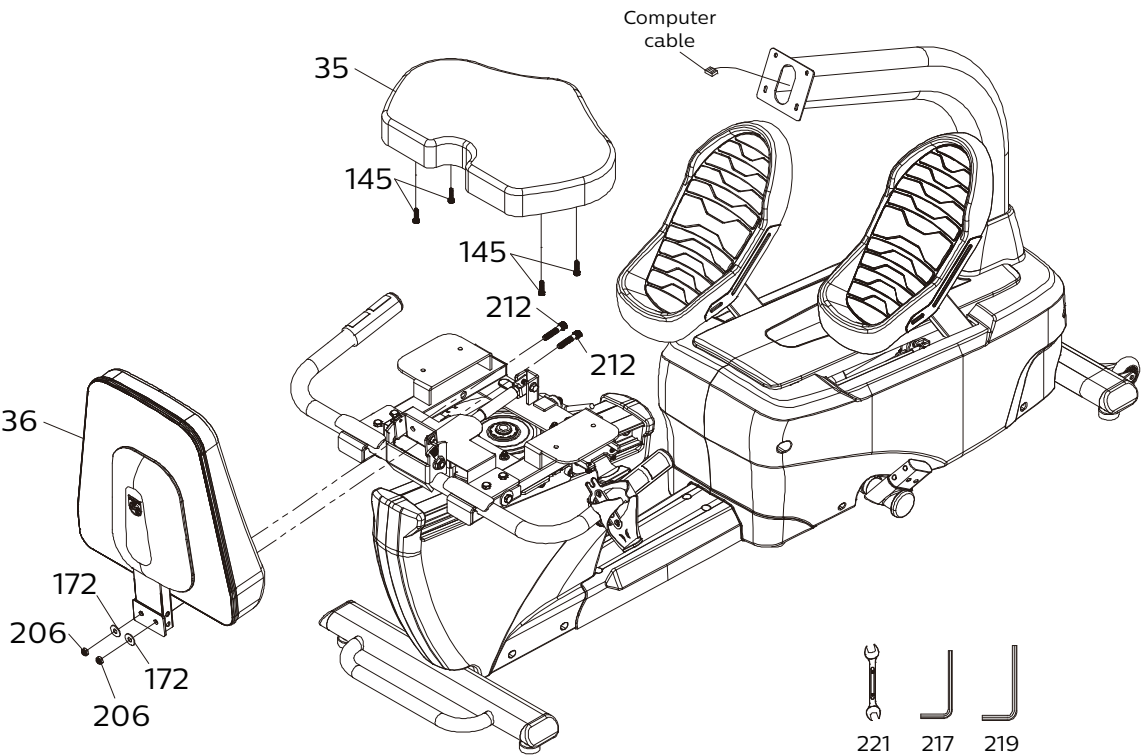


**Step 3.**

- Put the seat cushion on the seat carriage and secure with hex head bolts (145).
- Insert the seat back in the seat carriage and secure with hex head bolts (212), flat washers (172) and nyloc nuts (206).

Hardware for step 3

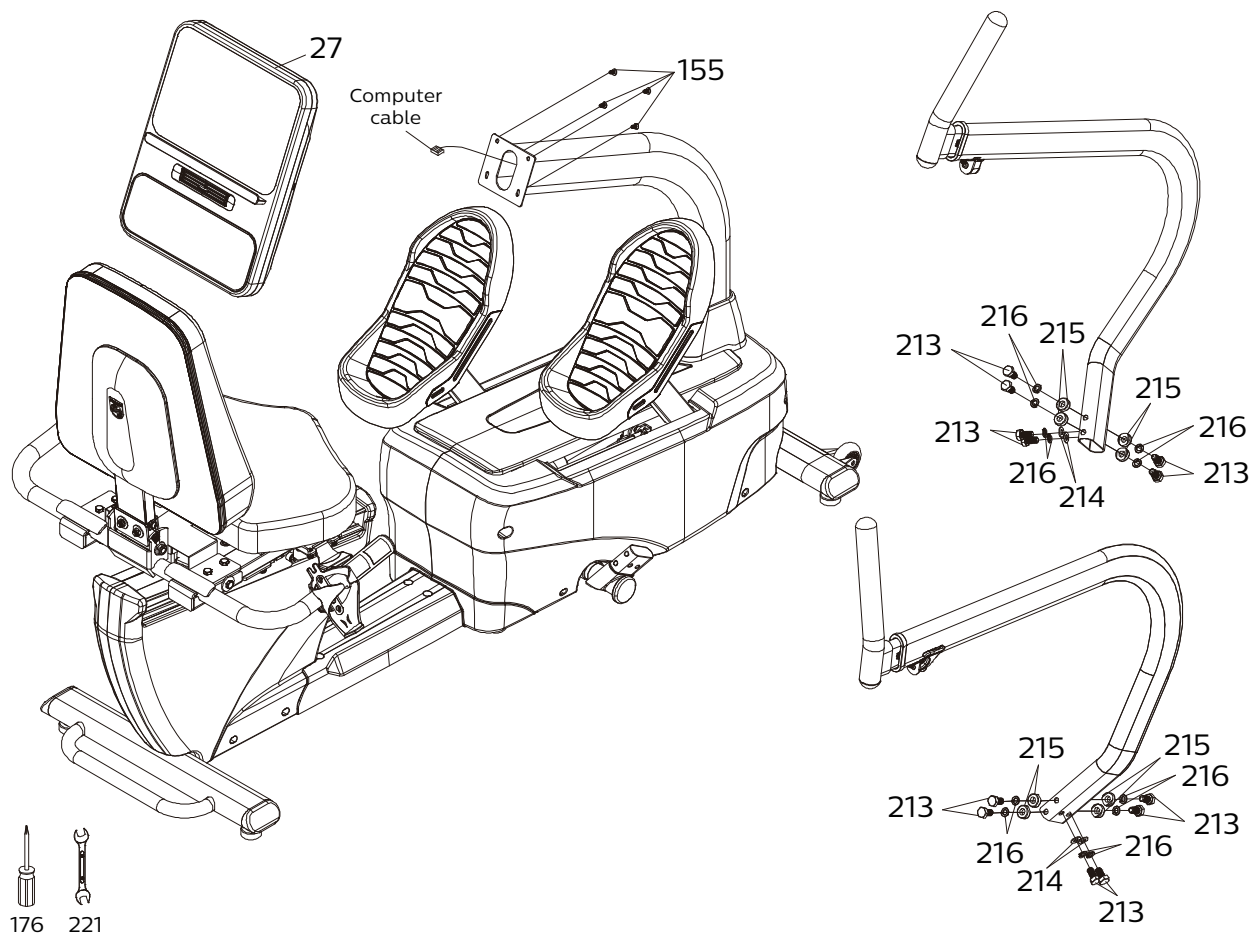
Part	Type	Description	Qty
145	Hex head bolt	M6	4
172	Flat washer	3/8"	2
206	Nyloc nut	3/8" x 7	2
212	Hex head bolt	3/8" x 1-3/4"	2



**Step 4.**

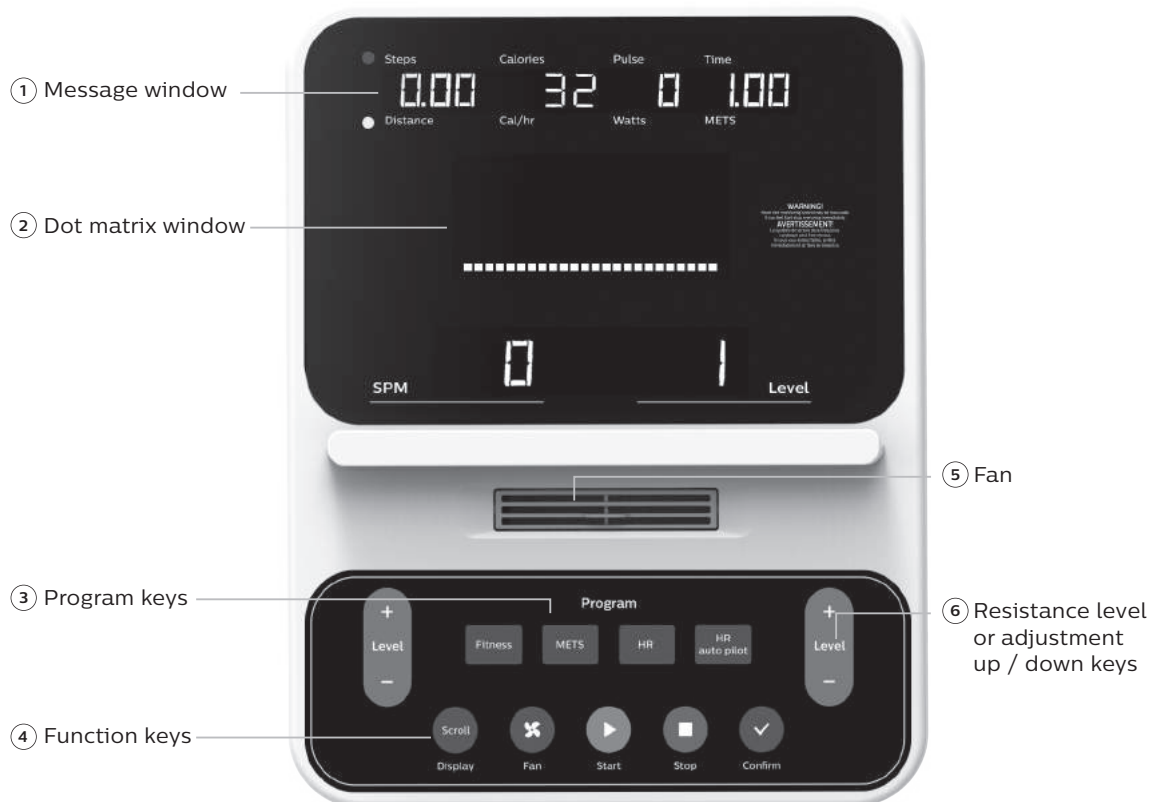
- Connect the cables from the mast to the console (27) and use phillips head screws (155) to secure it.
- To install left and right swing arms use hex head bolts (213), flat washers (214), split washers (216) and curved washers (215).

Hardware for step 4			
Part	Type	Description	Qty
155	Phillips head screw	M5 x 12	4
213	Button head bolt	3/8" x 3/4"	12
214	Flat washer	3/8" x 19 x 1.5	4
215	Curved washer	10 x 21.3 x 7.8	8
216	Split washer	Ø10	12



# Console operation

## 4.0 S console



## Power on

The 4.0 S has a built in generator for power, but can be plugged into an outlet for very low speed operation is required. When the 4.0 S is pedaled, or the DC power cord is connected to the equipment, the console will automatically power up.

The console will go to the start up display, also known as Idle mode. The message window will be scrolling the start up message. You may now begin to use the 4.0 S.

## **CSAFE feature**

Your console is equipped with a CSAFE feature. The power (POWER) port can be used for powering a remote controlled audio-visual system by connecting a cable from the remote to the power port at the back of the console. The Communication port (COMM) can be used to interact with software applications.

## **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, all workout data will start to accrue and the workload may be adjusted manually by pressing the plus and minus keys. As you increase the workload more rows will light indicating a harder workout. The stepper 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 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 higher performance training.

## **Basic information**

When you begin a program the dot matrix will display the workout Profile.

The message window will initially be displaying distance, calories, pulse and time information. On the bottom left of the key pad is a key labeled display. Each time this display key is pressed the next set of information will appear. If the display key is pressed during the second set of information display the scan mode will come on and the message window will show each set of data for four seconds then switch to the next set of data in a continuous loop. Pressing the display key again will bring you back to the first set of information as beginning.

The product has a built in heart rate monitoring system. Simply grasping the hand pulse sensors, or wearing a heart rate chest belt transmitter will start the heart rate detection, the message window will display your heart rate, or pulse, in beats per minute (this may take a few seconds). Note: You must enter your correct age during program setup for heart rate control program to be accurate. Refer to using a heart rate transmitter section for details about these features and how they can help you work out more efficiently.

The stop key actually has several functions. Pressing the stop key once during a program will Pause the program for 5 minutes (when you stop pedaling without ac power the display will turn off but the memory will be saved for 5 minutes just like the pause mode). 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 or start pedaling. If the stop key is pressed twice during a workout the program will end and a summary of information of the exercise session will be displayed, and then the console will return to the start up screen. If the stop key is held down for 3 seconds the console will perform a complete reset. During data entry for a program the stop key performs a previous screen function. This allows you to go back one step in the programming each time you press the stop key.



The program keys may be used to preview each program when in the idle mode. 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 confirm key to select the program and enter into the data-setup mode.

The console includes a built-in fan to help keep you cool.

### **Programmable features**

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 ensures that the heart rate window shows the correct number. Your age is also necessary during the heart rate control program 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 facility 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 confirm key) you have the option of modifying the settings. If you want to begin without entering new settings just press the start key. This will bypass the programming of data and take you directly to the start of the program. If you want to change the settings just follow the instructions in the message window. If you start a program without changing the settings the default or pre-saved setting will be used.

## **Manual**

The manual program works as the name implies, manually. This means that you control the workload yourself, not the computer. To start the manual program follow the instructions below or just press the manual key then the confirm key and follow the directions in the message window.

- Press the fitness key and select the manual program then press the confirm key.
- The message window will ask you to enter your age. You may enter your age, using the plus and minus keys, then press the confirm button to accept the new number and proceed on to the next screen.
- You are now asked to enter your weight. You may adjust the weight number using the plus and minus keys, then press confirm to continue.
- The next setting is time. You may adjust the time and press confirm key to continue.
- 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 confirm key.

Note: at any time during the editing of data you can press the stop key to go back one level, or screen.

- The program automatically starts you 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 plus key; the minus key will decrease the workload.
- During the manual program you will be able to scroll through the data in the message window by pressing the display key.
- When the program ends you may press start to begin the same program again or stop to exit the program.

## **Preset programs**

The stepper has three different programs that have been designed for a variety of workout goals. These programs factory preset work level profiles for achieving different goals. The initial built-in level of difficulty for each program is set to a relatively easy level. You may adjust the level of difficulty (max level) for each program before beginning.

## **Programming preset programs**

- Select the desired program by pressing fitness key then press confirm key.
- The message window will ask you to enter your age. You may adjust the age setting, using the plus and minus keys, then press confirm key to accept the new number and proceed on to the next screen.
- You are now asked to enter your weight. You may adjust the weight number using the plus and minus keys, then press confirm to continue.
- Next is time. You may adjust the time and press confirm to continue.
- Now you are asked to adjust the max level. This is the peak exertion level you will experience during the program (at the top of the hill). Adjust the level and then press confirm.
- 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 stop key to go back one level, or screen.
- If you want to increase or decrease the workload at any time during the program press the plus and minus key. This will change the workload 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 will look distorted and not a true representation of the actual profile. When you make a change to the workload, the message window will show the current column, and program maximum, levels of work.
- During the program you will be able to scroll through the data in the message window by pressing the display key.
- When the program ends the message window 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.

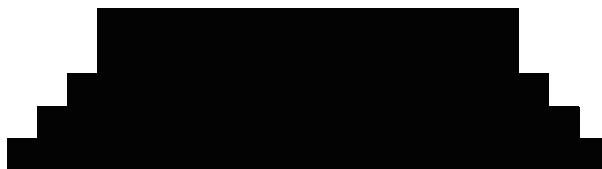
## Hill

The Hill program simulates going up and down a hill. The resistance in the pedals will steadily increase and then decrease during the program.



## Plateau

The Plateau program provides a steady state exercise with warm up and cool down periods.



## Interval

The Interval program takes you through high levels of intensity followed by periods of low intensity. This program increases your endurance by depleting your oxygen level followed by periods of recovery to replenish oxygen. Your cardio vascular system gets programmed to use oxygen more efficiently this way.



## Custom program

The custom program allows you to build and save a custom program. You can build your own custom program by following the instructions below. The custom program allows you to further personalize it by adding your facility name.

- Designing and saving a new program as a custom program. The message window will show a welcome message; if you had previously saved a program the message will contain the name you gave it. Then press the Enter key to begin programming.
  - When you press confirm, the message window will show “name – a”, if there is no name saved. If the name “custom workout” had been previously saved the message window will show “name – custom workout” and the c in custom will be blinking. If there is a name saved you can change it or you may press the stop key to keep the name and continue to the next step. If you want to enter a name use the plus and/or the minus key to change the first letter then press confirm to save the first letter and continue to the next letter. When you have finished entering the name press the stop key to save the name and continue to the next step.
  - The message window will ask you to enter an age. You may enter an age, using the plus and minus keys, then press the confirm key to accept the new number and proceed on to the next screen.
  - You are now asked to enter a weight. You may adjust the weight number using the plus and minus keys and then press confirm to continue.
  - Next is time. You may adjust the time and press confirm to continue.
  - Now you are asked to adjust the max level. This is the peak exertion level you will experience during the program. Adjust the level and then press confirm.

- Now the first column will be blinking and you are asked to adjust the level for the first segment of the workout. When you finish adjusting the first segment, or if you don't want to change, then press confirm to continue to the next segment.
- The next segment will show the same level as the previously adjusted segment. Repeat the same process as the last segment then press confirm. Continue this process until all twenty four segments have been set.
- The message window will then tell you to press confirm to save the program. After saving the program the message window says "new program saved" then will give you the option to start or modify the program. Pressing stop will exit to the start up screen.
- During the custom program you will be able to scroll through the data in the message window by pressing the display key.
- Use the heart rate monitoring features and can switch to heart rate auto-pilot mode (see hr auto pilot section for details of this feature).
- Running a saved program – Enter the custom program then press confirm key.
  - Enter time and press confirm. Then press start to begin program.

## **METs program**

METs stands for metabolic equivalent, which is one way that exercise physiologists estimate how many calories are burned during physical activity.

1 MET is essentially the amount of energy produced relative to body mass whilst at rest. As you sit here now reading you are expending 1 MET of energy.

Using 1 MET as the reference value, light activities burn up to 3 times as many calories as rest, moderate activities burn 3-6 times as many and vigorous exercise more than 6 times as much energy as rest.

## **METs programming**

- Press the METs key and then press confirm.
- The message window will prompt you to enter your age. Use the plus and minus keys to change and press the confirm key to continue.
- You are now prompted to enter your weight. You may adjust the age using the plus and minus key then press confirm key to continue.
- You are now prompted to enter your workout time. You may adjust the time using the plus and minus key then press confirm to continue.
- You are now prompted to enter your target METs. You may adjust the target METs using the plus and minus keys then press confirm to continue.
- Now press start to begin the program.

## Metabolic rate activity chart

Physical activity	MET
<b>Light intensity activities</b>	<b>&lt;3</b>
sleeping	0.9
watching television	1.0
writing, desk work, typing	1.5
walking, 1.7mph (2.7 km/h), level ground, strolling, very slow	2.3
walking 2.5 mph (4 km/h)	2.9
<b>Moderate intensity activities</b>	<b>3 to 6</b>
bicycling, stationary, 50 watts, very light effort	3.0
walking 3.0 mph (4.8 km/h)	3.3
calisthenics, home exercise, light or moderate effort, general	3.5
walking 3.4 mph (5.5 km/h)	3.6
bicycling, <10 mph (16 km/h), leisure, to work or for pleasure	4.0
bicycling, stationary, 100 watts, light effort	5.5
sexual activity	5.8
<b>Vigorous intensity activities</b>	<b>&gt; 6</b>
jogging, general	7.0
calisthenics (e.g. pushups, situps, pullups, jumping jacks), heavy, Vigorous effort	8.0
running jogging, in place	8.0
jogging, 5.6 mph (9.0 km/h)	8.8
rope jumping (66/min)	9.8
rope jumping (70/min)	10.0
rope jumping (84/min)	10.5
rope jumping (100/min)	11.0
jogging, 6.8 mph (11.0 km/h)	11.2



## Heart rate program

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 of your MHR. Your Heart rate training zone is 50% to 90% of your maximum heart rate. 60% of your MHR is the recommended for burning fat while 80% is recommended for strengthening the cardio vascular system. This 60% to 80% is the zone to stay in for maximum benefit.

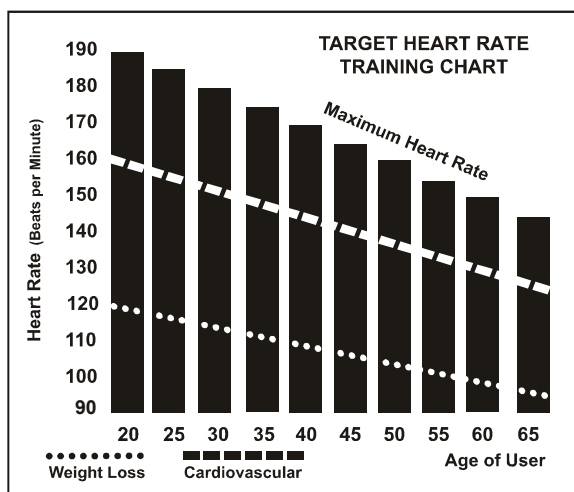
For someone who is 40 years old their target heart rate zone is calculated:

$220 - 40 = 180$  (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 programs. After calculating your MHR 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 MHR 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 MHR on a schedule approved by your physician. Consult your physician before participating in any exercise program.

With all Heart Rate programs you may use the heart rate monitor feature without using the Heart Rate program. This function can be used during manual mode or during any other different programs. The heart rate 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 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	Maxi

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 upon 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.

## Heart rate program programing

To start the HR program follow the instructions below and follow the directions in the message window.

- Press the HR key to select the HR program (TA HR 65% / TA HR 80% / HR interval) and then press the confirm key to enter.
- The message Window will ask you to enter your age. You may enter your age, using the plus and minus key, then press the confirm key to accept the new number and proceed on to the next screen.
- You are now asked to enter your weight. You may adjust the weight number using the plus and minus keys, then press confirm to continue.
- Next is Time. You may adjust the Time and press enter to continue.
- Now you are asked to adjust the target HR. This is the 65% / 80% heart rate level you will experience during the program. Adjust the target number and then press confirm.
- 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 confirm key. NOTE: At any time during the editing of data you can press the Stop key to go back one level, or screen.
- If you want to increase or decrease the workload at any time during the program press the plus or minus keys. This will allow you to change your target heart rate at any time during the program.
- During the HR program you will be able to scroll through the data in the message window by pressing the display key.

When the program ends you may press Start to begin the same program again or Stop to exit the program.

## **Heart rate auto pilot mode**

The HR auto pilot mode only works in Fitness programs (manual / hill / plateau / interval / custom). When you are exercising in a fitness program and decide to just maintain the HR level you are at currently you can just press auto pilot and the console will automatically switch to HR control and will maintain your current HR. To start the HR auto pilot mode follow the instructions below and the directions in the message window.

- Press the HR auto pilot key during the fitness programs. It is necessary to wear HR strap to enter this mode. If a HR is not detected the message window shows NO HEART RATE.
- At the end of the HR auto pilot program a workout summary will be displayed in the message window.

# Using a heart rate transmitter

Note: The chest strap transmitter is not a standard part, but is a separate purchase. Most transmitters that operate at Bluetooth or ANT+ will also work.

## **How to wear your wireless chest strap transmitter?**

- Attach the transmitter to the elastic strap using the locking parts.
- Adjust the strap as tightly as possible as long as the strap is not too tight to remain comfortable.
- 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.
- Position the transmitter immediately below the pectoral muscles.

- Sweat is the best conductor to measure very minute heart beat electrical signals. However, plain water can also be used to pre-wet the electrodes (2 black square areas on the reverse side of the belt and either side of transmitter). It's also recommended that you wear the transmitter strap a few minutes before your work out. Some users, because of body chemistry, have a more difficult time in achieving a strong, steady signal at the beginning. After "warming up", this problem lessens. As noted, wearing clothing over the transmitter/strap doesn't affect performance.
- 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.

## **Erratic operation**

Caution! Do not use this product for heart rate control unless a steady, solid actual heart rate value is being displayed. High, wild, random numbers being displayed indicate a problem.

Areas to look at for interference, which may cause erratic heart rate

- Microwave ovens, TVs, small appliances, etc.
- Fluorescent lights.
- Some household security systems.
- Perimeter fence for a pet.
- 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 logo is right side up.
- 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.
- If there is another person wearing a chest strap within 1 meter, it will interfere.
- If you continue to experience problems contact your dealer.



# Maintenance

- Wipe down all areas in the sweat path with a damp cloth after each use to prevent rust.
- If a squeak, thump, clicking or rough feeling develops the main cause is most likely one of two reasons:
  - 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.
  - The crank arm nut and/or the pedals need to be retightened.
- If squeaks or other noises persist, check that the unit is properly leveled. There are 2 leveling pads on the front and 2 leveling pads on the back of the unit. Remove mast cover and center cover.

## **Step rail and carriage maintenance**

Dirt and dust can accumulate on the pedal carriage components causing a rough feel which means the rails and wheels most likely need cleaning.

- Remove mast cover and center cover.
- Firmly press in at the bottom of the small mast cover at the front and rear and pull up
  - Firmly press in at the top of the main cover near the top and pull up on the center cover. Repeat this process at all four corners of the cover.
  - Slide the mast and center covers up the mast tube. Tie a rag around the tube and let the covers rest on it so they stay in place.
- Move the pedals so one is all the way forward. Clean the wheels and rails using a rag and alcohol.
- Replace the covers when done.

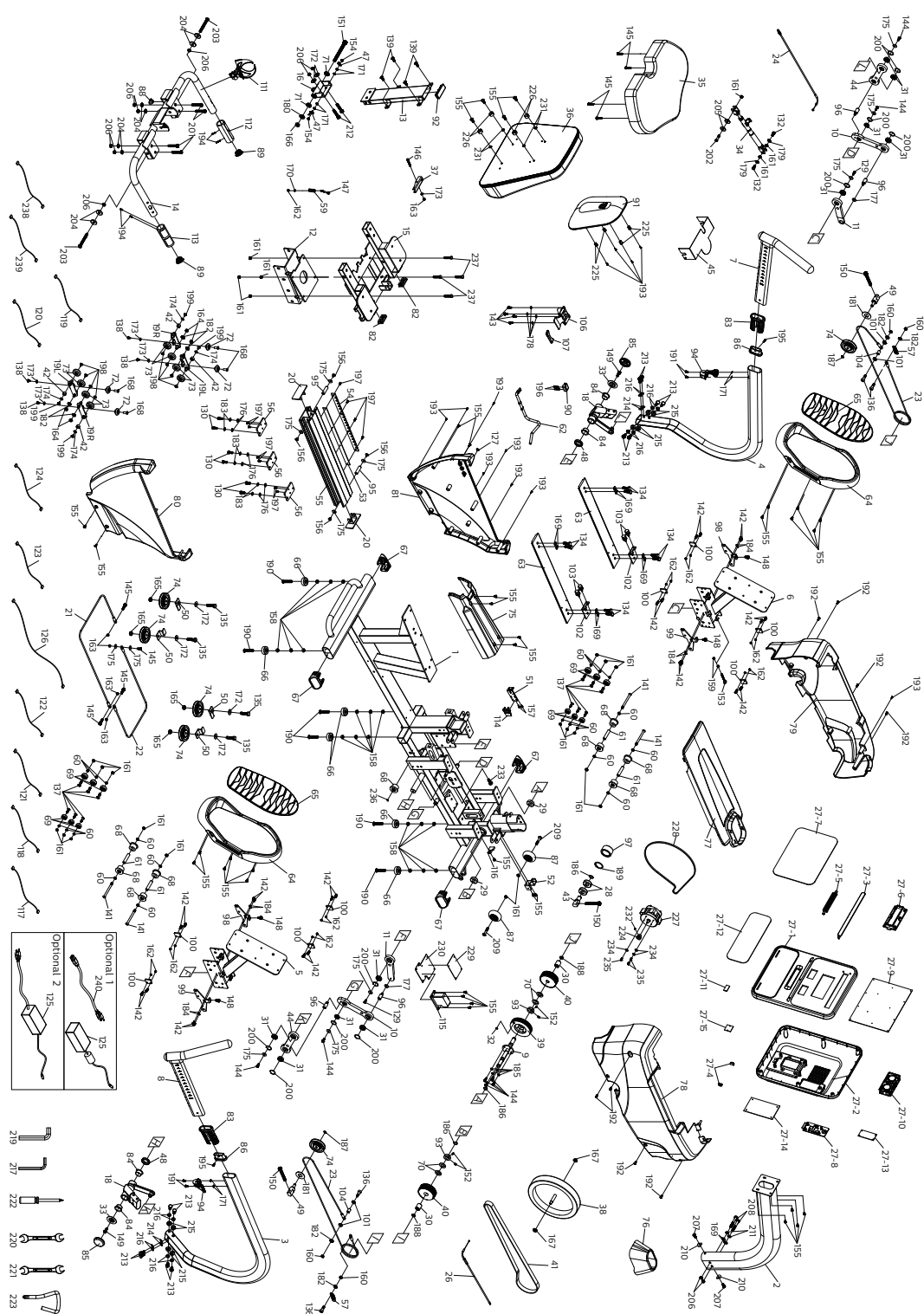
## Maintenance mode in console software

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 maintenance mode press and hold down the start, stop and confirm key. Keep holding the keys down for about 2 seconds and the message window will display “maintenance mode”. Press the confirm key to access the menu below:

- Key test
  - Will allow you to test all the keys to make sure they are functioning. Press all the keys one at a time.
- Display test
  - Tests all the display functions by lighting each LED light sequentially.
- Functions (press confirm key to access menu)
  - Units
    - ① Set to English (imperial units) or metric display readings. The default is imperial, which means data such as bodyweight and height will be in pounds and inches.
  - Pause mode
    - ① Turn on allow 5 minutes of pause, turn off to have the console pause indefinitely.
  - Odometer reset
    - ① Resets the odometer to zero (Time and distance)
  - Beep sound
    - ① Turn on or off the speaker to silence beeping sound.
  - LED brightness
    - ① Adjust the LED brightness.

- Service
  - Motor test
    - ① Select the motor test by MANUAL or AUTO to test the functions.
  - SENSOR test
    - ① Test the sensor functions.
  - CSAFE test
    - ① Test the CSAFE functions.
- ANT ID
  - Adjust the ANT ID.
- Update code
  - Switch bootloader on/off. The default is off.
- Exit
  - Press confirm key to leave maintenance mode and restart.

## Exploded view drawing



## 4.0 S parts list

Item	Description	Qty
1	Main frame	1
2	Console mast	1
3	Swing arm (r)	1
4	Swing arm (l)	1
5	Pedal plate (r)	1
6	Pedal plate (l)	1
7	Handle slider (l)	1
8	Handle slider (r)	1
9	Drive pulley	1
10	Lower linkage a	2
11	lower linkage b	2
12	seat carriage	1
13	Seat back bracket	1
14	Handle bar	1
15	Rotate seat assembly	1
16	Seat back bracket	1
18	Swing arm drive weldment	2
19L	Seat wheel adjustment plate(l)	2
19R	Seat wheel adjustment plate(r)	2
20	Seat stop assembly	2
21	Front connecting cable (750l)	1
22	rear connecting cable (800l)	1
23	drive cable (1820l)	2
24	steel cable	1
26	Drive cable (55l)	1
27	console assembly	1
27~1	Console top cover	1
27~2	Console bottom cover	1
27~3	Book rack	1
27~4	Fan grill anchor	2
27~5	Deflector fan grill	1
27~6	Wind duct	1
27~7	Faceplate label	1

Item	Description	Qty
27~8	End cap	1
27~9	Console display board	1
27~10	Fan assembly	1
27~11	Bluetooth	1
27~12	Resistance button w/cable	1
27~13	Interface board	1
27~14	Csafe w/board	1
27~15	Interface board	1
28	6203_ball bearing	2
29	6003_ball bearing	2
30	One way bearing	2
31	6902_ball bearing	10
32	Magnet	1
33	Ø9 × Ø49 × 1.5t_cup washers	2
34	Locking gas cylinder	1
35	Seat cushion	1
36	Seat back	1
37	Seat position latch	1
38	Fly wheel	1
39	Ø106 × 22L_drive wheel	1
40	Ø84 × 32L_cable drive pulley	2
41	Belt (8pj), 1321mm	1
42	Ø5/8" × 13.2 × 8L_sleeve	4
43	Adjustable idler wheel axle	1
44	Lower linkage	2
45	Safety cover	1
47	Scale arrowhead	2
48	Flywheel axle set collar (r)	2
49	Cable guide wheel axle	2
50	Shroud bracket	4
51	Sensor bracket	1
52	Shroud fixing plate	1
53	Seat track fixing plate	1

Item	Description	Qty
54	Rack, seat position	1
55	Aluminum track	1
56	Backing plate	3
57	Ø15.5 × 26.5l_spring	2
59	Ø13.5 × 30l_spring	1
60	Metal sleeve(Ø8.2×Ø12.7x5lmm)	20
61	metal sleeve(Ø8.1×Ø12×56.2lmm)	4
62	Ø10 × 386l_seat front/aft adjustment lever	1
63	Aluminum track	2
64	Pedal	2
65	Pedal foam cushion	2
66	Leveling foot	6
67	End cap, oval stabilizer tube	4
68	Transportation wheel, aluminum axle	9
69	Transportation wheel	12
70	Ø18 × Ø32 × 15t_high-performance polymer washer	4
71	Podwer metallurgy sleeve	2
72	Pu wheel	4
73	Ø38_seat track wheel	8
74	Roller	6
75	Bottom step cover	1
76	Console mast cover	1
77	Top cover	1
78	Shroud ( r )	1
79	Shroud ( l )	1
80	Rear shroud ( r )	1
81	Rear shroud ( l )	1
82	Slider sleeve	2
83	Hollow plug(30×70×98.5l)	2
84	WFM-2528-16_plastic bushing	4
85	End cap	2
86	Slide end cap spacer	2
87	Ø65_transportation wheel	2

Item	Description	Qty
88	Ø7_hgp wire grommet	1
89	Button head plug	2
90	Lever anchor	1
91	Seat back cover	1
92	Square end cap	1
93	Main frame housing	2
94	Quick release	2
95	Seat stop axle	2
96	Axle	4
97	Ø52 × Ø40 × 28l_bearing	1
98	Adjusting plate (l)	2
99	Adjusting plate (r)	2
100	Plastic flaps	8
101	Ø25 × Ø10 × 3t_nylon washera	4
102	Cushion fixing plate	2
103	Rubber foot	4
104	Podwer metallurgy sleeve	2
106	Release lever	1
107	Nylon handgrip	1
111	Drink bottle holder	1
112	750m/m_hand pulse w/cable assembly( l)	1
113	900m/m_hand pulse w/cable assembly(r)	1
114	Optical sensor board	1
115	Gear motor	1
116	450m/m_sensor w/cable	1
117	350m/m_conneting wire (smp)	1
118	350m/m_encoder cable (xhp)	1
119	300m/m_handpulse wire	1
120	300m/m_handpulse wire(white)	1
121	100m/m_dc power cord	1
122	1700m/m_computer cable	1
123	550m/m_handpulse wire	1
124	550m/m_handpulse wire(white)	1



Item	Description	Qty
125	Power adapter, 12vdc	1
126	2900m/m_hand pulse cable, lower	1
127	Block	1
129	M6 × 15m/m_hex head bolt	2
130	5/16" × unc18 × 3/4"_hex head bolt	6
132	5/16" × unc18 × 5/8"_hex head bolt	2
133	3/8" × 19m/m_hex head bolt	8
134	3/8" × 1-1/4"_hex head bolt	8
135	M10 × 40m/m_hex head bolt	4
136	M8 × p1.25_bolt	4
137	5/16" × unc18 × 1"_button head socket bolt	12
138	M6 × 10m/m_button head socket bolt	4
139	M8 × 20m/m_button head socket bolt	4
141	5/16" × unc18 × 95m/m_button head socket bolt	4
142	M5 × p0.8 × 15m/m_socket head cap bolt	24
143	M6 × p1.0 × 12m/m_socket head cap bolt	4
144	M6 × p1.0 × 15m/m_socket head cap bolt	8
145	M6 × 25m/m_socket head cap bolt	8
146	M6 × 38m/m_socket head cap bolt	1
147	M5 × p0.8 × 45m/m_socket head cap bolt	1
148	M8 × p1.25 × 12m/m_socket head cap bolt	4
149	M8 × p1.25 × 20m/m_socket head cap bolt	2
150	M10 × p1.5 × 75m/m_socket head cap bolt	3
151	M12 × p1.75 × 120m/m_socket head cap bolt	1
152	M5 × p0.8 × 10m/m_slotted set screw	4
153	M6 × 57m/m_eye bolt	1
154	M5 × 6m/m_phillips head screw	2
155	M5 × 12m/m_phillips head screw	35
156	M6 × 10m/m_phillips head screw	4
157	M4 × p0.7 × 10m/m_phillips head screw	2
158	3/8" × 7t_luck nut	18
159	M6 × p1.0 × 5t_luck nut	2
160	M8 × 6t_luck nut	4

Item	Description	Qty
161	5/16" × 6t_nyloc nut	25
162	M5 × 5t_nyloc nut	17
163	M6 × 6t_nyloc nut	5
164	M8 × 7t_nyloc nut	4
165	M10 × 8t_nyloc nut	4
166	M12_nyloc nut	1
167	M10 × p1.5 × 8t_nut	2
168	M6 × 19l_nut	4
169	Ø3/8" × Ø19 × 1.5t_flat washer	10
170	Ø5 × Ø10 × 1t_flat washer	1
171	Ø5 × Ø12 × 1t_flat washer	8
172	Ø3/8" × Ø25 × 2t_flat washer	6
173	Ø1/4" × 13 × 1t_flat washer	5
174	Ø1/4" × Ø16 × 1t_flat washer	4
175	Ø6 × Ø19 × 3t_flat washer	12
176	Ø5/16" × 16 × 1.5t_flat washer	6
177	Ø3/8" × 20 × 3t_flat washer	2
178	Ø6.6 × Ø12 × 1.5t_flat washer	4
179	Ø8.5 × Ø18 × 1.5t_flat washer	2
180	Ø1/2" × Ø26 × 2.0t_flat washer	1
181	Ø45 × Ø21.8 × 2.5t_flat washer	2
182	Ø8 × Ø18 × 3t_knurled lock washer	8
183	Ø8 × 1.5t_spring washer	6
184	Ø5 × 1.5t_spring washer	8
185	M6 × 1t_spring washer	4
186	Ø17_c ring	3
187	Ø10_c ring	2
188	Ø16_c ring	2
189	Ø40_c ring	1
190	3/8" × 2" _flat head socket bolt	6
191	M5 × 6m/m_phillips head screw	4
192	M5 × p0.8 × 12l_phillips head screw	8
193	3.5 × 12m/m_sheet metal screw	12

Item	Description	Qty
194	3 × 20m/m_tapping screw	4
195	Ø5 × 16L_tapping screw	2
196	M5 × 25m/m_tapping screw	2
197	M5 × 12m/m_tapping screw	10
198	M5 × p0.8 × 10L_flat phillips head screw	8
199	M6 × p1.0 × 10L_flat phillips head screw	4
200	Ø28_wire clamp	10
201	3/8" × 2"_hex head bolt	4
202	5/16" × unc18 × 1-1/4"_hex head bolt	1
203	3/8" × unc16 × 3-1/4"_hex head bolt	2
204	Ø3/8" × Ø30 × 3t_flat washer	8
205	Ø8.5 × Ø26 × 2t_flat washer	2
206	3/8" × 7t_nyloc nut	10
207	M8 × p1.25 × 16L_hex head bolt	2
208	3/8" × unc16 × 2-1/2"_hex head bolt	2
209	5/16" × unc18 × 1-3/4"_button head socket bolt	2
210	Ø8 × 23 × 1.5t_curved washer	2
211	Ø10 × 2t_spring washer	2
212	3/8" × unc16 × 1-3/4"_socket head cap bolt	2
213	3/8" × 3/4"_hex head bolt	12
214	Ø3/8" × Ø19 × 1.5t_flat washer	4
215	Ø10 × 21.3 × 7.8t_curved washer	8
216	Ø10 × 2t_spring washer	12
217	L allen wrench(5×26×120l)	1
219	m8_allen wrench	1
220	12/14m/m_wrench	1
221	13/14m/m_wrench	1
222	Phillips head screw driver	1
223	Short phillips head screw driver	1
224	Flywheel pulley	1
225	Buckle	4
226	Snap seat	4
227	Erator/brake controller	1

Item	Description	Qty
228	Belt	1
229	Generator/brake controller	1
230	Holder clamp	1
231	Ø5.5 × Ø15 × 1t_flat washer	4
232	M5 × 5l_slotted set screw	1
233	5/16 × unf24 × 19l_hex head bolt	1
234	Ø4 × 14 × 1t_flat washer	3
235	M4 × p0.7 × 10l_socket head cap bolt	3
236	Ø8_c ring	1
237	5/16" × unc18 × 1-1/2"_hex head bolt	4
238	150m/m_connecting cable	1
239	300m/m_generator connecting cable	1
240	Transformer power cord	1

## Product warranty

Dyaco Commercial & Medical North America LLC (hereinafter “Dyaco”), the manufacturer of the Philips Commercial Series Physical Therapy Products (hereinafter “Products”) warrants all of the Products and their components listed below for the periods of time set out on this page below from the date of sale, as determined by sale receipt, or in the absence of a sales receipt, eighteen (18) months from the original factory shipping date. During the applicable warranty periods, Dyaco’s responsibilities under these warranties include providing, at no charge, new or remanufactured parts, as determined by Dyaco at its sole and absolute discretion, and covering the cost of labor deemed necessary by Dyaco, at its sole and absolute discretion, to remedy faults giving rise to applicable warranty claims. The warranty periods set out below are subject to the performance of proper care and maintenance, as set out in this user manual, by the original purchaser of the equipment. Warranties are not transferable.

<b>Warranty</b>	<b>Frame</b>	<b>Magnetic resistance system</b>
Commercial	Lifetime	5 years
Residential	Lifetime	5 years

<b>Parts</b>	<b>Labor</b>	<b>Wear items</b>
5 years	2 years	6 months
3 years	2 years	6 months

\* Wear items are rubber hand grips, pedals, console overlay and drive belt

## Normal responsibilities of the facility

The facility is responsible for the items listed below

- The warranty registration must be completed online to validate the manufacturer’s limited warranty.
- Proper use of the fitness equipment in accordance with the instructions provided in this manual.
- Proper installation in accordance with instructions provided with the fitness equipment and with all local electric codes.

- Proper connection to a grounded power supply of sufficient voltage, replacement of blown fuses, repair of loose connections or defects in house or facility wiring.
- Expenses for making the fitness equipment accessible for servicing, including any item that was not part of the fitness equipment at the time it was shipped from the factory.
- Damages to the fitness equipment finish during shipping, installation or following installation.
- Routine maintenance of this unit as specified in this manual.

## **Exclusions**

This warranty does not cover the following:

- 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 states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation or exclusion may not apply to you.
- 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, or units not requiring component replacement.
- Damages caused by services performed by persons other than authorized Dyaco service companies, use of parts other than original Dyaco parts, or external causes such as alterations, modifications, abuse, misuse, accident, improper maintenance, inadequate power supply.
- Products with original serial numbers that have been removed or altered.
- Products that have been; sold, transferred, bartered, or given to a third party.
- Products that are used as store display models.
- Products that do not have a warranty registration on file at Dyaco. Dyaco reserves the right to request proof of purchase if no warranty record exists for the product.

- Manufacturer, distributor, or the Licensor shall not be responsible or liable of any direct, indirect, general, special, punitive, incidental or consequential damages; loss of or damage to property; claims of third parties; loss of life; personal injury (including further injury, or re-injury), and any other losses or damages of any kind or character, arising out of or in connection with the use of Biophysical Agents by the facilities or clinicians. The facilities or clinicians that select, prescribe, and implement the use of Biophysical Agents will assume the related responsibility.
- Definitions of “ Biophysical agents ” : Biophysical agents are a broad group of agents that use various forms of energy and are intended to assist muscle force generation and contraction; decrease unwanted muscular activity; maintain strength after injury or surgery; modulate or decrease pain; reduce or eliminate edema; improve circulation; decrease inflammation, connective tissue extensibility, or restriction associated with musculoskeletal injury or circulatory dysfunction; increase joint mobility, muscle performance, and neuromuscular performance.
- Physical therapists select, prescribe, and implement the use of biophysical agents when the examination findings, diagnosis, and prognosis indicate the use of these agents to reduce risk factors and complications; enhance health, wellness, or fitness; enhance or maintain physical performance; or prevent or remediate impairments in body functions and structures, activity limitations, or participation restrictions. The use of biophysical agents in the absence of other interventions should not be considered to be physical therapy unless there is documentation that justifies the necessity of their exclusive use.
- Use of the products in any way other than described within products’ operation manual, either intentionally or by error.
- Damages due to improper storage or transport or other causes not solely attributable to Manufacturer.
- The exact amount of indemnification or cost arising out of breach of this written or any implied warranty shall be fairly negotiated by both you and Manufacturer.
- 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.

## **Service**

Keep your bill of sale. Twenty four (24) months from the date on the bill of sale or eighteen (18) months from the date of factory shipping as determined by the serial number establishes the 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. You may also have other rights that vary from state to state. Service under this warranty must be obtained by following these steps, in order:

- Contact your selling authorized Dyaco dealer. OR
- Contact your local authorized Dyaco service organization.
- If there is a question as to where to obtain service, contact our service department at 1-866-869-4409.
- Dyaco's obligation under this warranty is limited to repairing or replacing, at Dyaco's option, the product through one of our authorized service centers. All repairs must be preauthorized by Dyaco. If the product is shipped to a service center freight charges to and from the service center will be the customer's responsibility.
- The owner is responsible for adequate packaging upon return to Dyaco. Dyaco is not responsible for damages in 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.
- For any further information, or to contact our service department by email, or phone call, and also please refer to website for additional information:
  - Consumer care service email address: [philipssupport@dcmna.com](mailto:philipssupport@dcmna.com)
  - Consumer care service phone number: 1-886-869-4409

Product features or specifications as described or illustrated are subject to change without notice. All warranties are made by Dyaco Commercial & Medical North America LLC. This warranty applies only in the 48 contiguous United States.



