



Cybex Arc Trainer® 620A/629A
Owner's Manual
Cardiovascular Systems
Part Number 5620A-4 H



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About This Manual

An Owner's Manual is shipped with each unit. To purchase additional copies of this manual or any other Cybex manual, please do one of the following:

- fax orders to 508-533-5183 or contact Cybex Customer Service at 888-462-9239
- or contact Cybex Customer Service at 508-533-4300

Find information on the web at www.cybexinternational.com or by e-mail at techhelp@cybexintl.com.

FCC Compliance Information

! WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception (which can be determined by turning the equipment off and on) the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.

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1 - Safety

IMPORTANT: Read all instructions and warnings before using the unit.

Important Voltage Information

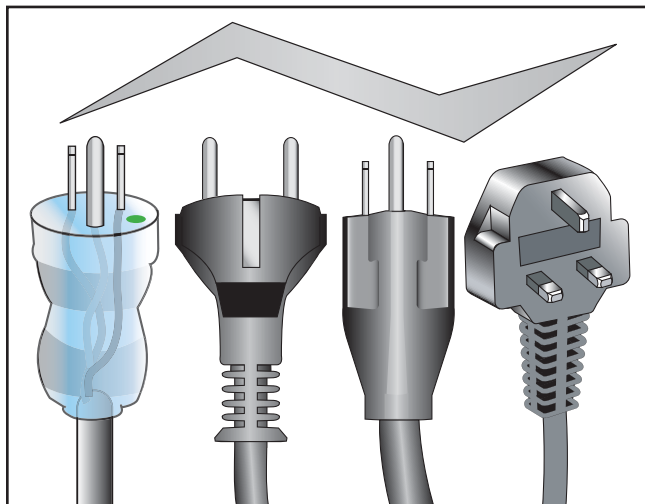
NOTE: The power cord is available with the optional AC power kit.

! WARNING: Do not plug unit into wall outlet without an approved medical power cord.

Before plugging the power cord into an electrical outlet, verify that the voltage requirements for your area match the voltage of the unit that you have received.

Grounding Instructions

This unit must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment-grounding conductor and a 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.



AW-19522	EW600005	AW-19587	AW-19521
115 VAC	220 VAC	100 VAC	230 VAC

! DANGER: Improper connection of the equipment grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service provider if you are in doubt as to whether the unit is properly grounded. Seek a qualified electrician to perform any modifications to the cord or plug. Cybex is not responsible for injuries or damages as a result of cord or plug modification.

Make sure that the unit is connected to an outlet having the same configuration as the plug. Do not use a ground plug adapter to adapt the power cord to a non-grounded outlet.

Important Safety Instructions

(Save These Instructions)

! DANGER: To reduce the risk of electric shock, always unplug this unit from the electrical outlet immediately after using it and before cleaning it.

! WARNING: Serious injury could occur if these precautions are not observed. To reduce the risk of burns, fires, electric shock, or injury:

User Safety Precautions

- Keep children away. Teenagers and disabled must be supervised. Tenez les enfants éloignés. Les adolescents et les handicapés doivent être surveillés.
- Obtain instruction before using. Lisez les instructions avant l'utilisation.
- Wait until foot plates come to a complete stop before dismounting. Attendre l'arrêt complet des reposés pieds avant de descendre.
- Obtain a medical exam before beginning any exercise program.
- Stop exercising if you feel faint, dizzy, or experience pain.
- Read and understand the Owner's Manual and all warnings posted on the unit before using.
- DO NOT wear loose or dangling clothing while using.
- Keep all body parts, towels, and the like free and clear of moving parts.
- Use the handrails for support and to maintain balance.
- DO NOT use the unit if you exceed 400 lbs. (180 kg). This is the rated maximum user weight.
- Replace any warning labels if damaged, worn or illegible.
- Report any malfunctions, damage or repairs to the facility.
- Wait until foot plates come to a complete stop before dismounting.
- All maintenance activities shall be performed by qualified personnel. Failure to do so could result in serious injury.
- DISCONNECT POWER BEFORE SERVICING.
- Moving parts. Keep hands away when in use.
- For connection to a Medical Grade outlet only to ensure proper grounding. Rated 100-240 VAC~ 50/60 Hz 0.75 A.

Facility Safety Precautions

- Make sure all user and safety precautions are observed.
- Read and understand the Owner's Manual completely before using the unit.
- Make sure all users are properly trained on how to use the equipment.
- Make sure that each machine is setup and operated on a solid level surface. Do not install equipment on an uneven surface.
- Make sure there is enough room for safe access and operation of the equipment.
- Perform regular maintenance checks on the equipment. Also pay close attention to all areas most susceptible to wear, including (but not limited to) cables, pulleys, belts and grips.
- Immediately replace worn or damaged components. If unable to immediately replace worn or damaged components then remove from service until the repair is made.
- Do not attempt repairs, electrical or mechanical. Seek qualified repair personnel when servicing. If you live in the USA, contact Cybex Customer Service at 888-462-9239. If you live outside the USA, contact Cybex Customer Service at 508-533-4300.
- Disconnect the optional power adapter before servicing the unit.
- Keep a repair log of all maintenance activities.
- Use only Cybex supplied components to maintain/repair the equipment.
- Do not use attachments unless recommended for the unit by Cybex.
- Do not use the unit if: (1) the unit is plugged into an optional power adapter that has a damaged cord; (2) the unit is not working properly or (3) if the unit has been dropped or damaged. Seek service from a qualified technician.
- Do not use the optional power adapter in damp or wet locations.
- EQUIPMENT not suitable for use in the presence of a FLAMMABLE ANAESTHETIC MIXTURE WITH AIR or WITH OXYGEN OR NITROUS OXIDE.
- Do not use the unit outdoors.
- The 620A/629A may generate electromagnetic or other forms of interference, or it may be affected by interference from other equipment nearby. If this is suspected, take precautions by separating the equipment or otherwise shielding it to avoid such interference.

NOTE: *It is the sole responsibility of the user/owner or facility operator to ensure that regular maintenance is performed.*

Arc Trainers containing the A/V options

- Devices connected to Cybex equipment must comply with appropriate safety standards. This includes but not limited to: (UL-60601, IEC/EN 60601-1) for medical equipment.
- There must be adequate mechanical mounting of the device in all combinations (configurations).

Cybex Arc Trainer 620A/629A Owner's Manual

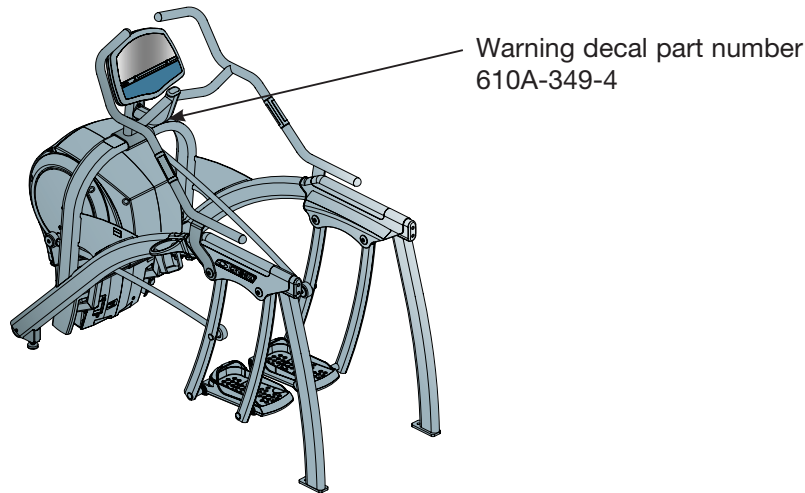
- The device must be stable on the unit in all configurations.
- Risk and leakage current of the final combinations must comply with IEC/EN 60601-1-1 and is the responsibility of the end user to ensure compliance.
- Electromagnetic emissions and immunity of all configurations must conform to IEC/EN 60601-1-2.
- All added devices must have a compatible interface.
- All devices must be used for their intended purpose.
- Signal or mains isolation devices and additional protective earth may be needed to assure compliance with IEC/EN 60601-1-1.
- Do not power the entire system from a single outlet or power strip. If the unit is used with the optional power supply, ensure that this power supply is plugged in to a separate outlet than any connected device, to prevent exceeding the allowable leakage current of the system.
- End user of a system shall ensure that interruption and restoration of the power supply to any equipment or non-medical equipment of the system shall not result in a safety hazard other than interruption or cessation of its intended function.



Warning Decals

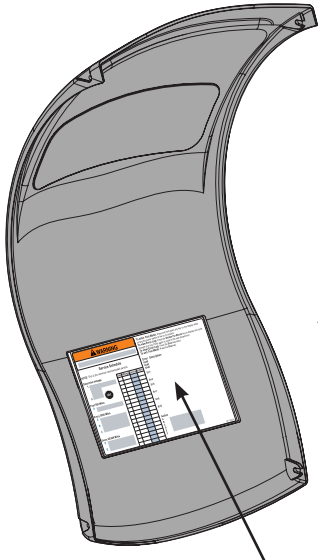
Carefully read and understand the following before using the unit:

NOTE: To replace any worn or damaged decals do one of the following: Fax orders to 508-533-5183 or contact Cybex Customer Service at 888-462-9239. If you live outside of the USA, call 508-533-4300.

Warning decals indicate a potentially hazardous situation, which, if not avoided, could result in death or serious injury. The warning decals are shown below.



 WARNING	Keep children away. Teenagers and disabled must be supervised. <i>Tenez les enfants éloignés. Les adolescents et les handicapés doivent être surveillés.</i>	Read and understand the Owner's Manual and all warnings posted on the unit before using. 
	SERIOUS INJURY COULD OCCUR IF THESE PRECAUTIONS ARE NOT OBSERVED	Obtain instruction before using. <i>Lisez les instructions avant l'utilisation.</i>
	Wait until foot plates come to a complete stop before dismounting. <i>Attendez l'arrêt complet des reposés pieds avant de descendre.</i>	Keep all body parts, towels, and the like free and clear of moving parts.
	Obtain a medical exam before beginning any exercise program.	Use the handrails for support and to maintain balance.
	Stop exercising if feeling faint, dizzy, or experiencing pain.	DO NOT use unit if user exceeds 400 lbs. (180 kg). This is the rated maximum user weight.
	Keep foot plate surface clean and dry.	Replace any warning labels if damaged, worn or illegible.
		Report any malfunctions, damage or repairs to the facility. 610A-349-4 A



Underneath
Access Cover

! WARNING

All maintenance activities shall be performed by qualified personnel. Failure to do so could result in serious injury.

Warning decal part number - DE-19592-4

! WARNING

**SERIOUS INJURY COULD OCCUR
IF THESE PRECAUTIONS
ARE NOT OBSERVED**

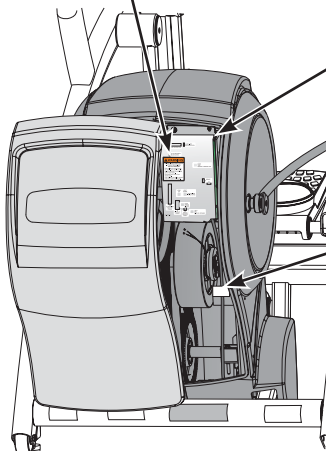
High voltage is present under this shield. This shield should only be removed by a qualified service technician.
Keep wet items away from inside parts.
High voltage may still be present even if the unit is unplugged.

Shield part number
630A-316



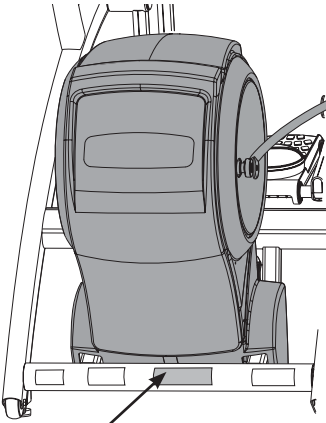
Warning battery
DE-19586
Located on
battery bracket

Warning decal part number
DE-17155-4




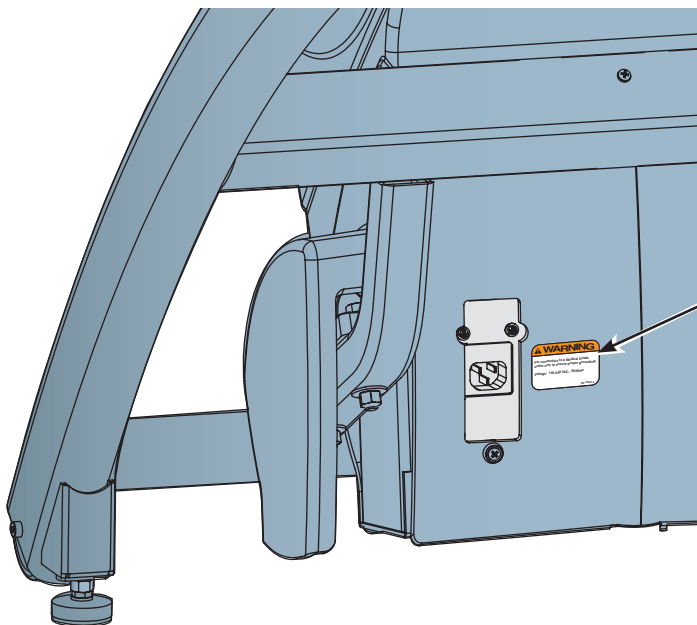
! WARNING
Hot flywheel! Wait until it
cools before servicing.
DE-17155-4

Warning Decals for Units with AC Power Kit

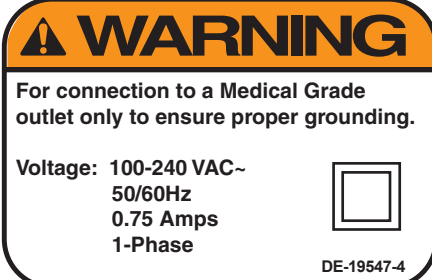


Warning decal part number CM000240

	WARNING	WARNING	警告	ПРЕДУПРЕЖДЕНИЕ
	AVERTISSEMENT	ADVERTENCIA		VARNING
DISCONNECT POWER BEFORE SERVICING.	DÉBRANCHEZ L'ALIMENTATION AVANT DE FAIRE L'ENTRETIEN	VOR SERVICEAR- BEITEN NETZSTECKER ZIEHEN.	CORTE LA ENERGIA ELECTRICA ANTES DE REPARAR.	修理点検の前に 電源を 切ってください。
				KOPPLA IFRÅN STRÖMMEN INNAN SERVICE UTFÖRS.
				ОТКЛЮЧИТЕ ПИТАНИЕ, ПРЕЖДЕ ЧЕМ ПРИСТУПАТЬ К ОБСЛУЖИВАНИЮ.
				CM000240 E



Warning decal part number DE-19547-4



WARNING

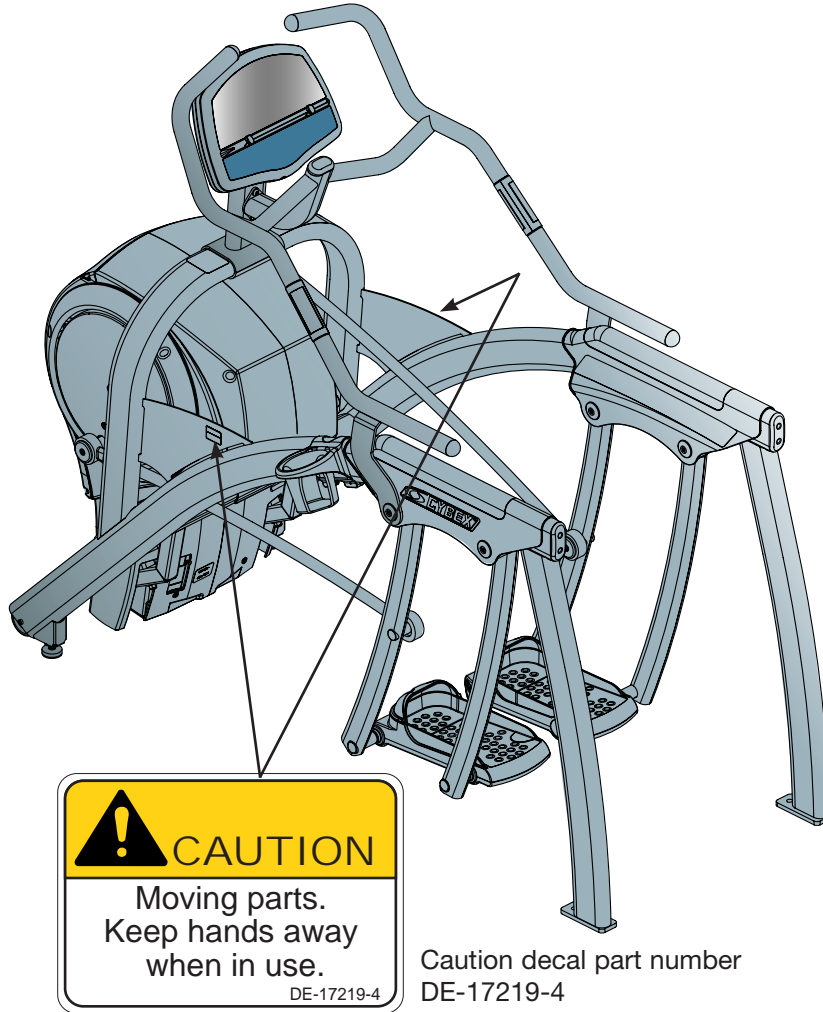
For connection to a Medical Grade outlet only to ensure proper grounding.

Voltage: 100-240 VAC~
50/60Hz
0.75 Amps
1-Phase

DE-19547-4

Caution Decal

Caution decals indicate a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury. The caution decals are shown below.



NOTE: This decal is located on both sides of the unit in a total of two locations.

Explanation of Symbols Used



Class II Equipment - Classifies equipment as Class II with double insulation.



Type BF Applied Part - Classifies equipment as Type BF, providing protection against electric shock.



CE - The CE (Conformité Européenne) mark is a European Union approval indicating that a product complies with a European Directive.



Pause/End - Press to pause program.



Quick Start - Press to skip *Program Setup Mode* and enter *Manual Mode*.



Up Triangle - This key adjusts **Time**, **Level** or **Weight** up.



Down Triangle - This key adjusts **Time**, **Level** or **Weight** down.



Up Arrow - This key adjusts **Incline** up.



Down Arrow - This key adjusts **Incline** down.



Level Plus - This key adjusts **Level** up.



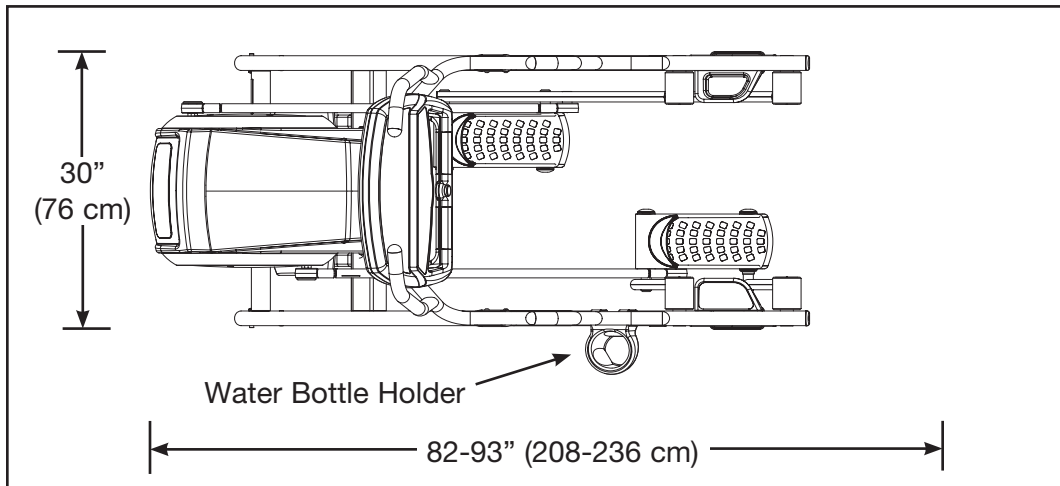
Level Minus - This key adjusts **Level** down.

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2 - Technical Specifications

Specifications

Length:	82" (208 cm) NOTE: When highest incline is in use the length increases to 93" (236 cm).
Width:	30" (76 cm) NOTE: Measurement is without the water bottle holder. Width with water bottle holder and arms attached is 37" (94cm).
Height:	59" (150cm).
Weight of Product:	450 lbs. (204 kg).
Shipping Weight:	475 lbs. (215 kg).
Incline Levels:	11 (Represented by 0-10% in increments of 1).
Resistance Levels:	101 (Represented by 0-100% in increments of 1).
Stride Length:	24" (61 cm) fixed length.
Programs:	Quick Start plus Manual, Weight Loss, Cardio, Interval, Hill and Strength.
Console Features:	Upper console: Dot Matrix of program, large 1" LED display of distance, calories, calories per hour, METS, Watts, strides per minute and heart rate. Lower Console: LED display of resistance and dual function display of time and incline.
Heart Rate Features:	Built-in wireless heart rate receiver (transmitter not included) and contact heart rate monitoring.
Frame Colors:	Standard: White texture, black texture, metaltone gold, black chrome, platinum sparkle. Custom: Unlimited colors available.
Resistance Range:	0-900 watt.
Maximum User Weight:	400 lbs. (181 kg).
Power Rating:	Self powered or 100 - 240 VAC~, 50/60 Hz, 0.75A, 1-phase.
Other:	Water bottle holder.
Options:	Channel and volume controls on lower switch membrane for embedded A/V and AC power kit.



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3 - Operation

Read and understand all instructions and warnings prior to using the Unit. See all of the safety related information located in chapter 1.

Terms and Symbols Used

This section lists some of the common terms and symbols used in this chapter. Other terms and symbols are listed in this chapter as appropriate.

Dormant Mode - This occurs when the unit is plugged in, turned to the on (I) position and not in use. The control panel will display a beating heart when the unit is in *Dormant Mode*.

Program Setup Mode - This begins after pressing any program key. Upon entering a program the LEDs flash, prompting the user to adjust the appropriate settings.

Active Mode - This begins immediately after pressing the **Quick Start** key (*Manual Mode*), or after the *Program Setup Mode*. The beginning of *Active Mode* is marked by the 3 second countdown. *Active Mode* continues until you reach the end of a program or press the **Pause/end** key.

Quick Start - This begins by pressing the **Quick Start** key. **Quick Start** skips the *Program Setup Mode* and begins immediately in *Manual Mode*.

Manual Mode - This begins immediately after pressing the **Quick Start** key or after pressing the **Manual** program key. In *Manual Mode* you can customize your workout **Resistance** and **Time** and enter your **Weight** by pressing those keys. **NOTE:** *Manual Mode features differ from the Manual Program. See the Manual section in this chapter.*

Workout Review - This begins after pressing the **Pause/end** key once, at the end of a program or when you stop striding for 25 seconds. The workout statistics accumulated during the previous workout session will display for 20 seconds (default setting) or until **Pause/end** is pressed again. **NOTE:** *You can change the 20 second default. See Setting Operation Options in chapter 5.*

Pause Mode - This begins when the you stop striding for 25 seconds or when you press **Pause/end** once. While in *Workout Review* you can press the **Quick Start** key to resume your workout in *Manual Mode*. The time, calories burned and other accumulated data is remembered and added to.

▲▼ - These keys adjust **Time**, **Level** or **Weight** up or down.

↑↓ - These keys adjust **Incline** higher or lower..

+ - - These keys adjust **Resistance** up (+) or down (-).

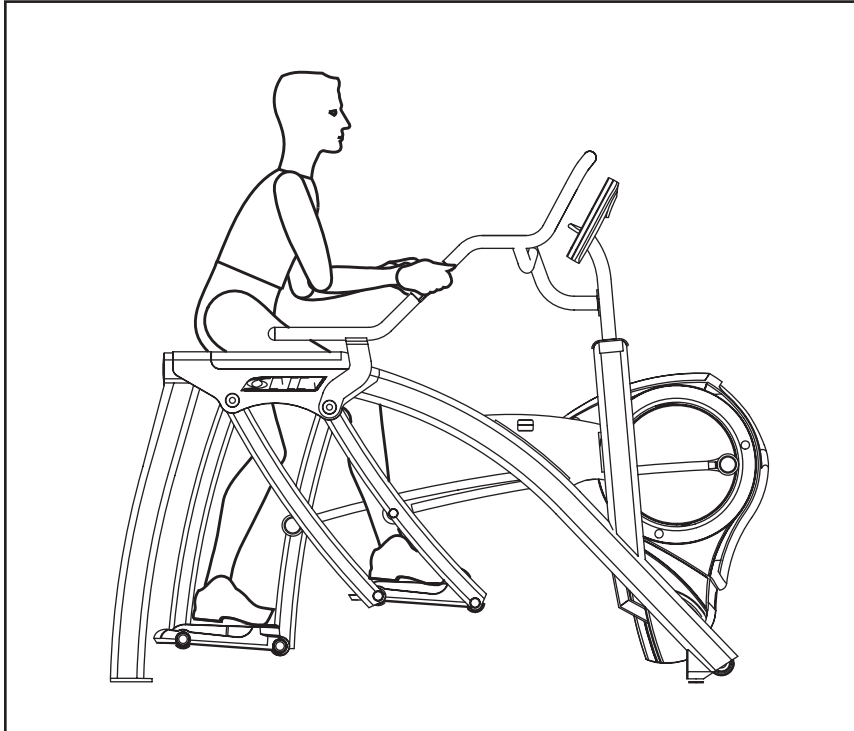
channel + - (optional) - These keys adjust **Channel** up (+) or down (-).

volume + - (optional) - These keys adjust **Volume** up (+) or down (-).

Intended Use

The intended use of this exercise equipment is to aid or improve general physical fitness and exercise. For Household or Commercial use.

620A/629A Arc Trainer



Quick Operation Guide

NOTE: Maximum user weight is 400 lbs. (181 kg).

The following is a quick overview of the operation of the unit. For more information read *Detailed Operation Guide* in this chapter. **NOTE:** Times specified in this chapter reflect the unit's defaults. To change the defaults see *Setting Operation Options* in chapter 5.

1. Hold the handrails to steady yourself while you step into the foot plates and begin pedaling.
2. Press any program key or press **Quick Start** to skip the settings and begin *Manual Mode* immediately.
3. If you pressed a program key to select a program, you will now be prompted for workout **Time**, **Weight**, and **Level** as appropriate. Adjust these settings with the ▲▼ arrows and press **Enter** to proceed. **IMPORTANT: Enter your actual weight.** The **Resistance + -** keys calculate the proper resistance for your weight. Your workout may feel too easy or too difficult if you do not enter your actual weight.
4. The unit begins the workout session setting resistance to correspond to the program that you selected.
5. Press the **Resistance + -** keys to change the load at any time. The right display will show the current resistance setting.
6. Press the **Incline** ▲▼ keys to change the incline at any time. The left display will show the current incline setting.
7. Press the **Pause/End** key at any time.

! WARNING: Wait until all moving parts come to a complete stop before dismounting.

8. Wait until foot plates come to a complete stop before dismounting the unit. Hold the handrails to steady yourself while you step off the unit.

Detailed Operation Guide

NOTE: Maximum user weight is 400 lbs. (181 kg).

1. If using the optional AC power kit, plug the power cord into a power outlet having the same configuration as the plug. **NOTE:** Coil up the remainder of the power cord and place it out of the way.
2. If using the optional AC power kit, observe that the control panel is illuminated.
3. Hold the handrails to steady yourself while you step into the pedals.

4. You now have the option to select a program or to select **Quick Start**, skip *Program Setup Mode*, and enter *Manual Mode*.

To select a program, press a program key and follow the prompts. Upon entering a program the LEDs flash, prompting you to adjust the appropriate settings. This is referred to as *Program Setup Mode*. If the **Quick Start** key is pressed now, all defaults for that program will be accepted. After 10 seconds, if no key has been pressed, the first default will be accepted. After another 10 seconds the second default will be accepted and so on until the last default. The program will not enter *Active Mode* until you press the **Enter** or **Quick Start** key. If no key has been pressed for 20 seconds after displaying the last default, then the unit will return to the *Dormant Mode*.

If you press the **Quick Start** key instead of choosing a program, you will enter *Manual Mode*.

NOTE: No prompts will occur in *Manual Mode*. While in *Manual Mode*, customize your workout **Resistance** and **Incline** and enter your **Weight** by pressing those keys.

IMPORTANT: Enter your actual weight. The **Resistance + -** keys calculate the proper resistance for your weight. Your workout may feel too easy or too difficult if you do not enter your actual weight. For the most accurate calorie count, you must set your correct weight before beginning your workout (including clothing).

NOTE: Press **Enter** after each adjustment.

5. Depending on which program and level you selected, the resistance may begin to increase and the incline may rise or fall.
6. Observe the four displays (See Figure 1):

The lower left display flashes the actual incline until the desired incline is reached and then reverts to time. During your workout the time will show in the format of minutes:seconds. If your workout exceeds sixty minutes the time format will change to minutes only.

The lower right display shows the user's current resistance.

The top center display begins showing your program profile at the left side.

The center display shows statistics or adjustable settings. This scans (every three seconds) through **Distance, Calories, Calories per Hour, Mets, Watts** and **Strides Per Minute**. Press the **Scan** key to toggle this feature on or off.

NOTE: The charging battery LED will light only when the battery is being charged.

NOTE: Heart Rate is scanned only when you are holding the contact heart rate grips or using Polar compatible heart rate transmitter. See Figure 1.

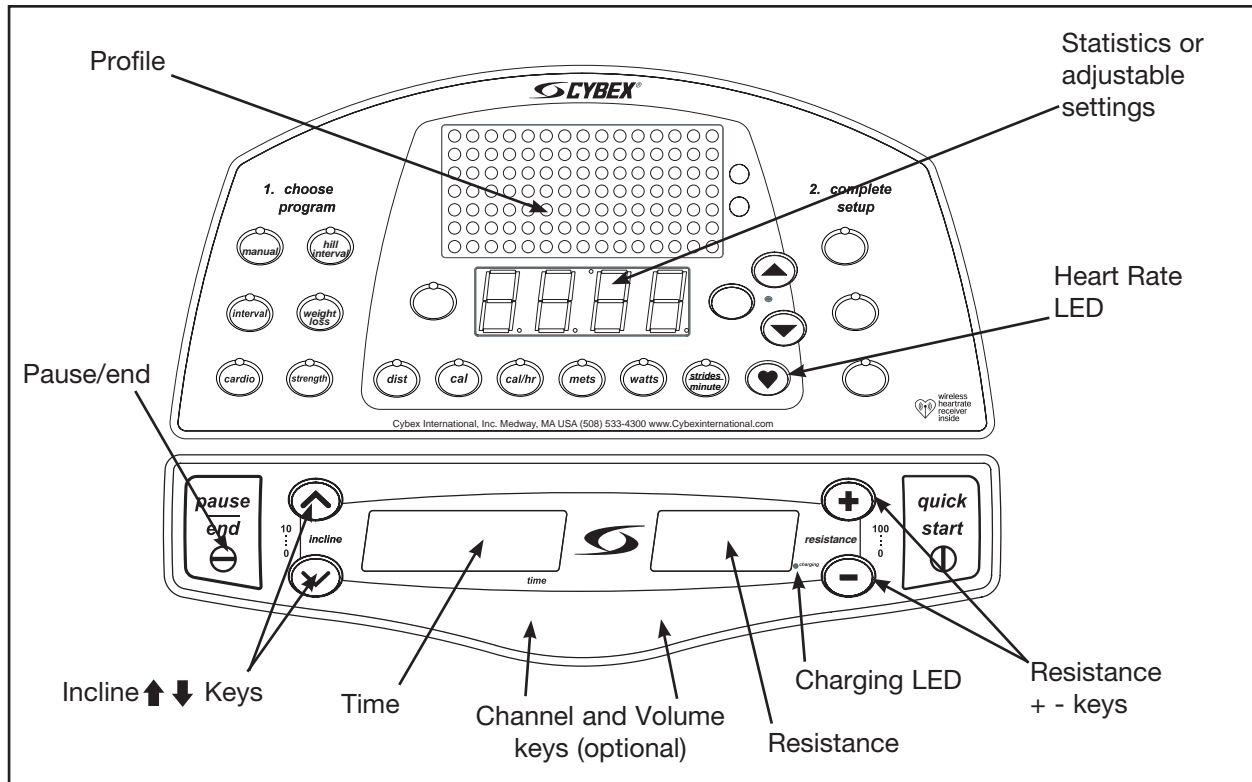


Figure 1

7. Press the **Resistance + -** keys to change the load at any time. Pressing the + key will make your workout harder. Pressing the - key will make your workout easier. The right display will show the current level in increments of 1 from 0 to 100.
8. Press the Incline **↑ ↓** keys to change the incline at any time. The left display will show the current incline (only while it is adjusting), in increments of 1 from 0 to 10.
9. Press the **Pause/end** key at any time to stop your workout. Press **Pause/end** once to end your workout and begin your *Workout Review*. Press **Pause/end** twice to clear the *Workout Review* and return to *Dormant Mode*.
10. When you complete a program the unit begins a countdown, “3...2...1” and sounds a tone for each count. *Workout Review* displays for 20 seconds (default setting) or until you press the **Pause/end** key.

NOTE: *Speeding up and slowing down is dependent on the user speeding up and slowing down.*

! WARNING: *Wait until foot plates come to a complete stop before dismounting.*

11. Wait until foot plates come to a complete stop before dismounting the unit. Hold the handrails to steady yourself while you step off the unit.
12. The unit returns to *Dormant Mode* or powers off. (If used with optional power adapter, returns to *Dormant Mode*).

Stopping the Arc Trainer 620A/629A

Press **Pause/End** once to pause your workout for 20 seconds (default setting) and to enter the *Workout Review*. All workout settings and data will remain in memory for the pre-selected time. Press the **Quick Start** key within the default setting to continue your workout. If the **Quick Start** key has not been pressed during the 20 second pause, workout data will be cleared and the display will either change to *Dormant Mode* or powers off.

Press **Pause/end** a second time to interrupt workout data from cycling and to change the display to *Dormant Mode*.

NOTE: *Speeding up and slowing down is dependent on the user speeding up and slowing down.*

! WARNING: *Wait until foot plates come to a complete stop before dismounting.*

Emergency Dismount: Follow the steps listed below if you experience pain, feel faint or need to stop your unit in an emergency situation:

1. Grip handrails for support.
2. Stop striding.
3. Wait until the foot plates come to a complete stop.
4. Continue holding the handrails while you step off the unit.

Presence Detect

Presence Detect uses the movement of the pedals and any input from the user (such as a key press or heartrate) to determine your presence. If you step off the Arc or stop moving during a workout, it may detect that you are not there. After the pre-selected waiting period "run?" will appear in the center window for a few seconds then Presence Detect will end your workout session. If you press Quick Start within the time selected you can resume your workout.

Control During Operation

Control keys on the display are usable during operation and may be pressed at any time to make adjustments in level, incline or data readouts.

Changing Level - You can change the level during a programmed workout. Press the **Level** key to display the current program and level status. Then press **▲▼** keys to change the level. The level will change immediately and will continue to accumulate performance data without interruption. **NOTE:** *If you change the level during the Manual Mode the level and resistance will change at once.*

Changing Resistance - Press the **Resistance + -** keys to change the load in increments of 1. Minimum to maximum resistance is from 0-100. **NOTE:** *During a Manual Mode or Quick Start workout the ▲▼ keys temporarily revert to resistance keys.*

Changing Incline - Press the **Incline ↑↓** keys to change the elevation in increments of 1 from 0-10. The elevation rises in the shape of an arc ranging from 12 to 34.5 degrees. See *Range of Motion* in this chapter.

channel + - (optional) - These keys adjust **Channel** up (+) or down (-).

volume + - (optional) - These keys adjust **Volume** up (+) or down (-).

Changing Programs - When changing programs, your data from the previous program will transfer only when changing from one program to manual mode. You cannot transfer data when changing from one program to another program or from *Manual Mode* to a program.

Changing Workout Time - Press **Time** to alter the amount of time you plan to workout. You can change **Time** before or during a workout. **NOTE:** The **Max** default time may limit your time. See *Setting Operation Options* in chapter 5.

Changing Data Readouts - Press **Scan** once to continue to display a set of data. Press **Scan** again and it will continually review each set of data. **NOTE:** The automatic scan is a feature that can be toggled and/or turned on or off. See *Setting Operation Options* in chapter 5. If **Scan** is off, your heart rate will still appear when a heart beat is detected.

Data Readouts

As you exercise, the Arc Trainer 620A/629A keeps track of the following data.



Distance - The total accumulated distance, in miles or kilometers, during your workout. **NOTE:** Depending on the defaults you've chosen this measurement will show in English or Metric.

Calories - The total accumulated calories burned during your workout. Your weight must be correctly set before beginning your workout for this measurement to be most accurate.

Calories Per Hour - Calculation of present workloads energy exertion in Calories per Hour. Your weight must be correctly set before beginning your workout for this measurement to be most accurate.

Metabolic Equivalent - Relates to the user's energy expenditure. A MET is a basic unit of measurement that is used to compare relative work between individuals and activities. One MET is the amount of oxygen an individual consumes at rest. For example two mets would be twice that amount. If an individual were working at four METs he/she would be consuming oxygen at a rate equal to four times their resting consumption. METs can be used to compare walking on a grade with running or even to cycling and other activities. See *The Workout Profile* in this chapter for more information.

Watts - Present workload energy exertion in Watts.

Strides Per Minute - Your average number of strides per minute at your current speed.

Heart Rate - Your current heart rate. Heart rate will appear when a signal is introduced. Use either the handgrips for Contact Heart Rate or a Polar compatible heart rate transmitter. See *Heart Rate LED* for a description of colors.

To review accumulated data after a program: The display automatically cycles through your accumulated workout data during the *Workout Review* for 20 seconds (default setting).

Displaying Heart Rate

In order to display your heart rate, you must either use a Polar compatible heart rate transmitter belt (not included) or hold the handgrips to use Contact Heart Rate.

Contact Heart Rate - Hold the handgrips on the handrails until a heart rate is displayed, typically less than thirty seconds. For best results, hold the handgrips lightly and ensure that your hands contact both the front and back sensors of each grip. **NOTE:** *Hold your hands as steady as possible as movement can cause interference on the contacts.*

Factors that can interfere with the heart rate signal include:

- excessive movement
- body composition
- hydration
- too loose grip
- too tight grip
- excessive dirt, powder or oil
- resting or leaning on the grips

Contaminants, such as hand lotions, oils or body powder, may come off on the contact heart rate grips. These can reduce sensitivity and interfere with the heart rate signal. Therefore, ensure you have clean hands when using the contact heart rate.

Polar Compatible Reception - To use this feature, a Polar compatible heart rate transmitter belt must be worn. To view heart rate continuously, press the **Scan** key when the Heart LED is lit or press the **Heart** key.

Heart Rate LED

When the handgrips are held the center display switches to show the heart rate in beats per minute (BPM) if you are not scanning. For several seconds the display will show "---". Once the actual heart rate is determined the center window displays the BPM and the Heart LED lights up. See Figure 2. The color of the light represents a scale of low to high target heart rate.

Blue = 0-69 beats per minute
 Green = 70-93 beats per minute
 Yellow = 94-120 beats per minute (FAT BURN ZONE)
 Amber = 121-170 beats per minute (CARDIO ZONE)
 Purple = 171 & up beats per minute

NOTE: A label is on the unit to remind you what the color represents while you are working out. See Figure 2.

Use of Programs

! WARNING: Obtain a medical exam before beginning any exercise program. Begin comfortably with a lower level and progress with higher levels as you become acclimated.

With the Arc Trainer 620A/629A, you may choose from six different programs. Five of the programs provide ten levels of difficulty for a choice of fifty different preprogrammed options. You may also use *Manual Mode*.

With this unique combination of programs, you can tailor your workout to achieve exactly the fitness goals you desire, including: weight loss, conditioning, endurance or maintenance of overall health. Speed is never predetermined for you; you can change your speed simply by changing your stride. The program choices are summarized as follows:

Quick Start	No levels	Skip setup and control speed, incline, and time as you go.
Hill Interval	10 levels	Control speed and time. Level dictates incline and level.
Interval	10 levels	Enter time desired. Level dictates incline and level.
Weight Loss	10 levels	Enter time desired. Level dictates incline and level.
Cardio	10 levels	Enter time desired. Level dictates incline and level.
Strength	10 levels	Enter time desired. Level dictates incline and level.
Manual	No levels	Enter time desired. Control incline and level as you go.

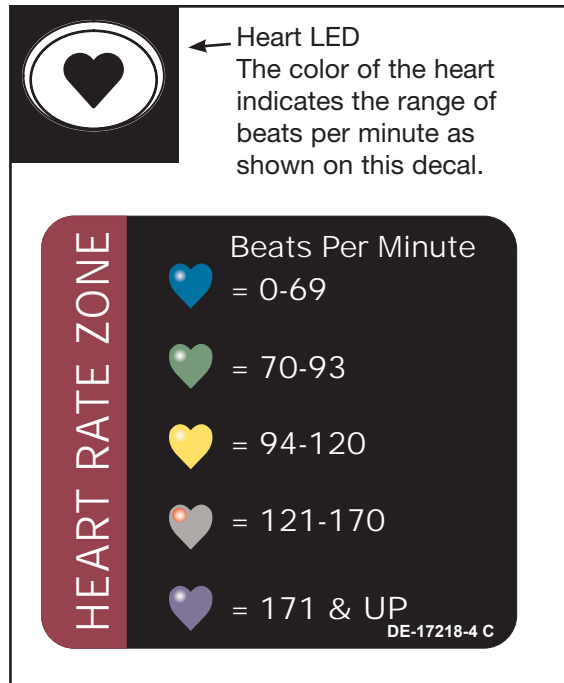


Figure 2



Manual Mode

Manual Mode is not a preprogrammed workout. Instead, it allows you to choose setting as you workout. You may choose your settings according to how you feel or your endurance level. Since you remain in control, *Manual Mode* may be the best choice for beginners or for those who have not worked out in a long time.

Press the **Quick Start** key to workout in *Manual Mode*. To increase or decrease the resistance while in *Manual Mode* use the **Resistance + -** keys. To increase or decrease the incline while in *Manual Mode* use the **↑↓** arrows.

When you workout in *Manual Mode*, be sure to include a three-to-five minute warm-up and cool-down period. You can warm-up by setting a low resistance at zero incline and then gradually increase the incline and resistance to the target for your workout. Reverse this process for your cool-down period, lowering the resistance gradually and returning the incline to zero.

The Workout Profile

The Workout Profile matrix in the center of the display uses columns of lights to show the progress of your workout. The height of the column represents METS, specifically the highest METS you reached in that period. Each column represents 1 minute of your total workout time when in *Manual Mode* and 15 seconds in every other program.

NOTE: *It is conceivable to have two segments of different speed and elevation combinations in the same met range.*

Range of Motion

Press the **Incline ↑↓** keys to change the elevation in increments of 10%. The elevation rises or lowers in the shape of an arc ranging from 12 to 34.5 degrees (with the chord of an arc). Depending upon the incline you choose the primary and secondary muscles trained will vary. See Figure 3.

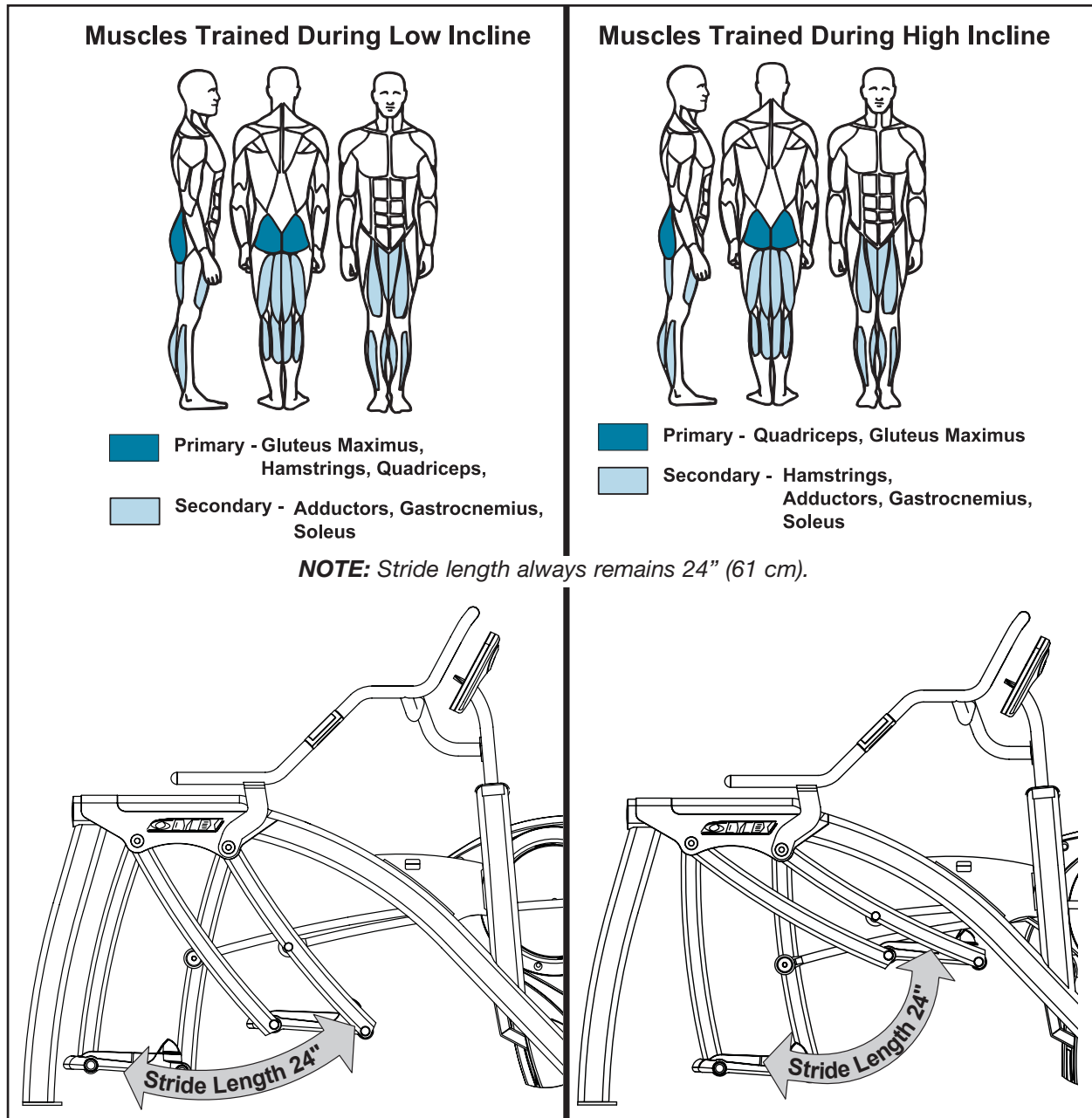


Figure 3

Hill Interval

Program Overview

The Hills program is designed to give the user the experience of hiking in a hilly terrain. This program uses intervals of moderate resistance and incline to simulate relatively flat areas and intervals of substantially greater incline and resistance to simulate steeper grades. Likewise the two-minute work segments are intended to tax the users capabilities, while the two-minute rest allows for recuperation and allows for repeated work segments. See table on the next page and Figure 4.

Hills

Time Segments	:30 :30 :30 :30				2:00 2:00 2:00 2:00				:30 :30 :30 :30			
	Warm Up				Program Segments				Cool Down			
Resistance	1	2	3	4	1	2	1	2	1	2	3	4
Program Level 10	20	25	30	35	40	60	40	60	35	30	25	20
9	20	25	30	35	40	50	40	50	35	30	25	20
8	15	20	25	30	35	45	35	45	30	25	20	15
7	15	20	25	30	35	40	30	40	30	25	20	15
6	15	15	20	25	30	35	25	40	25	20	15	15
5	15	15	20	25	30	25	35	35	25	20	15	15
4	10	10	15	20	25	30	30	30	20	15	10	10
3	10	10	15	20	25	25	25	30	20	15	10	10
2	10	10	10	15	20	20	20	25	15	10	10	10
1	10	10	10	10	15	15	15	20	10	10	10	10

Incline	Warm Up				Program Segments				Cool Down			
	1	2	3	4	1	2	1	2	1	2	3	4
Program Level 10	3	4	5	6	6	10	6	10	6	5	4	3
9	3	3	4	5	5	10	5	10	5	4	3	3
8	3	3	4	5	5	9	5	9	5	4	3	3
7	3	3	3	4	4	9	4	9	4	3	3	3
6	3	3	3	4	4	8	4	8	4	3	3	3
5	3	3	3	3	3	8	3	8	3	3	3	3
4	3	3	3	3	3	7	3	7	3	3	3	3
3	2	2	3	3	3	7	3	7	3	3	2	2
2	2	2	3	3	3	6	3	6	3	3	2	2
1	2	2	3	3	3	6	3	6	3	3	2	2

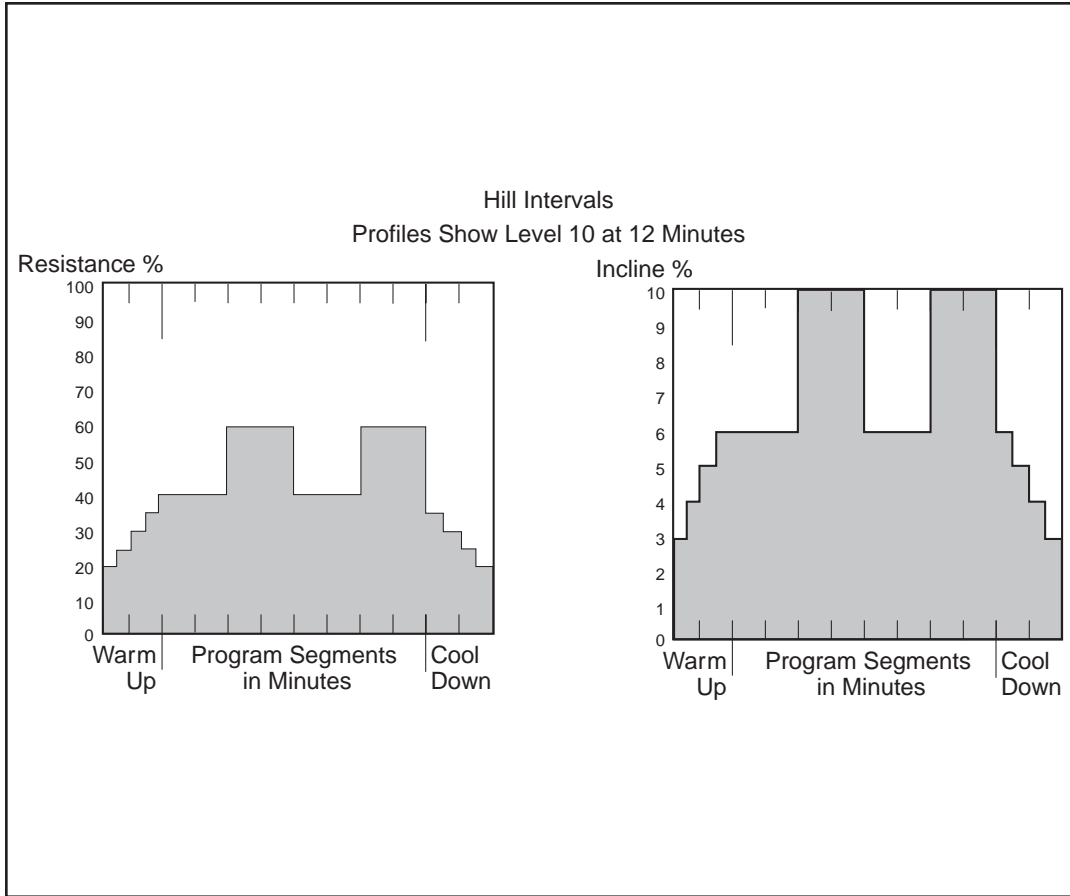


Figure 4

Interval

Program Overview

The Interval program utilizes a 1:2 (work:rest) ratio with the work period lasting for 30 seconds. This allows for moderate and balanced taxation of both the aerobic and anaerobic energy systems. As such this program is useful to those who desire improving both their aerobic and anaerobic capabilities. This program maintains a steady incline throughout. The use of low to moderate incline ensure that the gluteus maximus will be the prime mover. See table below and Figure 5.

Interval

Time Segments	:30				:30				:30				:30				:30			
	Warm Up				Program Segments												Cool Down			
Resistance	1	2	3	4	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	4
Program Level 10	35	45	55	65	70	45	45	70	45	45	70	45	45	70	45	45	40	35	30	20
9	35	40	50	60	65	40	40	65	40	40	65	40	40	65	40	40	35	30	25	15
8	30	40	50	55	60	35	35	60	35	35	60	35	35	60	35	35	30	25	20	15
7	30	35	45	50	55	30	30	55	30	30	55	30	30	55	30	30	30	25	20	10
6	25	35	40	45	50	30	30	50	30	30	50	30	30	50	30	30	30	25	20	10
5	25	30	35	40	45	25	25	45	25	25	45	25	25	45	25	25	25	20	15	10
4	20	25	30	35	40	25	25	40	25	25	40	25	25	40	25	25	25	20	15	10
3	20	25	30	30	35	20	20	35	20	20	35	20	20	35	20	20	20	15	10	10
2	15	20	25	30	30	20	20	30	20	20	30	20	20	30	20	20	20	15	10	5
1	10	15	20	20	25	15	15	25	15	15	25	15	15	25	15	15	15	15	10	5

Incline	Warm Up				Program Segments										Cool Down					
	1	2	3	4	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4
Program Level 10	2	2	3	4	5	5	5	5	5	5	5	5	5	5	5	5	4	3	2	2
9	2	2	3	4	5	5	5	5	5	5	5	5	5	5	5	5	4	3	2	2
8	2	2	3	3	4	4	4	4	4	4	4	4	4	4	4	4	3	3	2	2
7	2	2	3	3	4	4	4	4	4	4	4	4	4	4	4	4	3	3	2	2
6	2	2	3	3	4	4	4	4	4	4	4	4	4	4	4	4	3	3	2	2
5	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2
4	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2
3	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2
2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

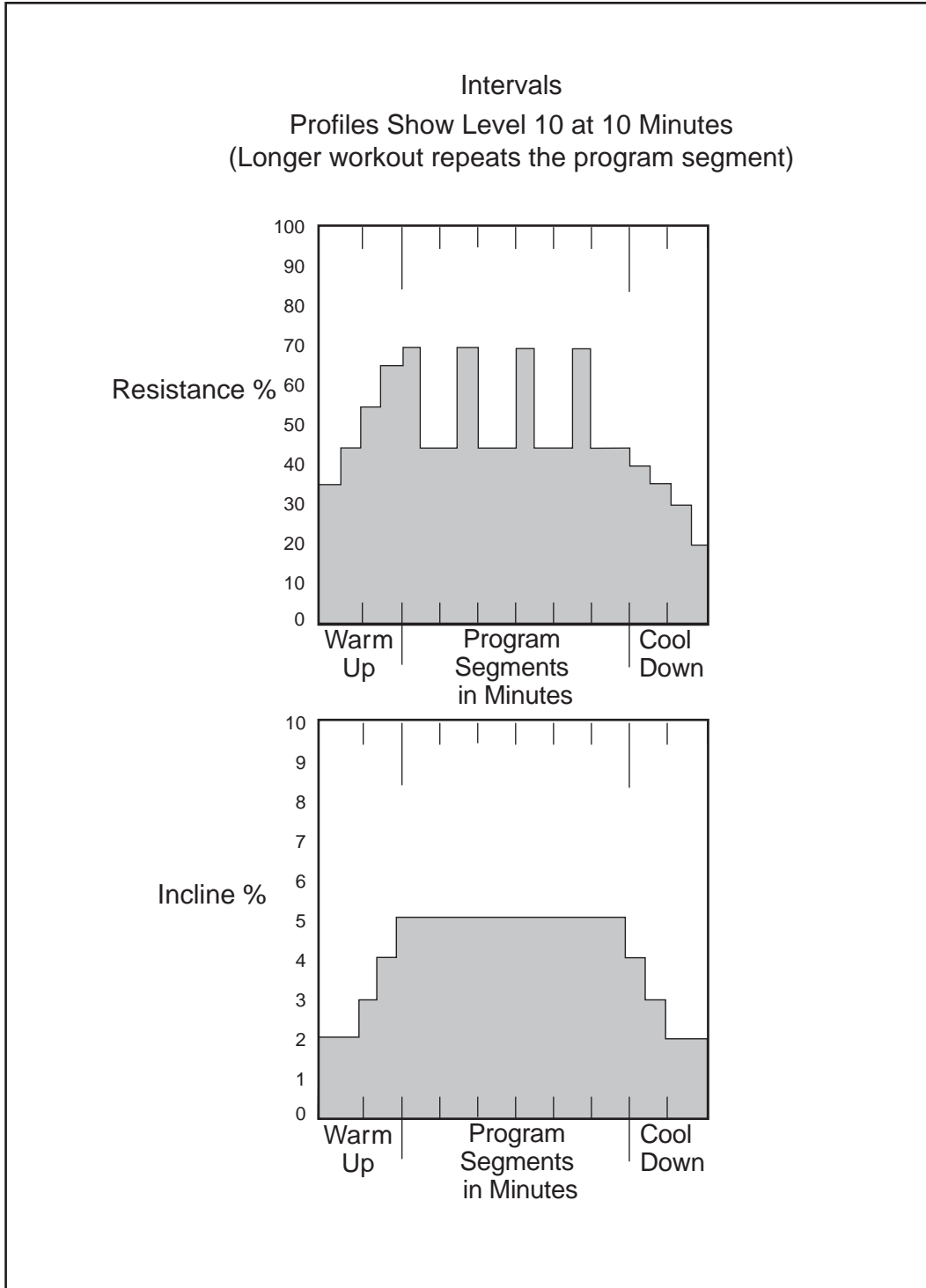


Figure 5

Weight Loss

Program Overview

The Weight Loss program is designed for low to medium intensity training that the user can sustain for an extended period of time. It builds from a low intensity baseline to include segments of higher incline and resistance as well as segments that use higher resistance with the baseline incline. The constant variety provides for periods of higher expenditure and training effect without the introduction of undue fatigue allowing the user to perform for longer periods of time. See table below and Figure 6.

Weight Loss

Time Segments	:30	:30	:30	:30	1:00	1:00	1:00	1:00	1:00	1:00	:30	:30	:30	:30
	Warm Up				Program Segments					Cool Down				
Resistance	1	2	3	4	1	2	3	4	5	1	1	2	3	4
Program Level 10	5	10	15	20	25	45	45	25	40	25	20	15	10	5
9	5	10	15	20	25	40	40	25	40	25	20	15	10	5
8	5	10	15	20	25	35	35	25	35	25	20	15	10	5
7	5	5	10	15	25	40	40	25	30	25	15	10	5	5
6	5	5	10	15	25	35	35	25	20	25	15	10	5	5
5	5	5	10	15	25	30	30	25	20	25	15	10	5	5
4	0	0	5	10	0	25	25	0	20	0	10	5	0	0
3	0	0	5	10	0	20	20	0	10	0	10	5	0	0
2	0	0	0	5	0	10	10	0	0	0	5	0	0	0
1	0	0	0	0	0	10	10	0	0	0	0	0	0	0

Incline	Warm Up				Program Segments					Cool Down				
	1	2	3	4	1	2	3	4	5	1	1	2	3	4
Program Level 10	4	4	4	4	4	6	6	4	4	4	4	4	4	4
9	4	4	4	4	4	6	6	4	4	4	4	4	4	4
8	3	3	3	3	3	6	6	3	3	3	3	3	3	3
7	3	3	3	3	3	4	4	3	3	3	3	3	3	3
6	3	3	3	3	3	4	4	3	3	3	3	3	3	3
5	3	3	3	3	3	4	4	3	3	3	3	3	3	3
4	2	2	2	2	2	3	3	2	2	2	2	2	2	2
3	2	2	2	2	2	3	3	2	2	2	2	2	2	2
2	2	2	2	2	2	3	3	2	2	2	2	2	2	2
1	2	2	2	2	2	3	3	2	2	2	2	2	2	2

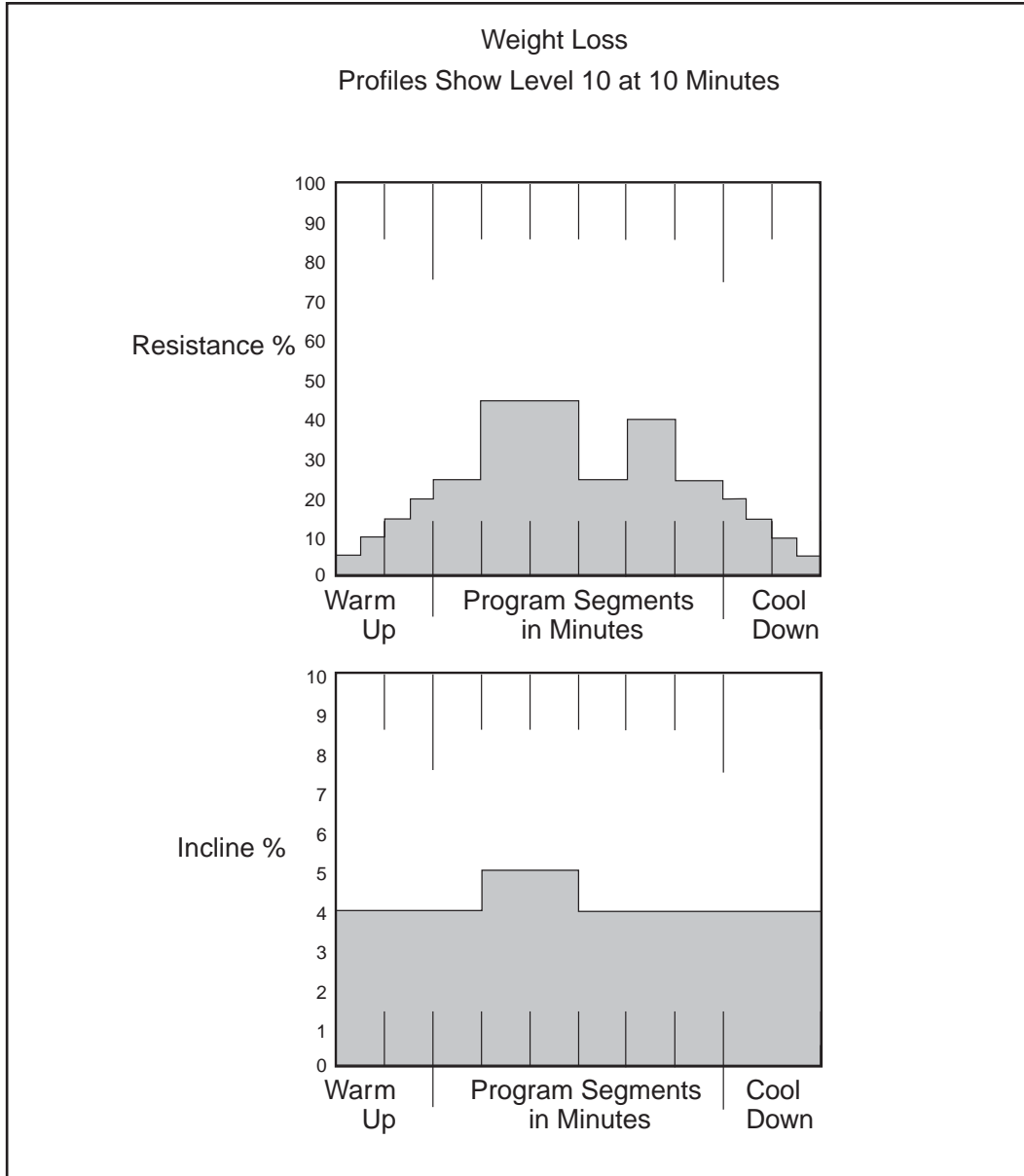


Figure 6

Cardio

Program Overview

The Cardio program is designed for experienced users that desire a high intensity cardiovascular training experience. The two-minute work interval with high resistance ensures that the aerobic energy system is completely taxed, while the subsequent two-minute rest interval allows for recovery enabling a repeat at the higher work rate. Additionally, a higher incline level is used during the recovery interval to discourage blood pooling, ensuring more complete recovery. See table below and Figure 7.

Cardio

Time Segments	:30	:30	:30	:30	2:00	2:00	2:00	:30	:30	:30	:30
	Warm Up				Program Segments			Cool Down			
Resistance	1	2	3	4	1	2	1	1	2	3	4
Program Level 10	30	35	45	55	80	60	80	55	45	35	30
9	25	35	45	55	75	55	75	55	45	35	25
8	25	30	40	45	70	50	70	45	40	30	25
7	20	25	35	40	65	45	65	40	35	25	20
6	15	20	30	35	60	40	60	35	30	20	15
5	15	20	25	30	55	35	55	30	25	20	15
4	10	15	20	25	50	30	50	25	20	15	10
3	5	10	15	20	45	30	45	20	15	10	5
2	0	5	10	15	40	25	40	15	10	5	0
1	0	0	5	10	35	20	35	10	5	0	0

Incline	Warm Up				Program Segments			Cool Down			
	1	2	3	4	1	2	1	1	2	3	4
Program Level 10	3	4	5	6	5	8	5	6	5	4	3
9	3	3	4	5	5	8	5	5	4	3	3
8	3	3	4	4	5	7	5	4	4	3	3
7	3	3	4	4	4	7	4	4	4	3	3
6	3	3	3	4	4	6	4	4	3	3	3
5	3	3	3	3	4	6	4	3	3	3	3
4	2	2	2	3	3	5	3	3	2	2	2
3	2	2	2	3	3	5	3	3	2	2	2
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1	2	2	2	2	2	4	2	2	2	2	2

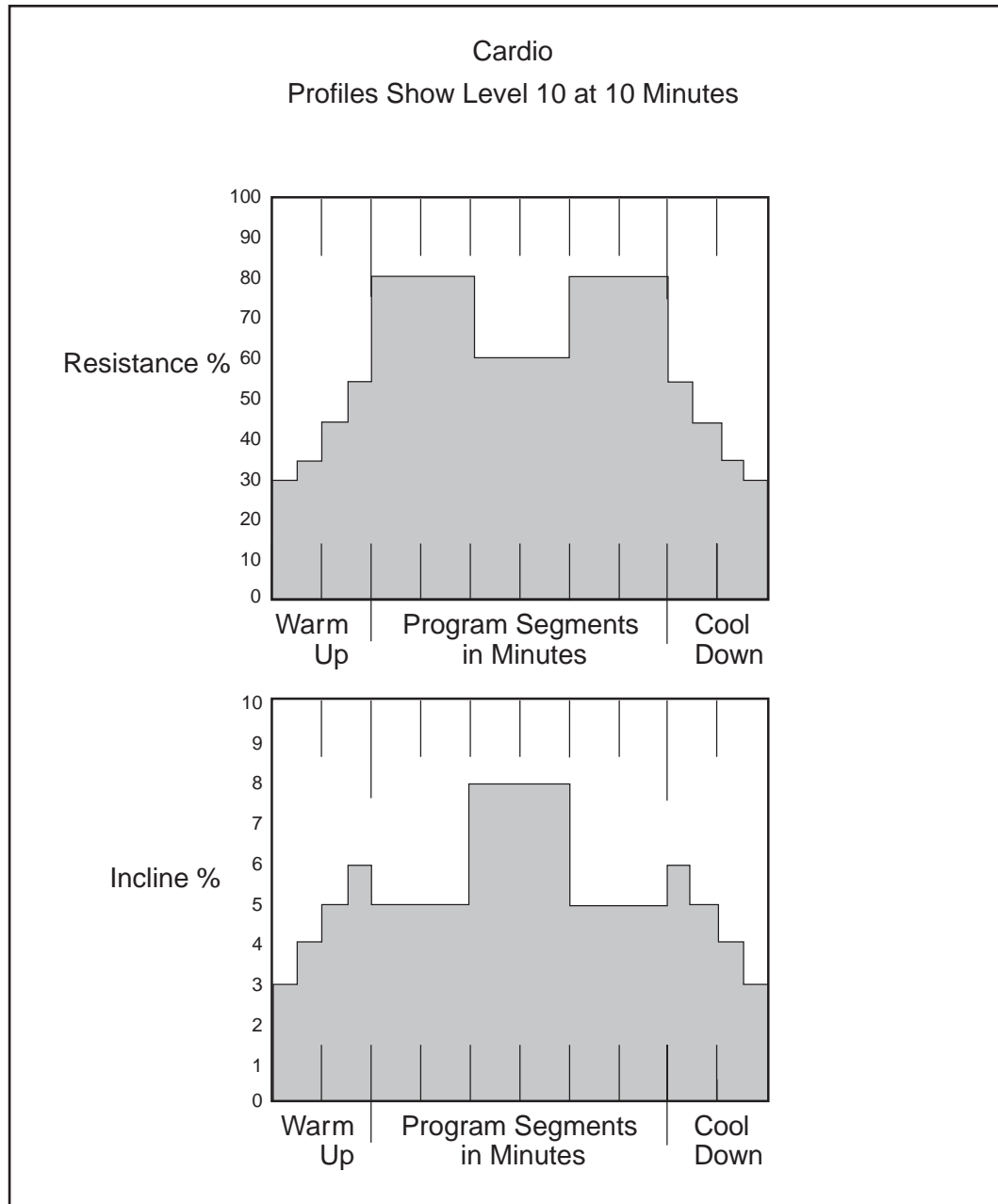


Figure 7

Strength

Program Overview

The program is designed with the specific goal of taxing the anaerobic energy system and encouraging maximal power development. This program uses a 1:3 (work:rest) ratio having 15-second work periods. The work periods use high resistance settings to maximally tax their anaerobic energy system and rest periods with very low resistance to encourage recuperation. Additionally, this program uses high incline settings to encourage contribution for the whole leg for maximal power production. See table below and Figure 8.

Strength

Time Segments	:30				:30				:15				:15				:15				:15				:15				:15				:15				:15				:30				:30				:30			
	Warm Up				Program Segments																Cool Down																															
Resistance	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4								
Program Level 10	50	65	80	90	100	35	35	35	100	35	35	35	100	35	35	35	100	35	35	35	100	35	35	35	100	35	35	35	100	35	35	35	100	35	35	35	100	35	35	35	30	25	20	15	30	25	20	15	30	25	20	15
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8	45	60	70	80	90	35	35	35	90	35	35	35	90	35	35	35	90	35	35	35	90	35	35	35	90	35	35	35	90	35	35	35	90	35	35	35	90	35	35	35	30	25	20	15	30	25	20	15	30	25	20	15
7	45	55	70	75	85	30	30	30	85	30	30	30	85	30	30	30	85	30	30	30	85	30	30	30	85	30	30	30	85	30	30	30	85	30	30	30	85	30	30	30	25	20	20	15	25	20	20	15	25	20	20	15
6	40	50	65	70	80	30	30	30	80	30	30	30	80	30	30	30	80	30	30	30	80	30	30	30	80	30	30	30	80	30	30	30	80	30	30	30	80	30	30	30	25	20	20	15	25	20	20	15	25	20	20	15
5	35	50	60	65	75	30	30	30	75	30	30	30	75	30	30	30	75	30	30	30	75	30	30	30	75	30	30	30	75	30	30	30	75	30	30	30	75	30	30	30	25	20	20	15	25	20	20	15	25	20	20	15
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2	30	40	50	55	60	20	20	20	60	20	20	20	60	20	20	20	60	20	20	20	60	20	20	20	60	20	20	20	60	20	20	20	60	20	20	20	60	20	20	20	15	0	10	5	15	0	10	5	15	0	10	5
1	30	35	45	50	55	20	20	20	55	20	20	20	55	20	20	20	55	20	20	20	55	20	20	20	55	20	20	20	55	20	20	20	55	20	20	20	55	20	20	20	15	0	10	5	15	0	10	5	15	0	10	5

Incline	Warm Up				Program Segments																Cool Down																							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																
Program Level 10	5	6	8	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	9	8	6	5	9	8	6	5	9	8	6	5
9	5	6	8	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	9	8	7	6	9	8	7	6	9	8	7	6
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1	3	4	5	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	5	4	3	6	5	4	3	6	5	4	3

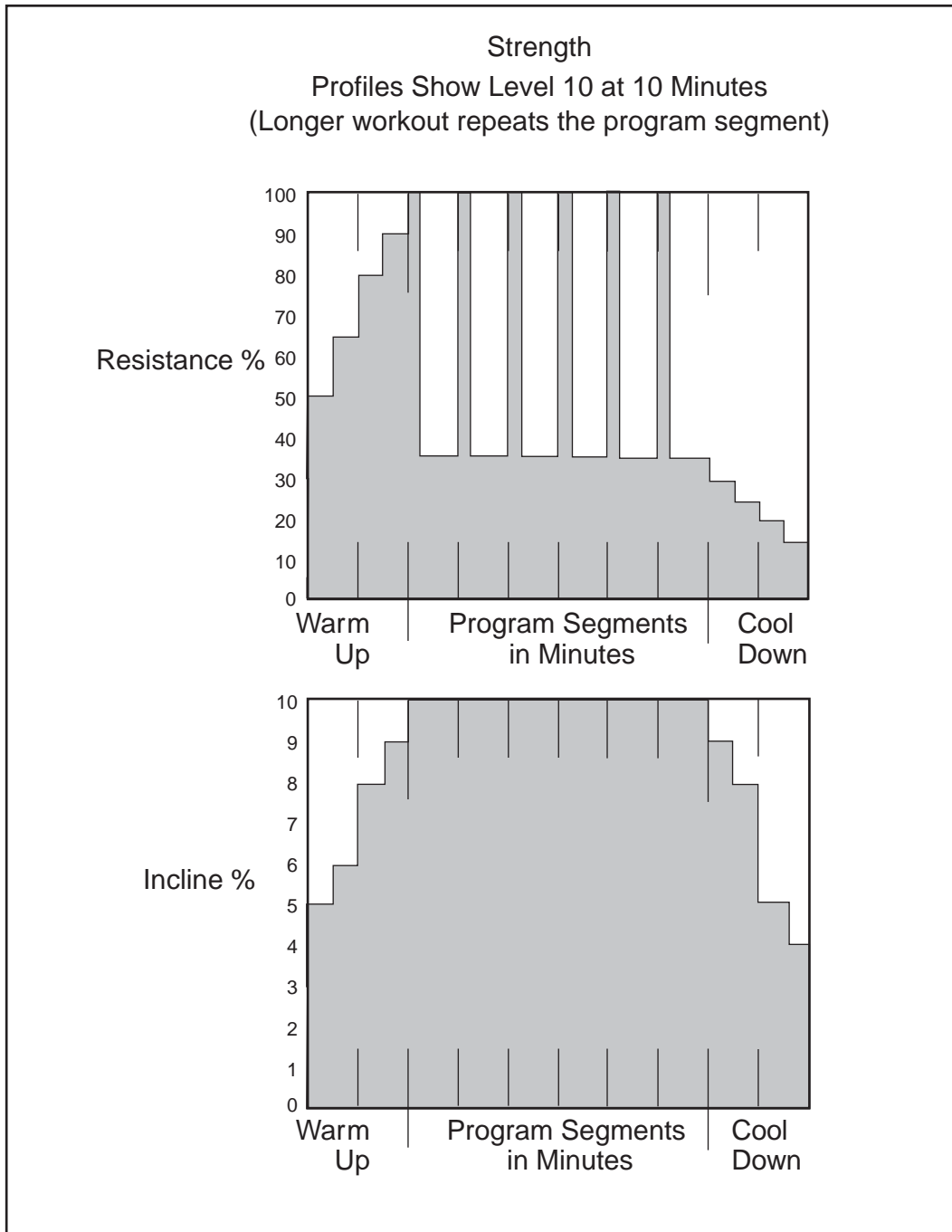


Figure 8

Manual

Program Overview

Manual Mode is available both through **Quick Start** and through the **Manual** program where it includes the program time and user weight adjustment. **NOTE:** *There is no diagram because resistance and incline are user-controlled.*

4 - Preventive Maintenance

Warnings

All warnings and cautions listed in this chapter are as follows:

! WARNING: All maintenance activities shall be performed by qualified personnel. Failure to do so could result in serious injury.

! WARNING: To prevent electrical shock, be sure that the unit is unplugged from the electrical outlet before performing any cleaning or maintenance procedures.

! WARNING: Keep wet items away from inside parts of the unit. Electrical shock could occur even if the unit is unplugged. Do not touch components on the lower board. A charge can remain after unplugging the power cord.

! WARNING: Disconnect the power cord before beginning this procedure. Keep wet items away from inside parts of the unit. Electrical shock could occur even if the unit is unplugged.

! WARNING: The flywheel may be hot. Wait until it cools before servicing.

! WARNING: Battery replacement shall be performed by qualified service technician.

Regular Maintenance Activities

! WARNING: All maintenance activities shall be performed by qualified personnel. Failure to do so could result in serious injury.

Preventive maintenance activities must be performed to maintain normal operation of your unit. Keeping a log of all maintenance actions will assist you in staying current with all preventive maintenance activities. See Service Schedule located at the end of this chapter.

NOTE: Worn or damaged components shall be replaced immediately or the unit removed from service until the repair is made.

NOTE: Cybex is not responsible for performing regular inspection and maintenance actions for your unit. Instruct all personnel in equipment inspection and maintenance actions and also in accident reporting/recording.

Cleaning Your Arc Trainer 620A/629A

! WARNING: To prevent electrical shock, be sure that the unit is unplugged from the electrical outlet before performing any cleaning or maintenance procedures.

When cleaning your unit spray a mild cleaning agent, such as a water and dish soap solution, on a clean cloth first and then wipe the unit with the damp cloth.

NOTE: Do not spray cleaning solution directly on the unit. Direct spraying could cause damage to the electronics and may void the warranty.

After Each Use - Wipe up any liquid spills immediately. After each workout, use a cloth to wipe up any remaining perspiration from the handrails and painted surfaces.

Be careful not to spill or get excessive moisture on the console and display overlays, as this might create an electrical hazard or cause failure of the electronics.

As Needed - Vacuum any dust or dirt that might accumulate under or around the unit. Cleaning this area should be done as often as indicated in the *Service Schedule*.

! WARNING: Keep wet items away from inside parts of the unit. Electrical shock could occur even if the unit is unplugged. Do not touch components on the lower board. A charge can remain after unplugging the power cord and turning off the unit.

To clean inside the unit, remove the four Phillips head screws securing the access cover in place. Use a vacuum attachment or hand vacuum to clean the exposed elevation assembly and remove dirt and debris off of internal components.

Use a *dry* cloth to wipe all exposed areas. Replace the access cover and secure it with the screws when finished.

Lift the rear of the unit and roll it back from its present position so as to vacuum the floor area underneath the unit. When finished, return the unit to its normal position.

Contact Heart Rate Grips - Contaminants, such as hand lotions, oils or body powder, may come off on the contact heart rate grips. These can reduce sensitivity and interfere with the heart rate signal. It is recommended that the user have clean hands when using the contact heart rate. Clean the grips using a cloth dampened with a cleaning solution containing alcohol. The grips are the only part of the unit you should use a cleaning solution containing alcohol.

Drive Belt Maintenance

There are two drive belts that may become loose, worn or cracked. See Figure 1.

Primary Belt - This is the wider of the two belts. It has grooves that keep it aligned on the large upper pulley. Unless the unit has been serviced and not put back together properly, it is *unlikely* that the primary belt will become loose because it is a stretch-fit belt.

Secondary Belt - This is the narrower of the two belts. It has grooves that keep it aligned on the flywheel's drive pulley. It is *unlikely* that the secondary belt will become loose because it is a stretch-fit belt. Unless the unit has been worked on and not put back together properly, it is *unlikely* the tension will change.

Follow this *Drive Belt Maintenance* procedure to ensure that the belts are tensioned properly and in good condition. See the *Service Schedule* in this chapter for a minimum schedule for checking the belt tension and condition. **NOTE:** *If a belt has cracks or appears worn, it must be replaced immediately by a qualified service technician.*

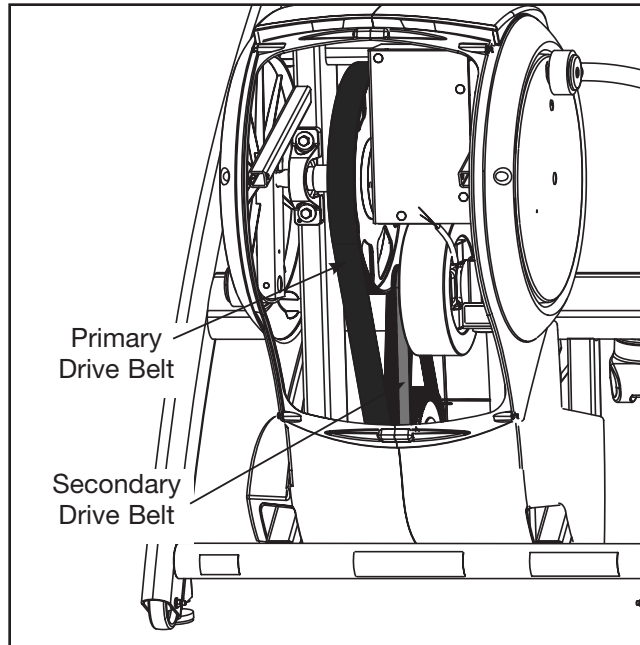


Figure 1

Tools Required

- Phillips head screwdriver

! WARNING: *Disconnect the power cord before beginning this procedure. Keep wet items away from inside parts of the unit. Electrical shock could occur even if the unit is unplugged.*

1. **Read and understand this *Drive Belt Maintenance* section thoroughly before proceeding to step 2.**
2. **Disconnect the external power source.**
 - A. If your unit has the optional AC Power Kit, Unplug the power cord from the power outlet.
3. **Remove the access cover.**
 - A. Using a Phillips screwdriver, remove the two lower screws securing the access cover.

- B. Remove the two upper screws securing the access cover. See Figure 2.
- C. Remove the access cover.

! WARNING: The flywheel may be hot. Wait until it cools before servicing.

- 4. **Check the condition of each belt.**
 - A. Roll each belt by pulling down on it. Examine the condition of each belt. If a belt has cracks or appears worn, it must be replaced immediately by a qualified service technician.
- 5. **Attach the access cover.**
 - A. Using a Phillips head screwdriver, tighten the two upper screws first (removed in step 3B). ***NOTE: Do not over tighten screws.***
 - B. Tighten the two lower screws, removed in step 3A. ***NOTE: Do not over tighten screws. See Figure 2.***
- 6. **Test unit for proper operation.**

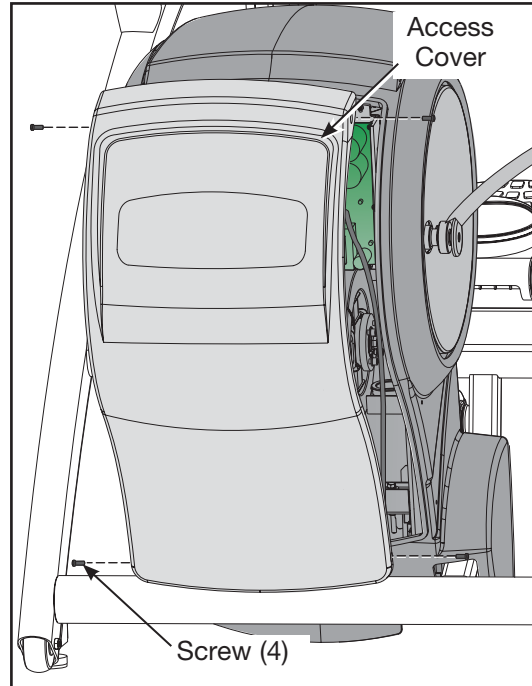


Figure 2

Lubrication

The Arc Trainer 620A/629A is designed with no-maintenance parts. Although there are grease fittings on the pillow blocks, re-lubrication of the bearings is not required.

Elevation Motor Lubrication - In time the elevation motor pivot points may develop a squeak. If a squeak is present, the unit will need to be serviced by a qualified service technician.

Environment

Static Electricity - Depending upon where you live, you may experience dry air, causing a common experience of static electricity. This may be especially true in the winter time. You may notice a static build-up just by walking across a carpet and then touching a metal object. The same can hold true while working out on your unit. You may experience a shock due to the build-up of static electricity on your body and the discharge path of the unit. If you experience this type of situation, you may want to increase the humidity to a comfortable level through the use of a humidifier.

Humidity - The unit is designed to function normally in an environment with a relative humidity range of 30% to 75%.

NOTE: *Do not install or use the unit in an area of high humidity, such as in the vicinity of a steam room, sauna, indoor pool or outdoors. Exposure to extensive water vapor, chlorine and/or bromine could adversely affect the electronics as well as other parts of the machine.*

Temperature - The unit is designed to function normally in an environment with an ambient temperature range of 50° F (10° C) to 104° F (40° C) degrees.


Storage

Humidity - The unit can be shipped and stored in an environment with a relative humidity range of 10% to 90%.

NOTE: *Do not store the unit in an area of high humidity, such as in the vicinity of a steam room, sauna, indoor pool or outdoors. Exposure to extensive water vapor, chlorine and/or bromine could adversely affect the electronics as well as other parts of the machine.*

Temperature - The unit can be shipped and stored in an environment with an ambient temperature range of 32° F (0° C) and 140° F (60° C) degrees.

Service Schedule

 **WARNING**


All maintenance activities shall be performed by qualified personnel. Failure to do so could result in serious injury.

Service Schedule

NOTE: This is the minimum recommended service.

NOTE: If using optional AC Power Kit, unplug unit from wall outlet.

Determine mileage.

1. Enter **Test Mode** by holding down any key for three seconds while pedaling the unit.
2. Then press 

First 500 Miles

- A** Check drive belts for tension & wear.

Every 5000 Miles

- A** Check drive belts for tension & wear.
- B** Move unit and vacuum underneath.
- C** Remove access cover to clean inside - use dry cloth & vacuum.

Every 20,000 Miles

- D** Check elevation assembly & replace worn parts.
- E** Lubricate elevation bushings.

Date	Mileage	Service	Initials

Rechargeable Battery

The 620A/629A Arc Trainer is designed with a 12 volt Lead-Acid rechargeable battery. The battery will recharge during regular operation of the unit. The battery will also be charged when the optional power adapter is plugged in.

The console indicates if the battery is charging by lighting up an LED next to the text 'charging'. The display will indicate dashes in the incline display if this battery should ever fail to provide enough energy. The unit will still function normally other than the disabling of the incline feature.

! WARNING: Battery replacement shall be performed by qualified service technician.

If the battery is completely discharged, the workout review will also be truncated if the user isn't pedaling during this time period. Contact Cybox Service to replace the battery or purchase the optional AC adapter kit to recharge the battery. See Chapter 6.

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5 - Setup and Assembly

Warnings/Cautions

All warnings and cautions listed in this chapter are as follows:

! WARNING: Use extreme caution when assembling the unit. Failure to do so could result in injury.

! WARNING: A minimum of two people are required to lift, move and assemble this unit. Always use proper lifting methods when moving heavy items.

! WARNING: Be sure that all electrical requirements are met as indicated in the specifications at the front of the manual and at the beginning of this chapter prior to proceeding.

! WARNING: Wait until all moving parts come to a complete stop before dismounting.

! CAUTION: A minimum of two people are required to assemble this unit.

Choosing and Preparing a Site

Before assembling the unit you must select a suitable site and have the proper electrical outlet power available for optimum operation and safety. See the Electrical Power Requirements section (located on the next page) for direction in locating your voltage requirements.

The area you select for the unit should be well lit and well ventilated. Locate the unit on a structurally sound and level surface. Allow enough clearance for safe access and passage during use of the unit. Allow a minimum of 5" (13 cm) behind the unit for the elevation to rise. If the unit is to be located above the first floor, place it near or above major support beams. To protect the carpeting, place a 3/4" (1.9 cm) thick wood base under the unit. Be sure to use the rubber foot covers shown on page 5-7.

Humidity - The unit is designed to function normally in an environment with a relative humidity range of 30% to 75%.

NOTE: *Do not install or use the unit in an area of high humidity, such as in the vicinity of a steam room, sauna, indoor pool or outdoors. Exposure to extensive water vapor, chlorine and/or bromine could adversely affect the electronics as well as other parts of the machine.*

Temperature - The unit is designed to function normally in an environment with an ambient temperature range of 50° F (10° C) to 104° F (40° C) degrees.

See Chapter 4 for information regarding storage of the unit.

Electrical Power Requirements

NOTE: The AC power kit is optional on the 620A/629A Arc Trainer.

Make sure that the unit is connected to an outlet having the same configuration as the plug. **NOTE:** Do not use a ground plug adapter to adapt the 3-prong power cord plug to a non-grounded electrical outlet.

NOTE: Use Cybox supplied AC power kit only. Consult an electrician if you have any questions.

Assembling the 620A/629A Arc Trainer

! WARNING: Use extreme caution when assembling the unit. Failure to do so could result in injury.

! CAUTION: A minimum of two people are required to assemble this unit.

Tools Required

- Phillips head screwdriver
- Torque wrench
- 7/32" Allen wrench (supplied) (2)
- 9/16" Open-end wrench

NOTE: The words "left" and "right" denote the user's orientation.

1. Read and understand all instructions thoroughly before assembling the unit.

NOTE: Each step number in the assembly instructions tells you what you will be doing. The lettered steps following each step number describe the procedure required. Do not continue with step 2 until you have carefully read all of the assembly instructions.

2. Verify you have received the correct package.

- A. Read the sticker on the outside of the box and verify that the model number and voltage are what you ordered.

3. Unpack and verify the contents of the boxes.

- A. Lift up and remove the cardboard sleeve that surrounds the unit.
- B. Verify that you have the color that you ordered by looking at the paint.
- C. If you ordered the optional AC power kit, verify that you have the correct power cord.

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D. Check to be sure that the following items are present. Check off (☑) each item as you find it. See Figure 1. If any of the parts are missing contact Cybox Customer Service.

Item	Qty	Part Number	Description
<input type="checkbox"/> 1	1	Varies	Base with covers attached
<input type="checkbox"/> 2	1	Varies	Console/handle assembly
<input type="checkbox"/> 3	1	PL-17209	Water bottle holder
<input type="checkbox"/> 4	2	11090-405	Foot pad (in box)
<input type="checkbox"/> 5	1	AW-19522	Power cord 115 VAC (optional)
<input type="checkbox"/> 5	1	AW-19521	Power cord 230 VAC (optional)
<input type="checkbox"/> 5	1	AW-19587	Power cord 100 VAC (optional)
<input type="checkbox"/> 5	1	EW600005	Power cord 220 VAC (optional)
<input type="checkbox"/> 6	1	NA	Hardware pack
<input type="checkbox"/> 7	1	5620A-X	Owner's Manual
<input type="checkbox"/> 8	1	620A-352	Assembly poster
<input type="checkbox"/> 9	1	600A-301	Warranty sheet

NA means Not Applicable

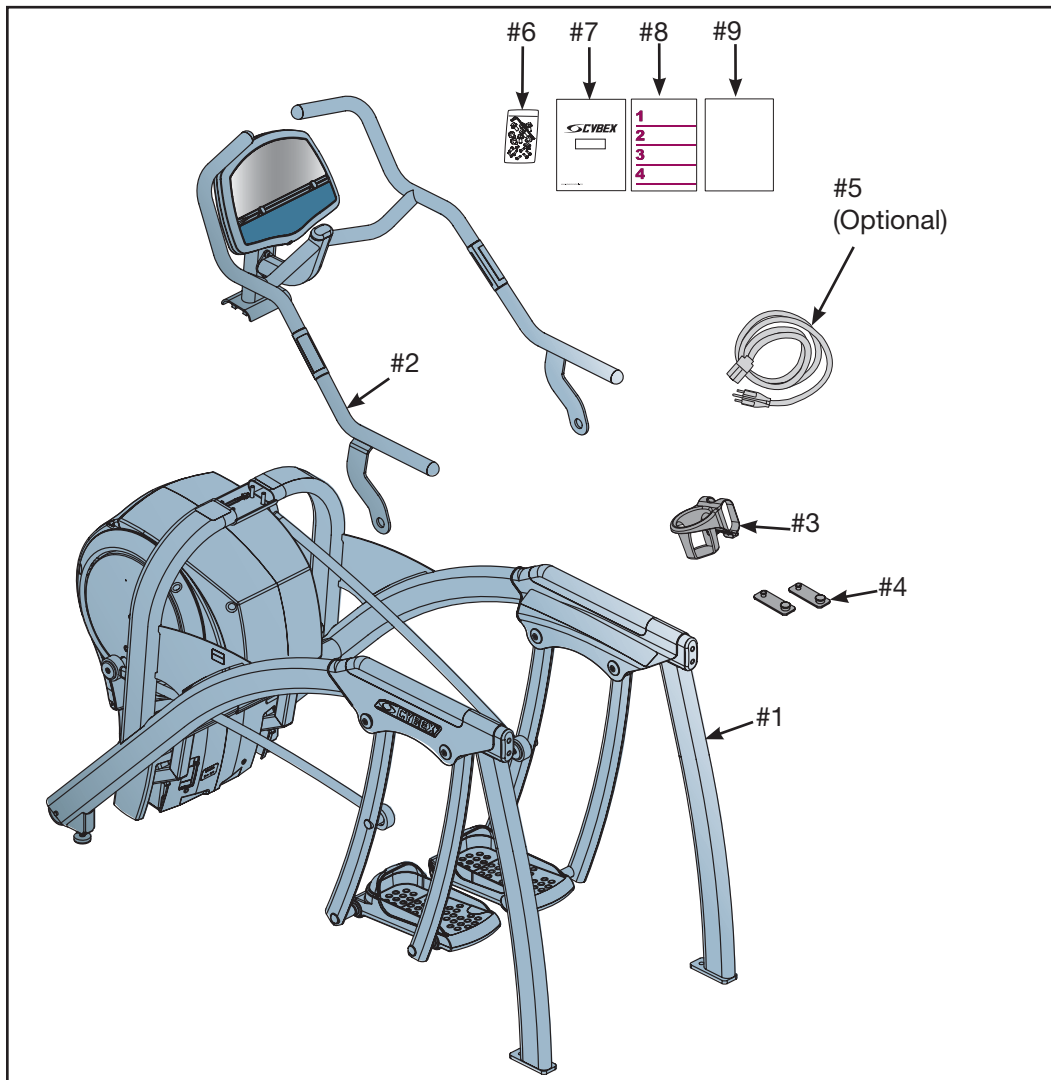


Figure 1

Cybex Arc Trainer 620A/629A Owner's Manual

E. Check off () each item in the hardware pack as you find it. See Figure 2.

Item	Qty	Part Number	Description
<input type="checkbox"/> 10	1	YA000201	Loctite
<input type="checkbox"/> 11	4	JC700422	BHSCS .375-16 x 1.50
<input type="checkbox"/> 12	2	HT552515	Pan HD Phil HD Self Tapping 8-16 x .75 Type WB Black
<input type="checkbox"/> 13	4	JS347400	Internal Tooth Lockwasher
<input type="checkbox"/> 14	2	BK030204	7/32" Allen wrench

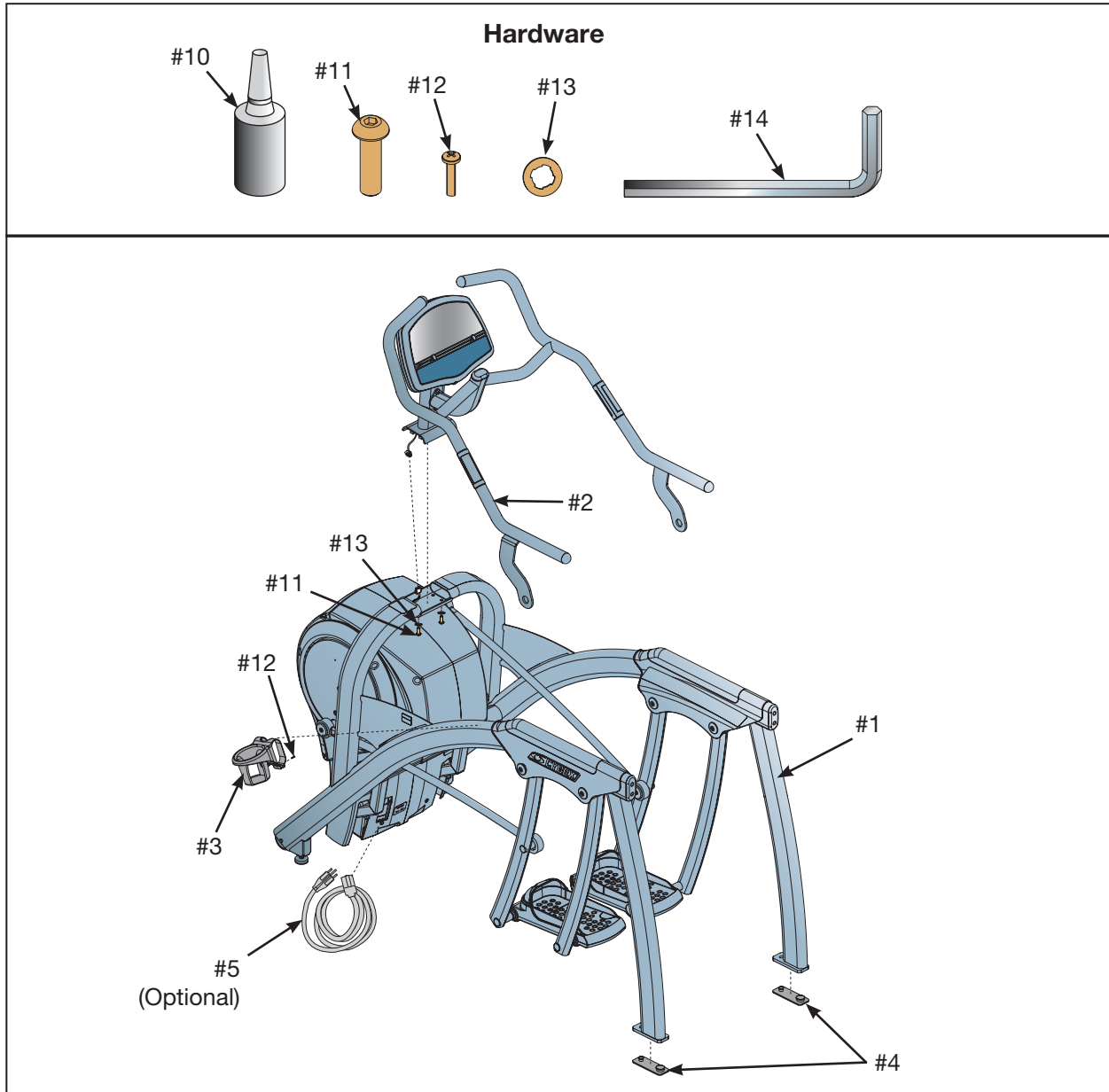


Figure 2

! CAUTION: A minimum of two people are required to lift, move and assemble the unit. Always use proper lifting methods when moving heavy items.

4. Lift and move the unit

- A. Carefully remove lag bolts and shipping supports.
- B. With one person on each side firmly grasp each rear foot.
- C. Using proper lifting methods, lift the rear feet so that the front transport wheels are able to roll on the floor.
- D. Move or roll the unit to the location where you intend to leave it.
- E. Carefully lower the rear feet so that the unit is in the intended location.

5. Remove the Left and Right Front Outside Pivot Shaft Retainers and Screws.

- A. Locate the left front outside pivot shaft retainer and BHSCS on main frame.
- B. Using a 7/32" Allen wrench (#14) remove the left screw .375-16 x 1.00 and pivot shaft retainer from the main frame and set aside. See Figure 3.
- C. Repeat steps 5A and 5B for the right front screw and pivot shaft retainer.

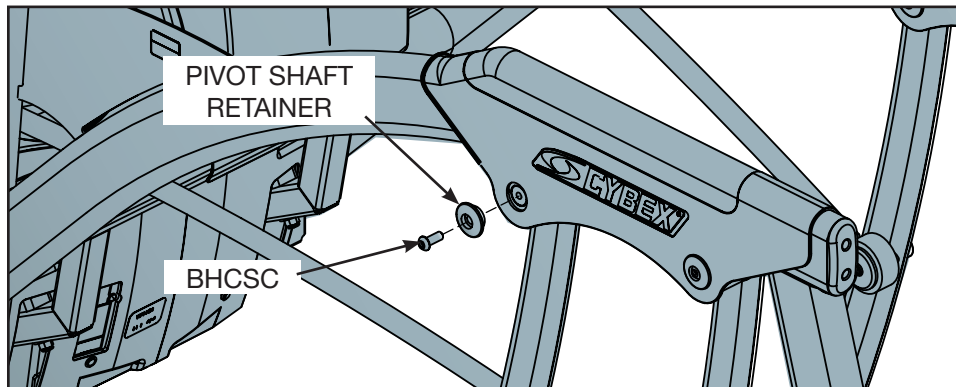


Figure 3

6. Attach the Console/Handle Assembly.

NOTE: If installing the Cybex Personal Entertainment Monitor Option refer to page 5-11 for installation instructions.

- A. Locate the console/handle assembly (#2), four BHSCS .375-16 x 1.50 (#11) and four washers (#13).
- B. Locate the upper display cable and plug it into the lower display cable in the main frame assembly. See Figure 4.

NOTE: Ensure cable connectors are securely fastened.

C. Place the console/handle assembly (#2) in the correct position on the main frame assembly. See Figure 4.

D. Attach the console/handle assembly using the four washers (#13) and four screws .375-16 x 1.50 (#11) as shown in Figure 4. **NOTE:** Do not securely fasten screws at this time.

NOTE: Confirm that no cables are pinched lowering the console.

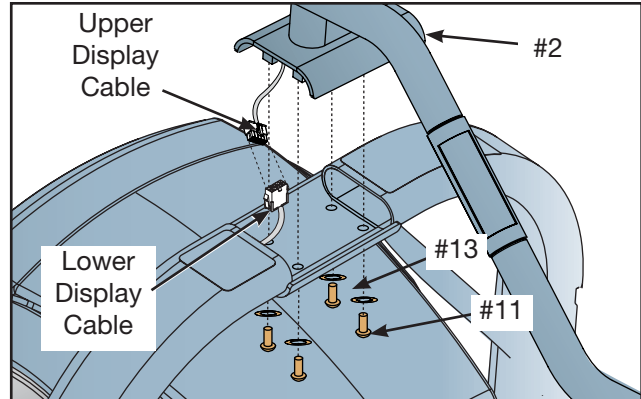


Figure 4

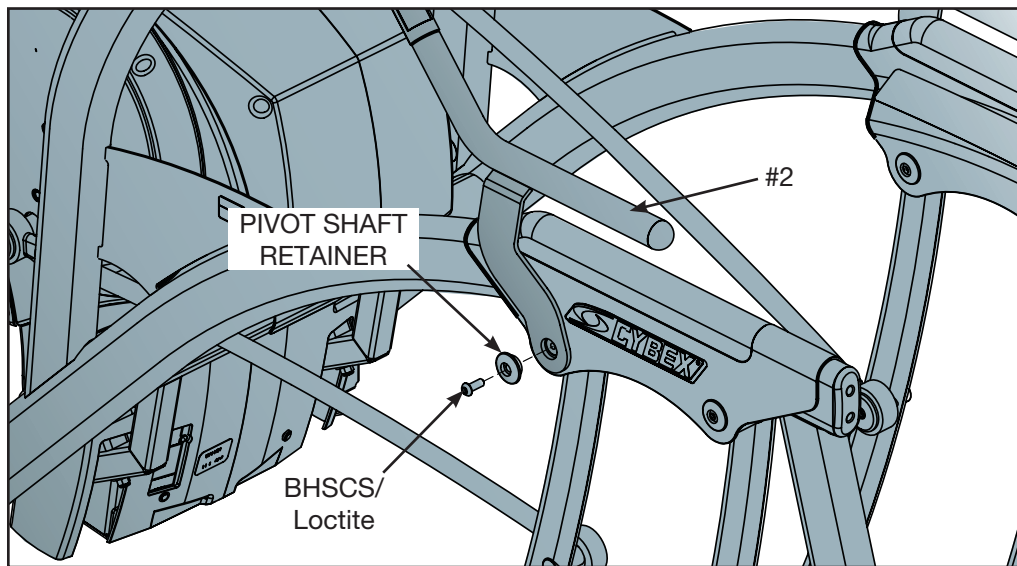


Figure 5

E. Place the lower left console/handle assembly support (#2) in the correct position on the main frame assembly. See Figure 5.

F. Apply a drop of loctite to threads of BHSCS .375-16 x 1.00 removed in step 5B and place another drop of loctite into the shaft (where the BHSCS will be threaded into).

G. Reattach left pivot shaft retainer (removed in step 5B) using the BHSCS/loctite. See Figure 5.

H. Repeat steps 6E and 6F for right side.

I. Securely fasten the BHSCS attached in steps 6D and 6G using the 7/32" Allen wrench (#14) provided. **NOTE:** Torque the BHSCS in Figure 5 to 150 inch pounds minimum. Ensure the mounting plate is tight against bearing with no side play allowed.

7. Attach the water bottle holder.

- A. Hold the water bottle holder (#3) with two hands and gently pull outward and continue to pull (hold open) during step 7B. See Figure 6.
- B. Place the water bottle holder (#3) over the frame with the larger side outside of the frame as shown in Figure 6.

NOTE: Water bottle holder may be placed on either side.

- C. Using a Phillips head screwdriver, attach the water bottle holder (#3) to the frame with the two 8-16 x 0.75 screws (#12). See Figure 7. **NOTE:** Do not overtighten.

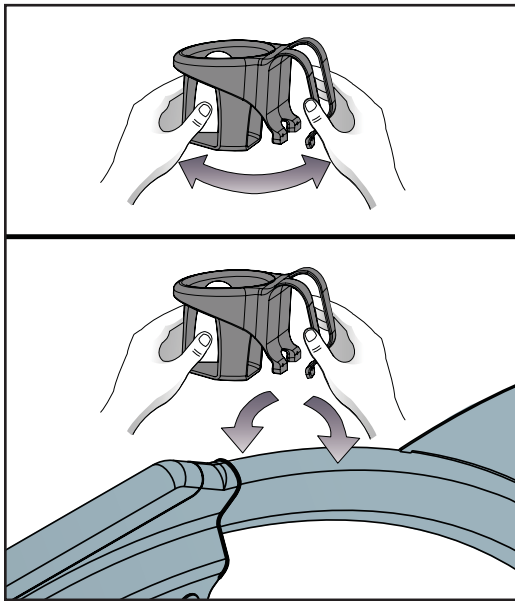


Figure 6

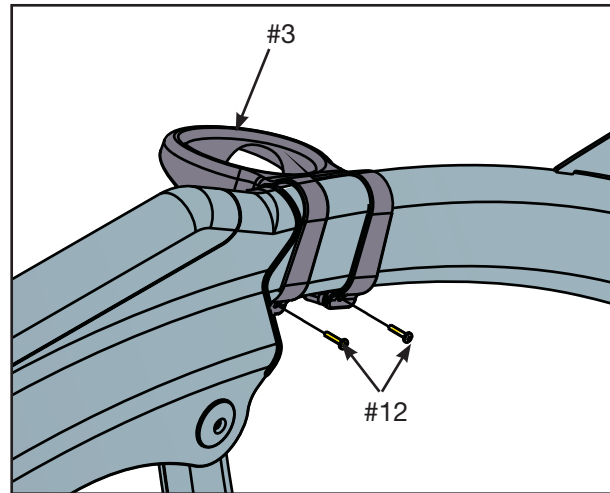


Figure 7

8. Attach the foot covers.

- A. Have one person lift the unit while a second person places a foot cover (#4) under each of the two back feet. See Figure 8.

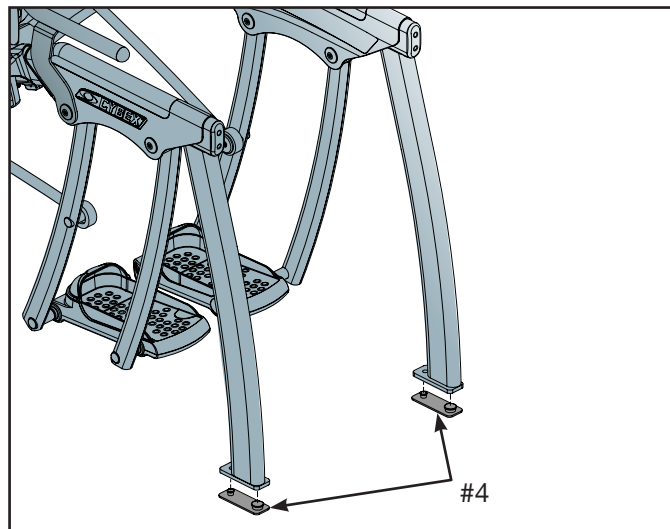


Figure 8

9. Level the unit.

- A. Confirm that the unit is on a level surface. If it is not, use a 9/16" open-end wrench to adjust the leveling feet up or down. See Figure 9.

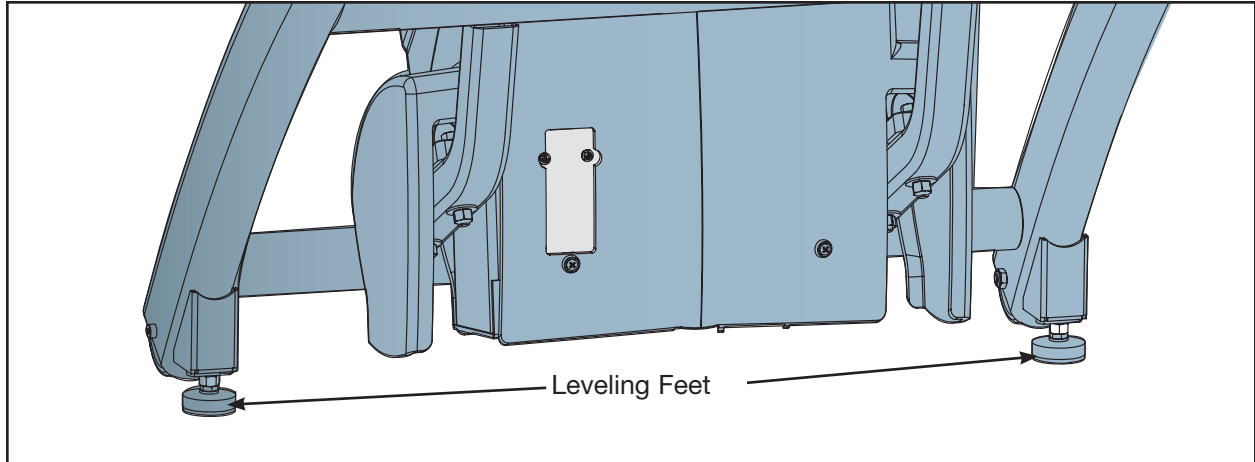


Figure 9

10. Connect the optional power cord.

NOTE: The power cord is included in the optional AC power kit.

- A. Plug the optional power cord (#5) into the inlet. **NOTE:** Do not plug the power cord into an outlet at this time. See Figure 10.

11. Visually inspect the unit.

- A. Carefully remove any package material from arms and rest of unit.

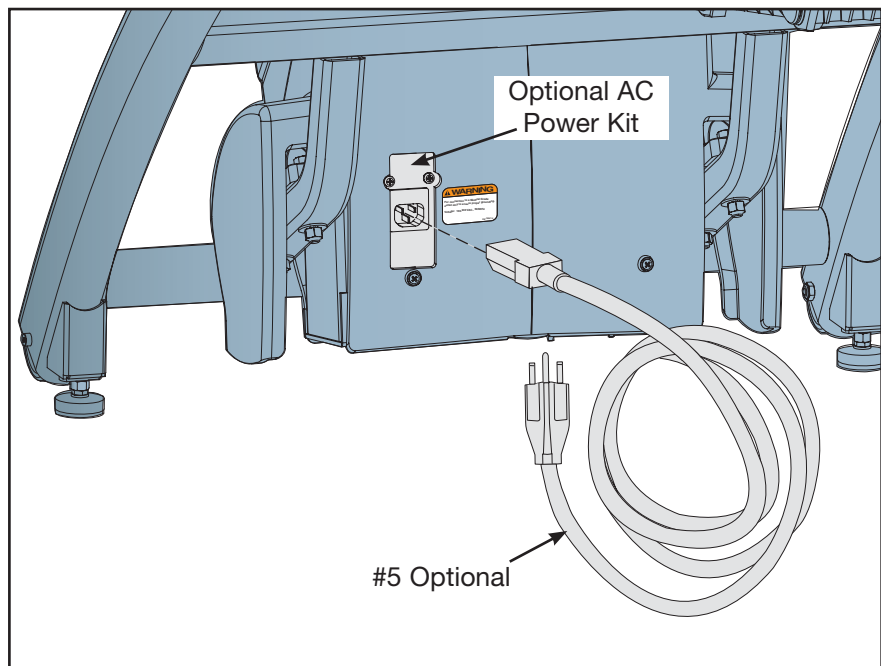


Figure 10

- B. Carefully examine the unit to ensure that the assembly is correct and complete.

! WARNING: Be sure that all electrical requirements are met as indicated in the specifications at the front of the manual and at the beginning of this chapter prior to proceeding.

Testing the Operation

Use the following instructions to test the full resistance and incline range of the unit.

1. Plug the optional power cord into a power outlet from a grounded circuit as described under Electrical Requirements in this chapter. **NOTE:** *Coil up the remainder of the power cord and place it out of the way.*
2. Observe that the control panel will illuminate and be in the Dormant Mode when using the optional power adapter.

NOTE: *If you are not using the optional AC power kit, the display will not illuminate until step 4.*

3. Hold the handrails to steady yourself while you step into the pedals.
4. Begin pedaling.
5. Press the **Quick Start** key.
6. Run the unit through its full resistance range. First press the **Resistance +** key until the unit reaches its highest load (the display will show "100"). Then press the **Resistance -** key until the unit reaches its lowest load; the display will show "0". As you stride, you will feel the resistance change.

NOTE: *When the unit reaches the set incline and resistance, the displays will stop flashing and remain steadily illuminated to indicate that the desired settings have been reached.*

7. Run the unit through its full incline range. First press the Incline **↑** key until the unit reaches its highest incline (the display will show "10"). Then press the Incline **↓** key until the unit reaches its lowest incline (the display will show "0").

! WARNING: Wait until all moving parts come to a complete stop before dismounting.

8. Press **Pause/end** twice to bring the incline back to its start position, end the workout review, and return the display to *Dormant Mode*.
9. Wait until foot plates come to a complete stop before dismounting the unit. Hold the handrails to steady yourself while you step off the unit.

Setting Operation Options

NOTE: If using optional AC Power Kit, unplug unit from wall outlet.

1. Enter Test Mode by holding down any key for three seconds while pedaling the unit. The display will read "SArc".

NOTE: After changing any value, you must press **Enter** to save that value. When you press enter the display will read "updt" (updated) to confirm your selection.

2. Press the **Weight** key to set options, change values with ▲ and ▼ keys and press **Enter** to save your selection. Each time you press **Weight** the next set of data is displayed in the following order.

Unit - Choices are "Eng" (English) or "Euro" (metric) measurements. English is the default.

Scan - This turns on or off the data readout scan (unless a specific data key is pressed during a workout). Default is on.

Def - This is the default time for time based programs if a user doesn't re-set **Time**. For example, if you press **Time** you can decrease or increase the set workout time up to the amount that the **Max** time is set. Choices (in minutes) include: 20, 30, 40, 50 and 60. Default is 20.

Max - This is the maximum amount of time the unit can run per use. You can limit the users time or choose "none" for unlimited time. Choices (in minutes) include: 20, 30, 40, 50, 60, 90, 120 and "none" for no time limit. Default is 60.

Idle (or Workout Review): - This is how long the unit retains and displays your current workout data during a pause in the workout or after a workout. Choices include: 20 seconds; 30 seconds; 40 seconds; 1 minute and 5 minutes; default is 20 seconds.

PD (Presence Detect) — This is how long the Arc will continue your workout session if the user steps off the pedals or stops moving. Choices are between 5 and 60 seconds. Default is 5 seconds. **NOTE:** See *Presence Detect* in Chapter 3 for further detail.

Remember: You must press **Enter** after changing a value for that value to be stored.

3. To exit Test Mode press the **Pause/end** key once.

Your unit is now ready for use. Follow the instructions in the Operation chapter to learn how to operate the unit.

! Warning: To prevent injury, this apparatus must be securely attached to the equipment in accordance with these installation instructions.

Cybex Personal Entertainment Monitor - Optional

Tools Required

- 3 mm Allen wrench (supplied with unit)
- 7/32" Allen wrench (supplied with unit)

1. Please read instructions thoroughly before beginning.

2. Verify the kit contents shown in Figure 11.

- A. Console with monitor mount (1), 620A-220
- B. Coax and power cables (1), 630A-104 (in Arc frame)
- C. Strain relief bushing (1), PP740000
- D. 3 mm Allen wrench (1), BK030210
- E. Poster (1), 620A-387 (not shown)
- F. Warranty sheet (1), LT-20219 (not shown)
- G. Cable Tie (2), EW000028

3. Verify the monitor kit contents shown in Figure 12.

- H. Monitor (1), EE000005 or EE000007
- I. Remote control (1), EM000000
- J. Batteries, Remote control, AAA size (2), N/A
- K. Screws, Mounting, M4 x 0.7 x 10 mm (4), HC692860
- L. Washers, External Lock (4), HS047300
- M. Washers, Flat, M4 (4), HS097600
- N. AC/DC Adapter (1), ET300038
- O. Power cord, 115 VAC 60 Hz. (Country specific cords supplied with product). (1), EW600000
- P. Personal Entertainment Monitor Manual (1), LT-20191

4. Installing the coax and power cables in the console mount.

- A. Lay the console mount on the Arc Trainer as shown in Figure 13. **NOTE:** This will allow easier access to route the cable assembly.

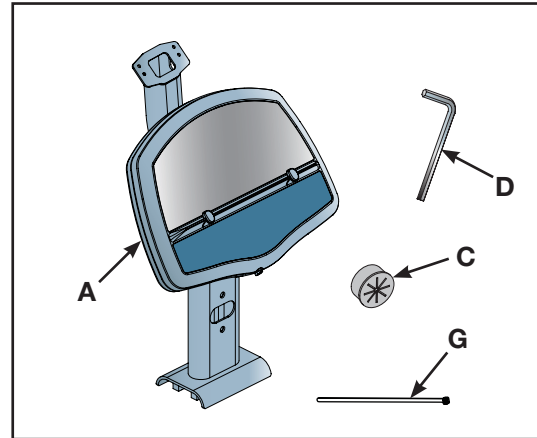


Figure 11

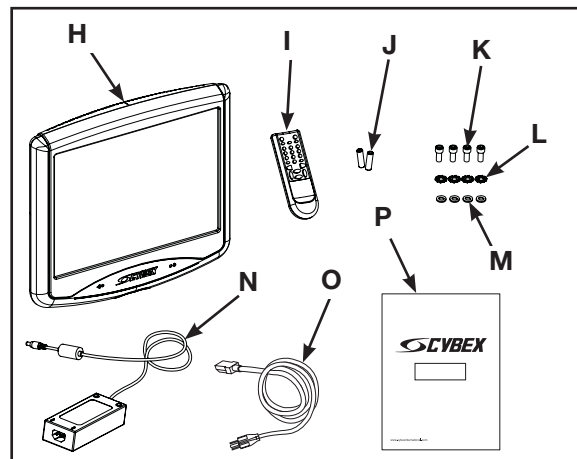


Figure 12

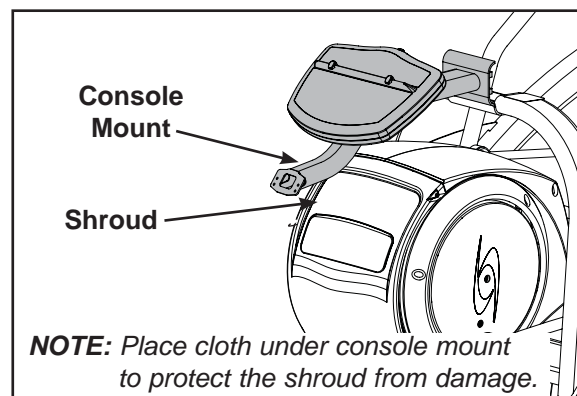


Figure 13

- B. Locate the coax and power cables exiting the top of the Arc frame.
- C. Insert the coax and power cables into the bottom of the console mount until 8" (20 cm) of cable exits the top. See Figure 14.

NOTE: Exactly 8" (20 cm) of cable must exit the top of the monitor mount.

5. Attach the Console Assembly.

- A. Locate the console assembly, four BHSCS (Button Head Socket Cap Screw) and four lockwashers.
- B. Plug the upper display cable into the lower display cable in the main frame assembly. See Figure 15.

NOTE: Ensure cable connectors are securely fastened.

- C. With 8" of coax and power cables exiting the top of the console assembly, pull the extra coax and power cables out of the bottom of the main frame.
- D. Attach the console assembly to the main frame using the four lockwashers and four BHSCS as shown in Figure 15.

NOTE: Confirm that no cables are pinched lowering the console.

NOTE: Do not securely fasten screws at this time.

6. Installing Handrail Assembly to the Console Assembly.

- A. Plug the heart rate cable connector from the console assembly to the heart rate connector from the handle assembly. See Figure 16.
- B. Using a 7/32" Allen wrench, attach the two BHSCS securing the handle assembly to the console assembly. See Figure 16.

- C. Continue on with step 6E on page 5-6.

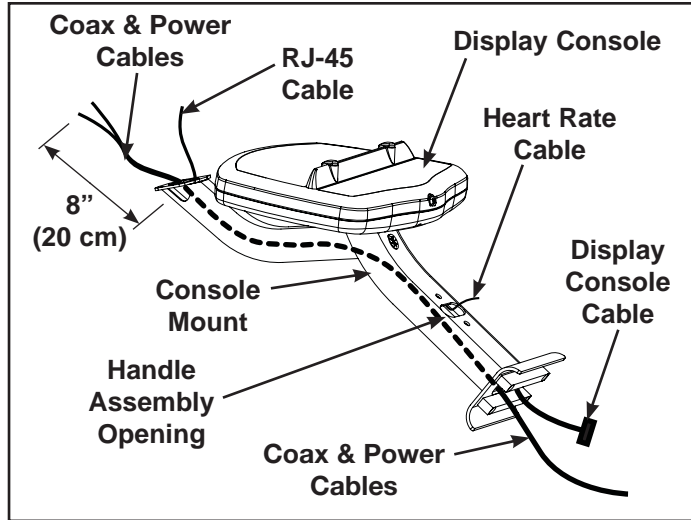


Figure 14

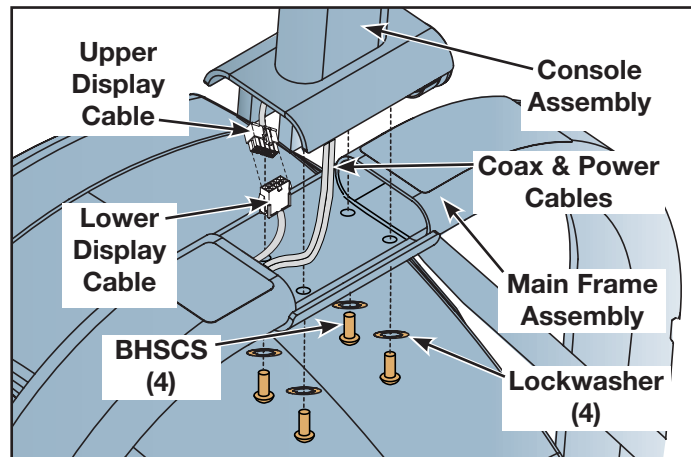


Figure 15

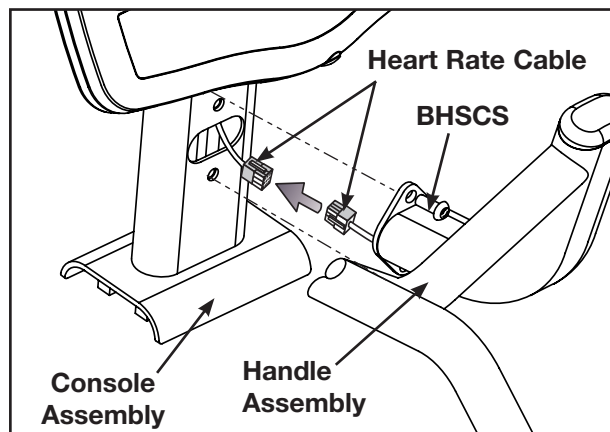


Figure 16

7. Install monitor.

- A. Locate monitor (H), four mounting screws (K), four lock washers (L) and four flat washers (M).
- B. Remove the back cover from monitor (H) by pressing the bottom tabs of the cover in and rotating out. See Figure 17.
- C. Insert the power cable end of (B) through hole on left side of monitor mount. See Figure 18.
- D. Insert the RJ-45 cable and the coax cable end of (B) through hole on right side of monitor mount. See Figure 18.

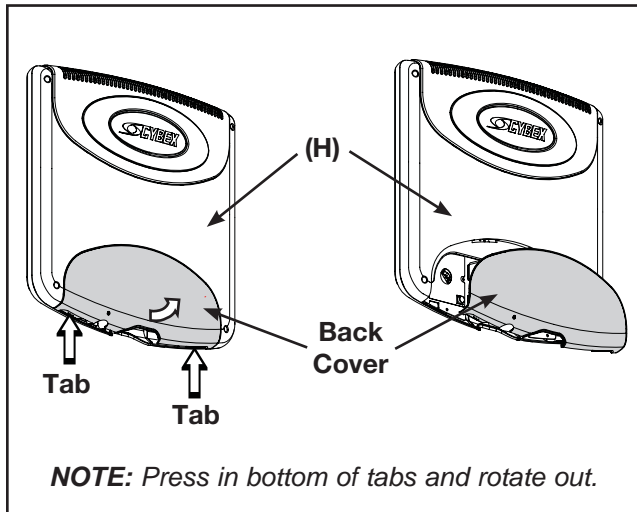


Figure 17

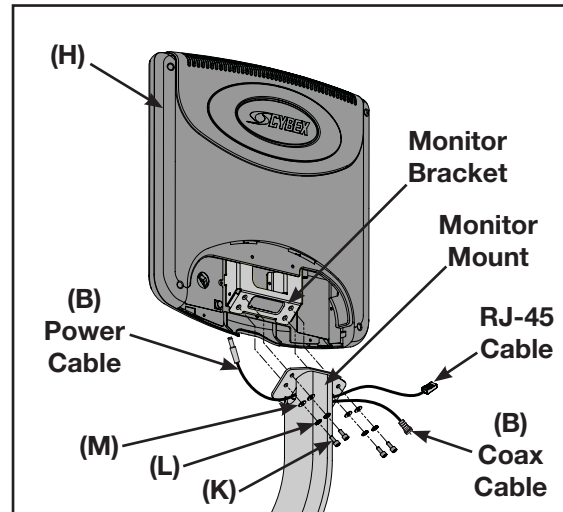


Figure 18

- E. Using a 3 mm Allen wrench secure the monitor bracket to the monitor mount using the four mounting screws (K), four lock washers (L) and four flat washers (M). See Figure 18.
- F. Insert the power cable, coax cable and RJ-45 cable into the monitor as shown in Figure 19. **NOTE:** Use of the CSAFE port is optional and requires a CSAFE cable and device.

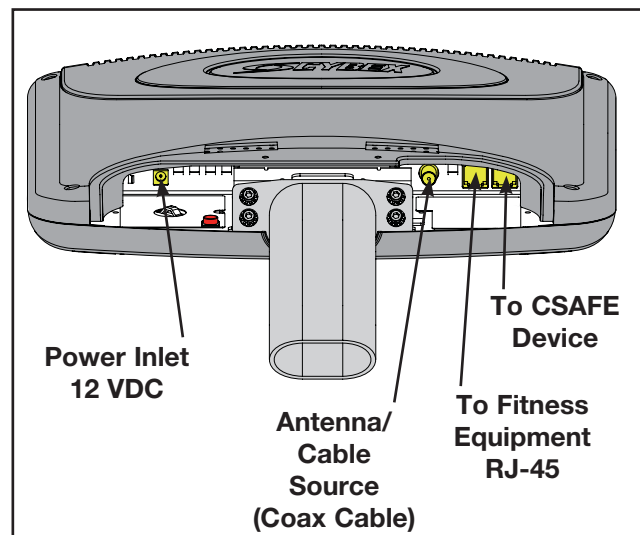


Figure 19

G. Secure the power cable to the monitor plate using the cable tie (G). See Figure 20.

H. Install the back cover to the monitor (H). See Figure 21.

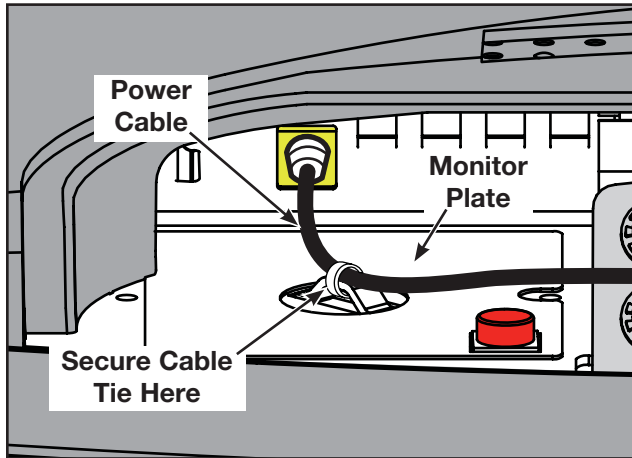


Figure 20

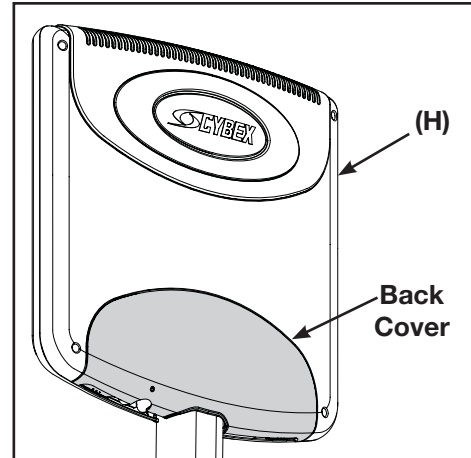


Figure 21

8. Plug in AC/DC Adapter and coax cables.

- A. Locate the AC/DC adapter (N) supplied with the monitor and plug into the power cable exiting the base of the Arc.
- B. Plug the power cord (O) into the AC/DC adapter (N). **NOTE:** Power cord (O) varies by country.
- C. Thread the antenna/cable source cable (supplied at the site location) into the coax cable exiting the base of the Arc.

9. Set up monitor for first time use.

- A. Locate the personal entertainment monitor manual (LT-20191) and follow the set up procedure in Chapter 5.
- B. Plug the power cord (O) into a wall outlet.
- C. Plug headphones (not supplied) into headphone jack located at base of console.
- D. Refer to Chapter 3 of the personal entertainment monitor manual (LT-20191) regarding use of the channel and volume keys located on the lower center of the Arc console. See Figure 22.

10. Continue on with Step 7 on page 5-7.

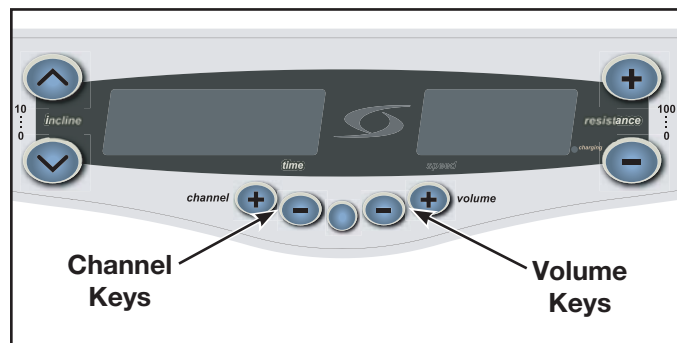


Figure 22

6 - Customer Service

Contacting Service

Hours of phone service are Monday through Friday from 8:30 a.m. to 6:00 p.m. Eastern Standard Time.

For Cybox customers living in the USA, contact Cybox Customer Service at **888-462-9239**.

For Cybox customers living outside the USA, contact Cybox Customer Service at **508-533-4300** or fax **508-533-5183**.

Find information on the web at www.cyboxinternational.com or by e-mail at techhelp@cyboxintl.com.

Serial Number and Voltage

Your serial number and voltage can be found on the front of the unit. See Figure 1.

For your convenience record your serial number and voltage below so that you will have it ready if you call Cybox Customer Service.

Serial Number _____ Voltage _____

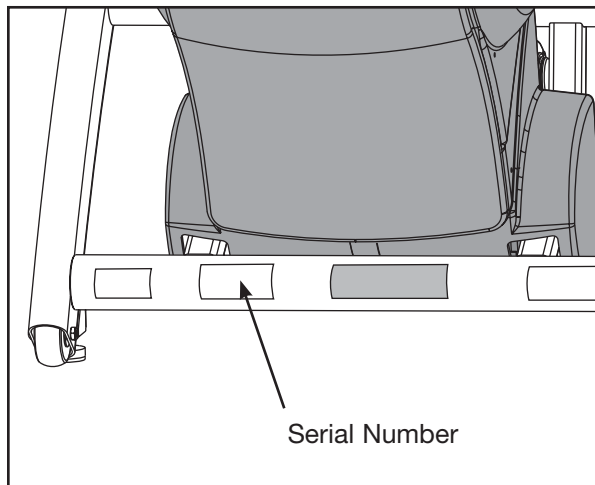


Figure 1

Return Material Authorization (RMA)

The Return Material Authorization (RMA) system outlines the procedures to follow when returning material for replacement, repair, or credit. The system assures that returned materials are properly handled and analyzed. Follow the following procedures carefully.

Contact your authorized Cybex dealer on all warranty-related matters. Your local Cybex dealer will request an RMA from Cybex, if applicable. Under no circumstances will defective parts or equipment be accepted by Cybex without proper RMA and an Automated Return Service (ARS) label.

1. Call the Customer Service hotline listed on Page 6-1 for the return of any item that is defective.
2. Provide the technician with a detailed description of the problem you are having or the defect in the item you wish to return.
3. Provide the model and serial number. *The serial number is located on the front of the unit as shown in Figure 1.* The serial number begins with a letter, for example: R09-101331100.
4. At Cybex's discretion, the technician may request that you return the problem part(s) to Cybex for evaluation and repair or replacement. The technician will assign you an RMA number and will send you an ARS label. The ARS label and RMA number must be clearly displayed on the outside of the package that contains the item(s) to be returned. Include a description of the problem, the serial number of the unit and the name and address of the owner in the package along with the part(s).
5. Forward the package through UPS to Cybex.
Attn: Customer Service Department
Cybex International, Inc.
1975 24th Ave SW
Owatonna, MN 55060

NOTE: *Merchandise returned without an RMA number on the outside of the package or shipments sent C.O.D. will not be accepted by the Cybex receiving department.*

Damaged Parts

Materials damaged in shipment should not be returned for credit. Shipping damages are the responsibility of the carrier (UPS, Federal Express, trucking companies, etc.).

Apparent Damage - Upon receipt of your shipment, check all boxes carefully. Any damage seen with a visual check must be noted on the freight bill and signed by the carrier's agent. Failure to do so will result in the carrier's refusal to honor your damage claim. The carrier will provide you with the required forms for filing such claims.

Concealed Damage - Damage not seen with a visual check upon receipt of a shipment but noticed later must be reported to the carrier as soon as possible. Upon discovery of the damage, a written or phone request to the carrier asking them to perform an inspection of the materials must be made within ten days of the date of delivery. Keep all shipping containers and packing materials: they will be needed as part of the inspection process. The carrier will provide you with an inspection report and the necessary forms for filing a concealed damage claim. Concealed damage is the carrier's responsibility.

Ordering Parts

Fax orders to **508-533-5183**. To speak with a customer service representative, call **888-462-9239** (for customers living within the USA) or **508-533-4300** (for customers outside the USA).



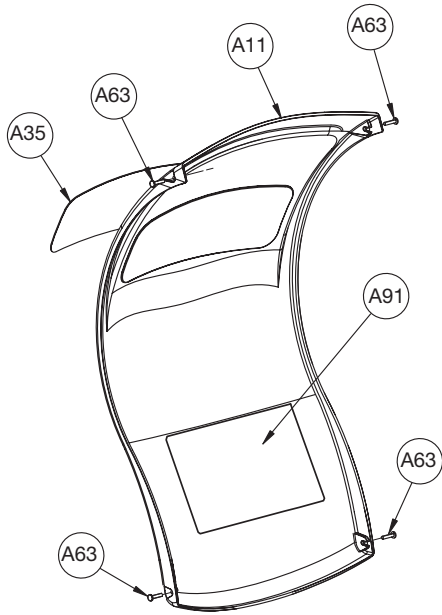
Cyber Arc Trainer 620A/629A Owner's Manual

Main Assembly

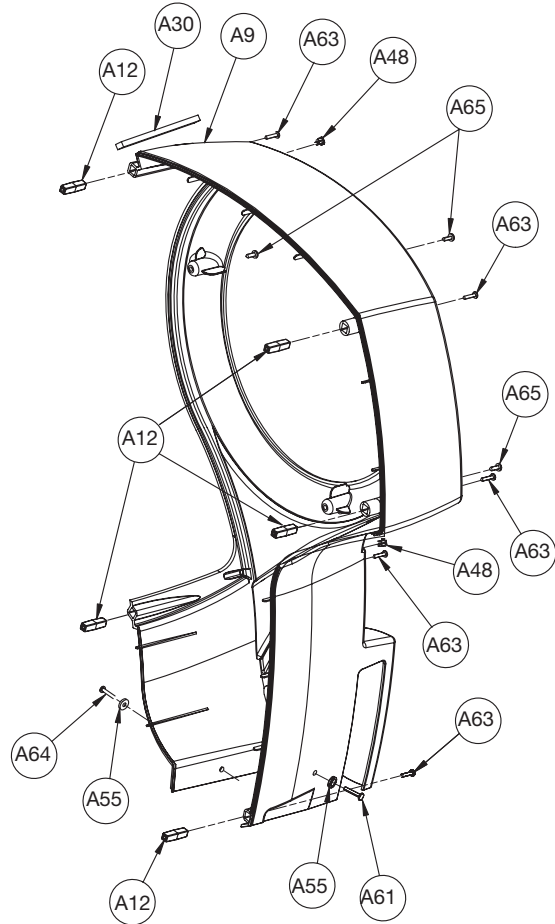
ITEM	QTY	PART NO.	DESCRIPTION	ITEM	QTY	PART NO.	DESCRIPTION
A1	2	11090-404	DECAL, CYBEX	A58	2	HS328300	LOCKWASHER SPLIT .312
A2	2	11090-405	FOOT PAD	A59	10	HS347700	WASHER, USS .375
A3	1	600A-200	WELDMENT, LINKAGE ROD RIGHT	A60	4	HS427100	WASHER, SPRG .760 1.000 .136
A4	1	600A-201	WELDMENT, LINKAGE ROD LEFT	A61	2	HT512517	TAP SC 10-24 X 1.00 TYPE WB PN
A5	1	600A-301	WARRANTY SHEET ARC				HD PHIL BLK
A6	4	600A-311	SPACER, FLANGE	A62	8	HT552512	PAN HD PHIL HD SELF TAPPING,
A7	2	600A-331	COVER, CRANK				8-16 x .50 TYPE WB
A8	1	600A-332	COVER, ELEVATION MOTOR	A63	16	HT552515	PAN HD PHIL HD SELF TAPPING,
A9	1	600A-333	COVER, RIGHT				8-16 x .75, TYPE WB BLACK
A10	1	600A-334	COVER, LEFT	A64	2	HT552516	PN HD PHIL SC # 8 X .875 BLK
A11	1	600A-335	COVER, FRONT ACCESS	A65	8	HT572512	TAP SC NO. 10-24 X .50 PN HD PHIL
A12	5	600A-336	INSERT, COVER	A66	2	HX-16751	CAP, FRAME TUBE
A13	1	600A-362	LABEL, BIOSIG PATENT	A67	4	PP080229	PLUG, TUBE END 1.50 TUBE OD
A14	1	610A-201	FOOT PLATE ARM, LR	A68	2	HX-17023	PIN, SPRING .1875 x .75 LG, TYPE 420
A15	1	610A-202	FOOT PLATE ARM, RR	A69	4	HX-17143	RING RETAINING, INTERNAL, .500-168
A16	1	610A-303	COVER, PIVOT RH	A70	8	HX622815	SHCS .250-20 UNC-3A SS
A17	1	610A-304	COVER, PIVOT LH	A71	8	HX700415	BHSCS .375-16 X .75 SS, 620A ONLY
A18	6	610A-311	RETAINER, PIVOT SHAFT	A71	24	HX700415	BHSCS .375-16 X .75 SS, 629A ONLY
A19	4	610A-342	PIVOT PIN	A72	2	HX700417	BHSCS .375-16 X 1.00 SS
A20	4	610A-357	TUBE, SPACER	A73	4	JC700422	BHSCS .375-16 X 1.50
A21	2	610A-377	RETAINER, PIVOT SHAFT	A74	2	JD623324	BOLT, SHOULDER .312 x 1.75
A22	2	610A-395	ASSY, ARM CRANK				.250-20 UNC
A23	1	620A-200	MAIN FRAME 620A	A75	4	JS347400	LOCKWASHER, INT TOOTH .375
A23	1	629A-200	MAIN FRAME 629A	A76	1	MR-18446	MOTOR, ELEVATION, 12 VDC
A24	1	620A-201	C HANDLE 620A	A77	4	PL-16535	CAP, LINKAGE ROD, 2.00 OD
A25	1	620A-203	FOOT PLATE ARM, LF	A78	1	PL-17209	WATER BOTTLE HOLDER
A26	1	620A-204	FOOT PLATE ARM, RF	A79	4	PL-17279	SPACER, SHAFT, FOOT PLATE
A27			REMOVER 4/07	A80	2	PP080202	INSERT, PLASTIC, 1.19 DIA-11 GA
A28	1	620A-352	POSTER, INSTALLATION	A81	1	PP130003	INSERT, DOMED PLASTIC
A29	1	630A-101	DRIVE FRAME ASSEMBLY	A82			REMOVED 4/07
A30	2	630A-317	FOAM, .25 X .38	A83	1	619A-201	REAR LEG RH, 629A ONLY
A31	2	AF-16694	ASSY, BEARING, 1.00 INCH PILLOW BLOCK	A84	1	619A-202	REAR LEG LH, 629A ONLY
A32	1	AW-18439	HARNES, SPA FRAME	A85	1	AW-19521	POWER CORD 230 VAC (OPTIONAL)
A33	2	CM000243	LABEL, BLANK CALIBRATION	A85	1	AW-19522	POWER CORD 115 VAC (OPTIONAL)
A34	2	CW-17231	WHEEL, TENSIONER	A85	1	AW-19587	POWER CORD 100 VAC (OPTIONAL)
A35	1	DE-17317	DECAL, LOGO ARC TRAINER	A85	1	EW600005	POWER CORD 220 VAC (OPTIONAL)
A36	2	DE-17339	DECAL, CYBEX VORTEX	A86	1	5620A-x*	OWNER'S MANUAL (NOT SHOWN)
A37	1	DE-19561	LABEL, ETL MEDICAL	A87	1	610-349-x*	WARNING DECAL
A38	4	FB030244	BEARING, RADIAL BALL .50 ID X 1.688 OD	A88	1	DE-17218-x*	HEART RATE ZONE DECAL
A39	8	FB030247	BEARING, RADIAL 25MM EXTENDED RACE	A89	2	DE-17219-x*	CAUTION DECAL
A40	4	FC030004	TOLERANCE RING 42 (1.653) ID	A90	1	DE-19561	ETL LABEL
A41	8	FC030007	TOLERANCE RING 2.047 ID	A91	1	DE-19592	SERVICE SCHEDULE & ERROR CODE
A42	1	FT-17242	SLEEVE, ELEVATION MOUNTING, TOP	A92	1	DE-19547-x*	DECAL, MEDICAL INLET
A43	1	FT-17243	SLEEVE, ELEVATION MOUNTING, BOTTOM	A93	1	610A-300	RIGHT FOOT PLATE (BLACK)
A44	8	HB-17036	BEARING, BALL, .750 DIAMETER	A93	1	610A-390	RIGHT FOOT PLATE (YELLOW)
A45	3	HC701226	BOLT, HHCS .375-16 x 2.0	A94	1	610A-301	LEFT FOOT PLATE (BLACK)
A46	1	HC701230	SCREW, HHCS .375-16 x 2.50	A94	1	610A-391	LEFT FOOT PLATE (YELLOW)
A47	4	HC701234	SCREW, HHCS .375-16 x 3.00	A95	2	610A-302	TOE CAP (BLACK)
A48	4	HF540200	GROMMET, NYLON	A95	2	610A-392	TOE CAP (YELLOW)
A49	2	HG700022	LEVELING GLIDE, .375-16	A96	1	620AK002	HEART RATE GRIP KIT W/O DRILL BITE
A50	8	HM582514	SCREW, PAN HEAD PHILPIPS 10-32 x .62 BLK	A96	1	620AK007	HEART RATE GRIP KIT W/ DRILL BITE
A51	2	HN624901	LOCKNUT, .250-20 NYLON BLK ZN	A97	2	610A-397	CAUTION DECAL (T/A OPTION ONLY)
A52	2	HN704000	HEX NUT .375-16	A98	1	CM000240	WARNING DECAL
A53	4	HN704901	LOCKNUT, .375-16 NYLON	A99	1	620A-121	CONSOLE MOUNT
A54	2	HN704902	LOCKNUT, .375-16 NYLON	A100	4	HS307400	LOCKWASHER, INT TOOTH .250 SS
A55	6	HS100000	WASHER, NO. 10 NYLON	A101	4	HX620420	BHSCS .250-20 X 1.250 SS
A56	4	HS307601	WASHER, FLAT .281 ID X .500 OD X .062 T	A102	1	620A-122	CONSOLE MOUNT W/AV OPTION
A57	4	HS307602	WASHER FLAT .281 ID X 1.000 OD. X .063 TH	A103	1	EC-18267	BATTERY 12 VDC (NOT SHOWN)
				A104	2	610A-407	TOP SENSOR GRIP (BLACK)
				A104	2	610A-409	TOP SENSOR GRIP (YELLOW)
				A105	2	610A-408	BOTTOM SENSOR GRIP (BLACK)
				A105	2	610A-410	BOTTOM SENSOR GRIP (YELLOW)
				A106	4	HT532517	TAP SC #6 X 1.00, TYPE 25, PPHD
				A107	1	AW-19870	HEART RATE CABLE
				A108	1	610AK023	TOTAL ACCESS CONVERSION KIT
				A109	1	630A-351	WEEE SYMBOL DECAL

***Language Key**

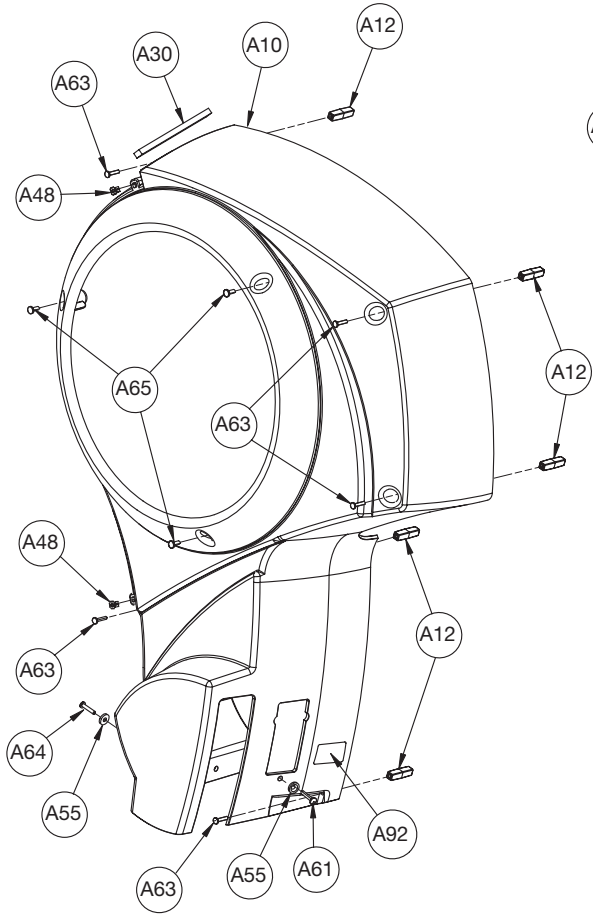
1-German 2-French 3-Spanish 4-English 6-Japanese 7-Swedish 8-Russian



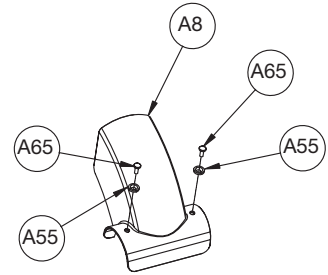
FRONT ACCESS COVER ASSEMBLY
KIT NO. 600AK018



RIGHT SHROUD ASSEMBLY
KIT NO. 600AK027

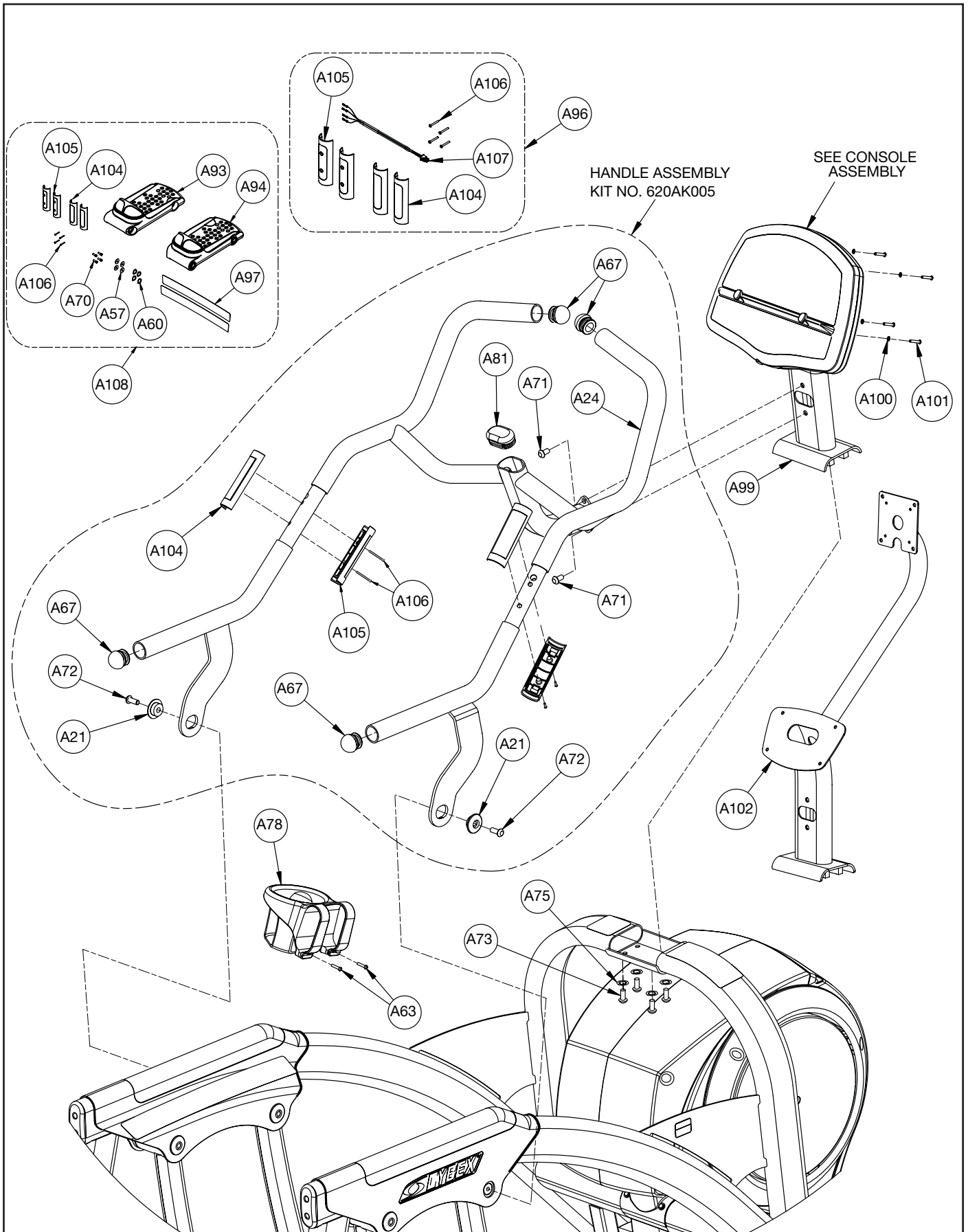


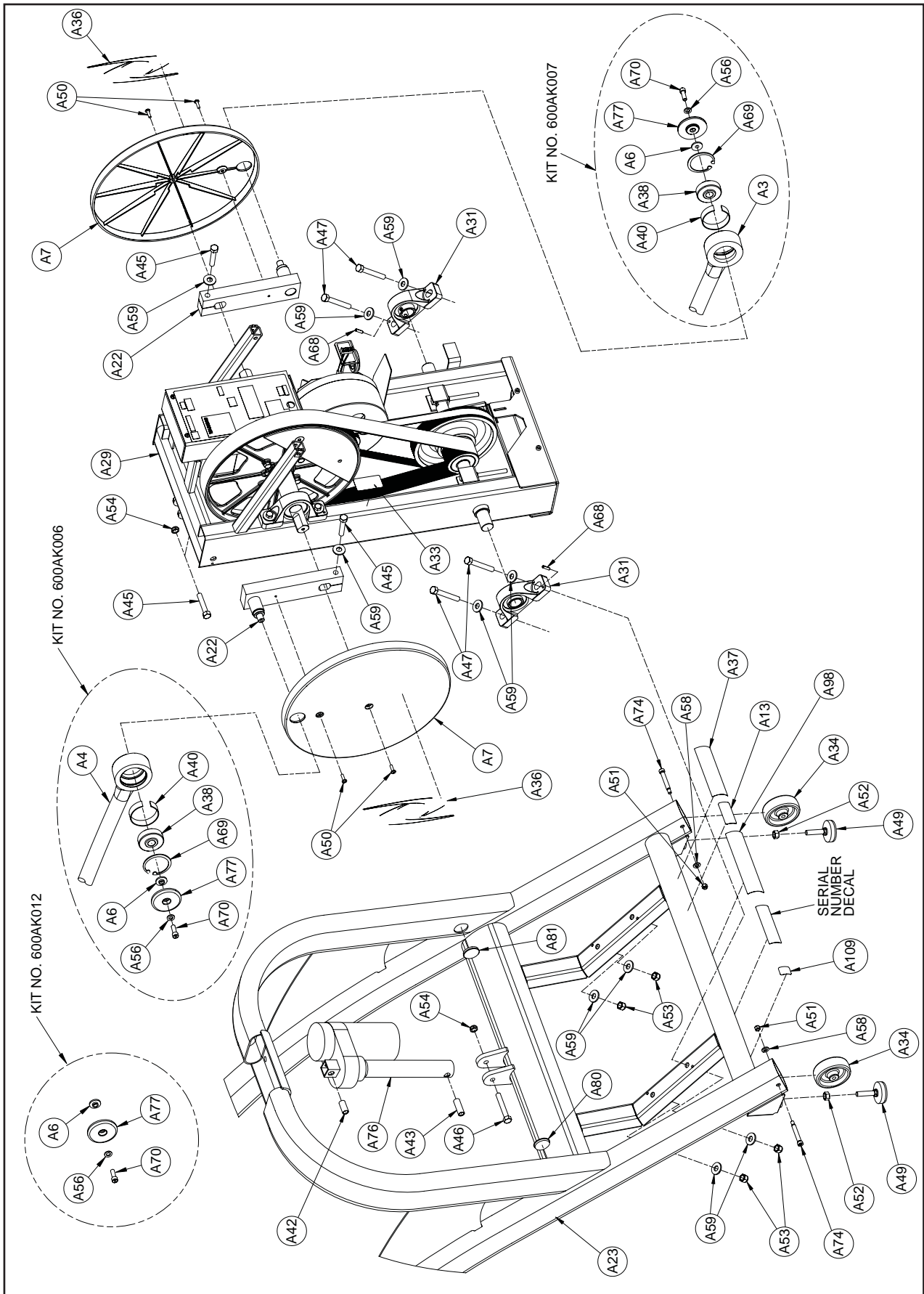
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KIT NO. 600AK025

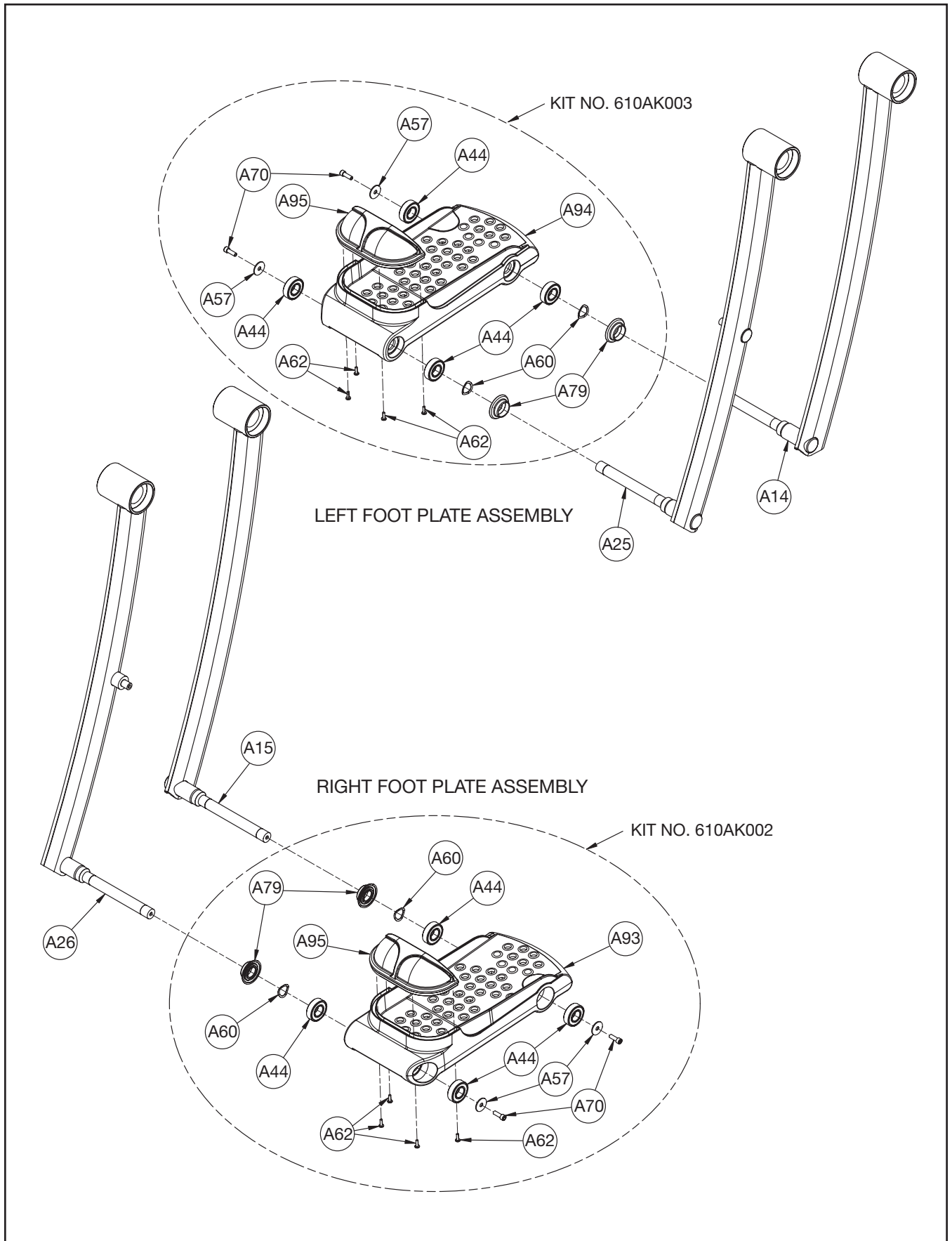


ELEVATION MOTOR
COVER ASSEMBLY

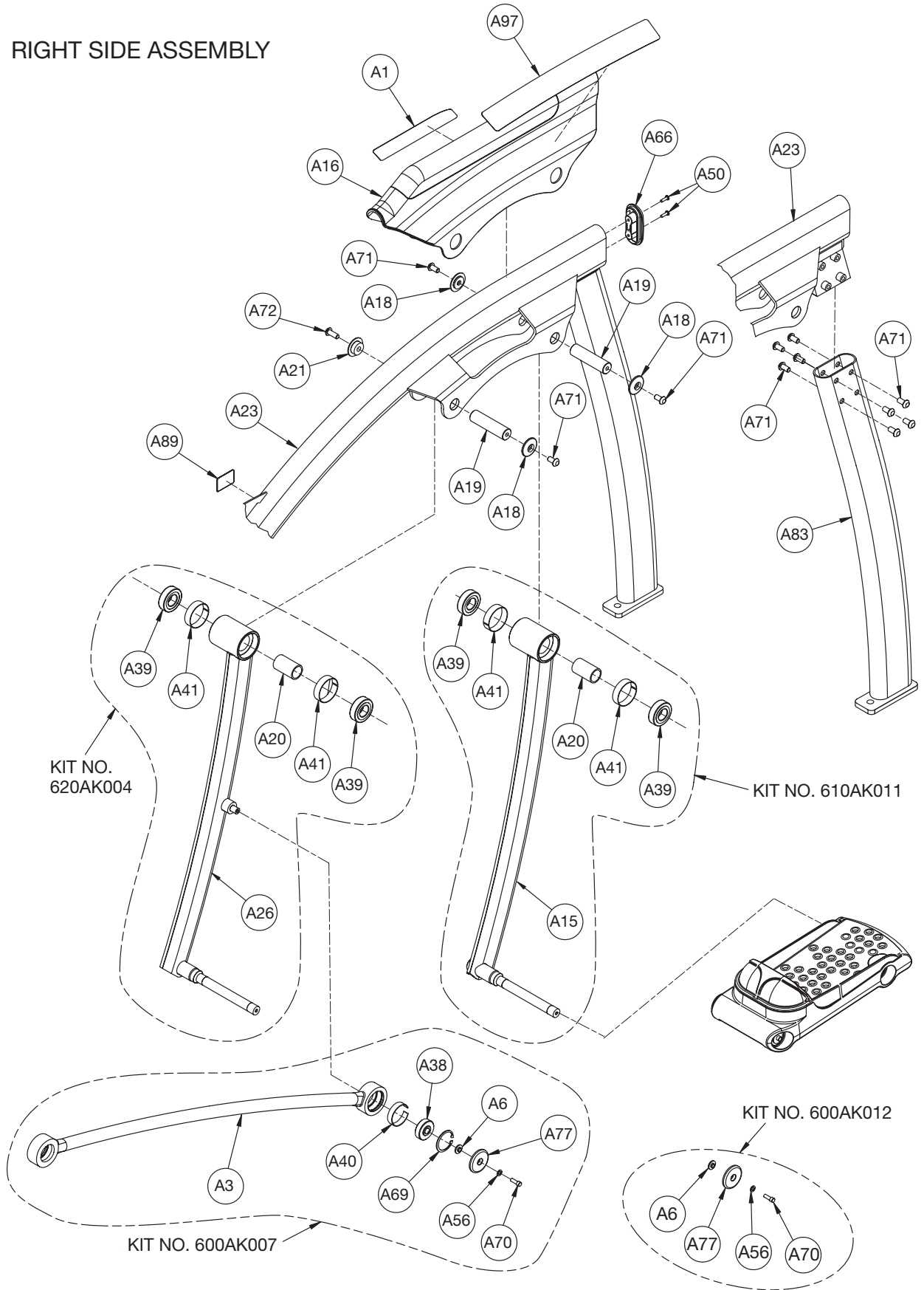
Cyber Arc Trainer 620A/629A Owner's Manual



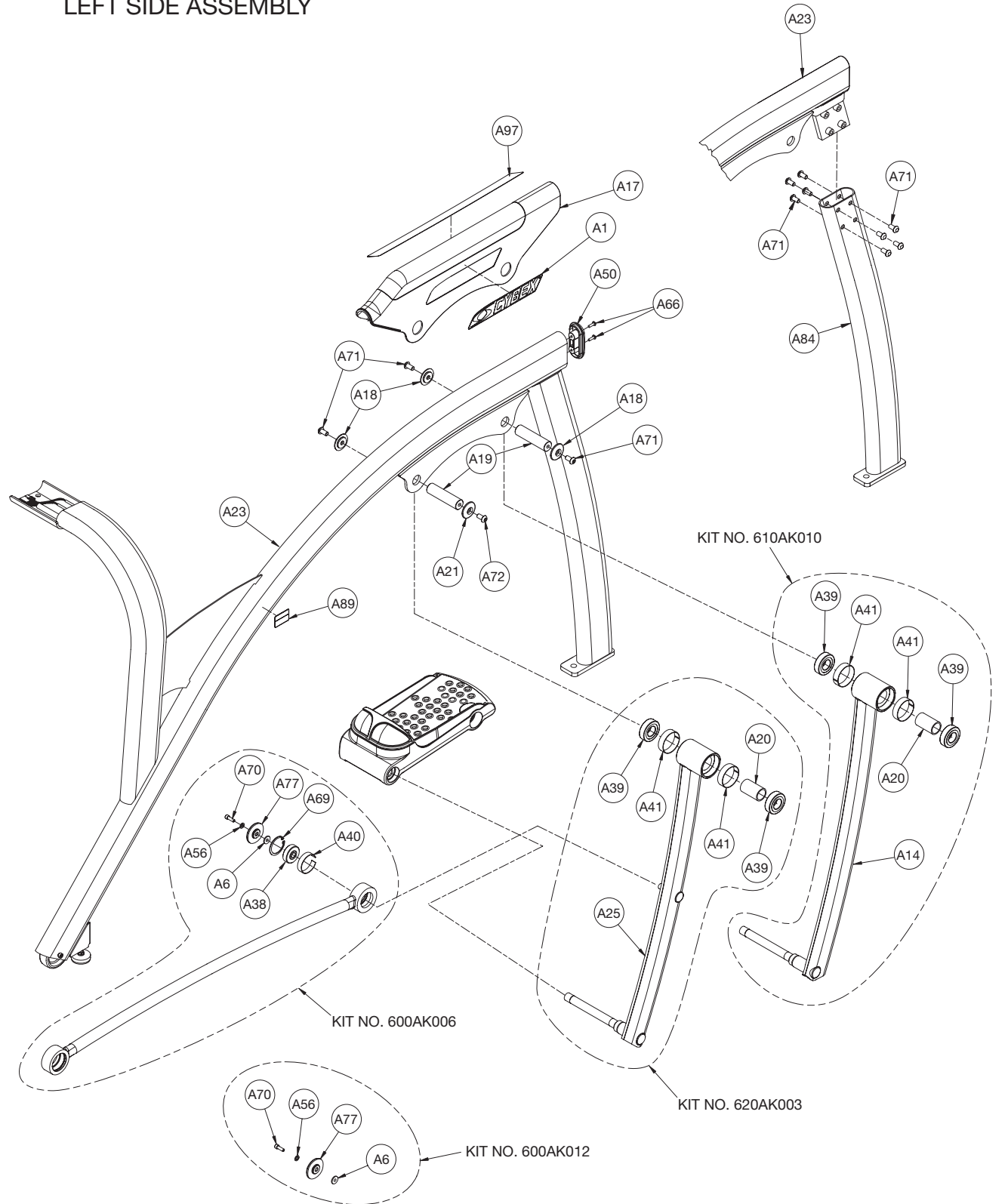




RIGHT SIDE ASSEMBLY



LEFT SIDE ASSEMBLY

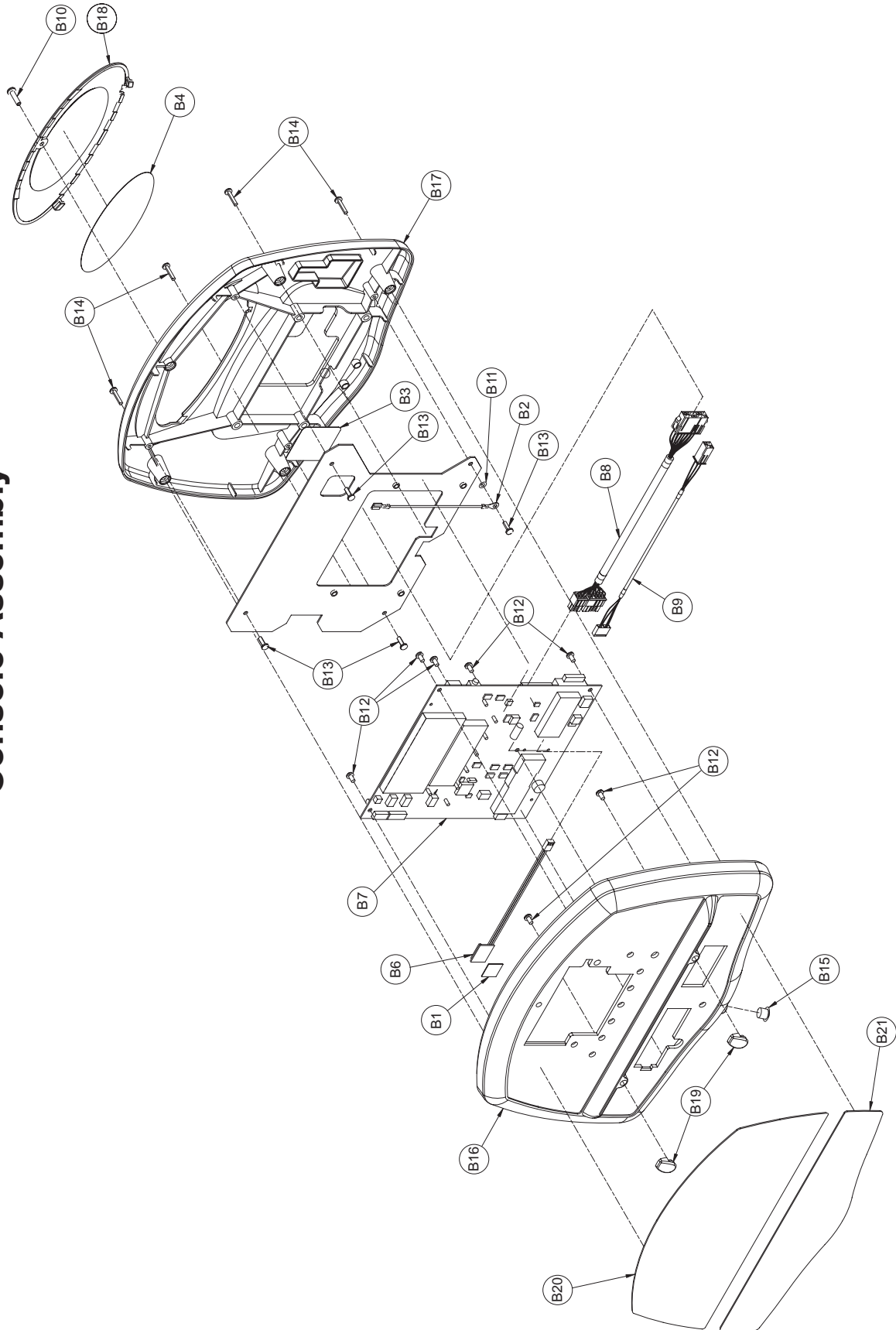


NOTE: *Parts lists and exploded views of the console and front end assembly are on the pages that follow.*

Console Assembly

ITEM	QTY	PART NO.	DESCRIPTION
B	1	630A-111-x*	CONSOLE
B1	1	01250	TAPE DOUBLE COATED .75
B2	1	610A-104	CABLE, CHR CHASSIS GND
B3	1	610A-354-x*	DECAL, CSAFE PORT, ENGLISH
B4	1	610A-355-x*	DECAL, ERROR CODES, ENGLISH
B5	1	610A-396	PLATE, CONSOLE MOUNTING
B6	1	630A-318	SENSOR, WIRELESS HR RECEIVER
B7	1	AD-19140	PCA, DISPLAY BOARD, ARC
B8	1	AW-18440	HARNES, SPA FRAME
B9	1	AW-19328	CABLE, 630A CHR CONSOLE
B10	1	HJ582515	SCREW, SEMS, 10-32 X .75 PHIL PAN, BLK ZINC
B11	1	HS087300	LOCKWASHER EXT TOOTH NO. 8 ZINC
B12	7	HT552509	SCREW, TAP 8-16 x .31 PLASTITE
B13	4	HT552512	PAN HD PHIL HD SELF TAPPING, 8-16 x .50 TYPE WB
B14	4	HT552515	PAN HD PHIL HD SELF TAPPING, 8-16 x .75, TYPE WB BLK
B15	1	PP080207	INSERT, PLASTIC .437 DIA 11 GA
B16	1	PP620003	CONSOLE, FRONT PLASTIC
B17	1	PP620004	CONSOLE, REAR PLASTIC
B18	1	PP620005	COVER, CONSOLE BATTERY DOOR
B19	2	PP620006	TAB, BOOK HOLDER
B20	1	SW-18276-x*	MEMBRANE,610A TOP, UNIV
B21	1	SW-19296-x*	MEMBRANE, 620/630A W/O AV

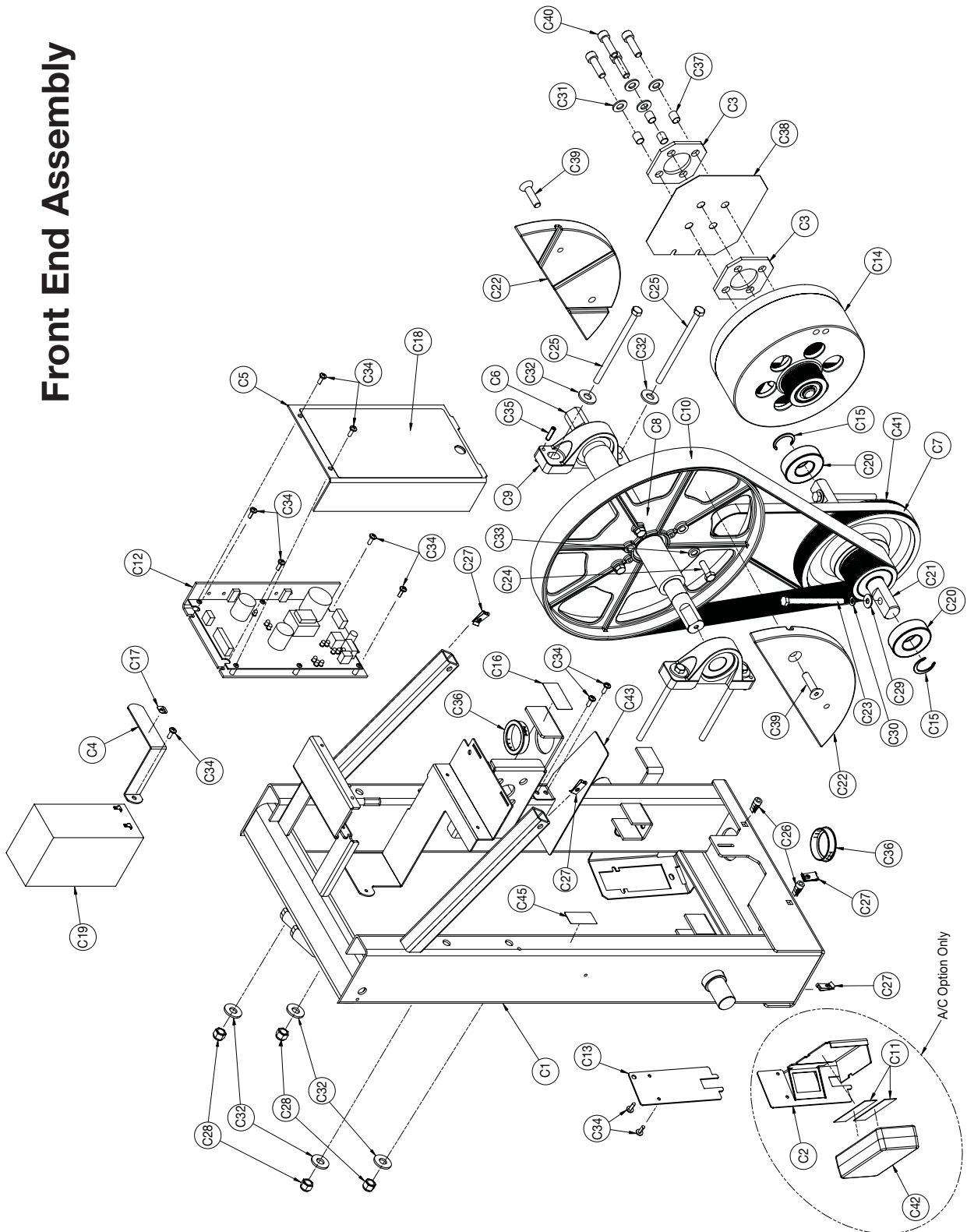
Console Assembly



Front End Assembly

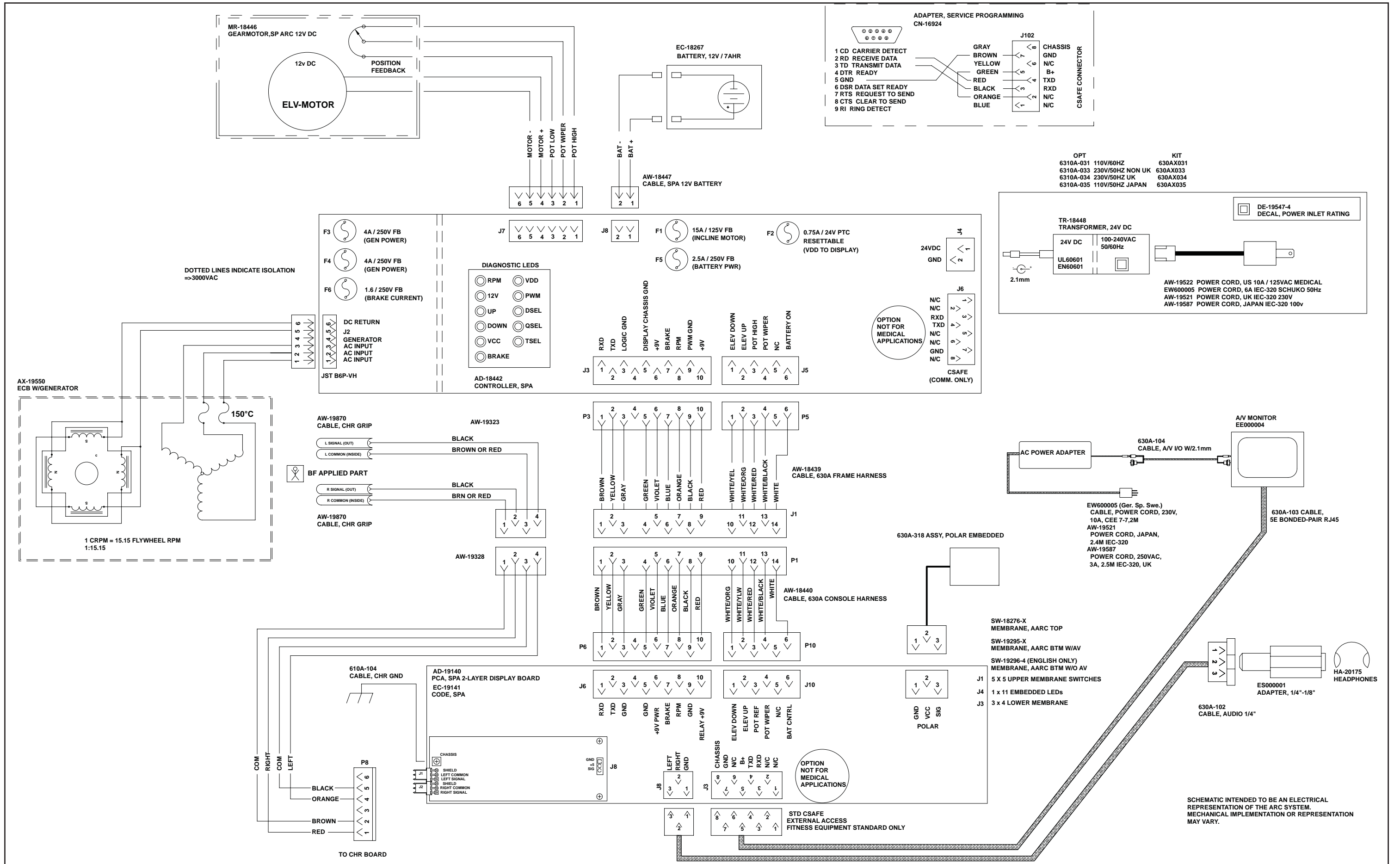
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C1	1	630A-200	FRAME, FRONT	C27	4	HF579000	NUT, U TYPE 10-24 PANEL
C2	1	630A-201	BRACKET, TRANSFORMER (A/C OPTION ONLY)	C28	4	HN704901	LOCKNUT, .375-16 NYLON
C3	2	630A-305	SPACER, INSULATING	C29	2	HS307600	WASHER, SAE .250
C4	1	630A-314	CLAMP, BATTERY	C30	2	HS308300	LOCKWASHER SPLIT .250
C5	1	630A-316	CONTROLLER COVER	C31	4	HS347600	WASHER, SAE .375
C6	1	600A-313	SHAFT	C32	8	HS347700	WASHER, USS .375
C7	1	630A-328	BELT, SECONDARY DRIVE, 7 RIB	C33	4	HS760100	SPRING RETAINING WASHER
C8	1	600A-337	PULLY, POLY-V DIE CAST, 16 GROOVES	C34	11	HT572512	SCREW, TAP NO. 10 - 24 X .50 PAN HEAD
C9	2	600A-340	BEARING, 1.00 INCH PILLOW BLOCK	C35	2	HX-17023	PIN, SPRING .1875 X .75 LG TYPE 420
C10	1	600A-343	BELT, PRIMARY DRIVE 16 RIB	C36	2	HX-17050	BUSHING, 1.275 ID X 1.87 OD, NYLON
C11	2	01250	DOUBLE SIDED FOAM TAPE, 0.75 (A/C OPTION ONLY)	C37	4	630A-327	SLEEVE, GENERATOR ISOLATION
C12	1	AD-18442	PCA, CONTROL BOARD	C38	1	HX-19504	SPACER, GENERATOR ISOLATION
C13	1	AF-19518	PLATE, POWER INLET, BLANK (FOR CORDLESS UNITS ONLY)	C39	1	JC700922	SCREW, FHSCS .375-16 X 1.50
C14	1	AX-19550	ASSEMBLY, BRAKE GENERATOR	C40	4	JC702820	SCREW, SOC HD CAP .375 X 16 X 1-1/4
C15	2	BR030221	RING RETAINING, EXTERIOR CRESENT	C41	1	PW-16521	PULLEY, DRIVE
C16	1	DE-17155-x*	WARNING DECAL	C42	1	TR-18448	TRANSFORMER, 24V DC IEC-320 INPUT (A/C OPTION ONLY)
C17	1	DE-19586	DECAL, WARNING ICON, BATTERY	C43	1	630A-315	PLATE
C18	1	DE-19593-x*	DECAL, LOWER CONTROL COVER	C44	1	AW-18447	BATTERY CABLE (NOT SHOWN)
C19	1	EC-18267	BATTERY, 12 VDC	C45	1	CM000243	LABEL, CALIBRATION
C20	2	FB030243	BEARING, 25 MM ID X 52 MM OD 6205				
C21	1	FM-16859	SHAFT, LOWER				
C22	2	FM-19507	COUNTERWEIGHT, PULLEY				
C23	2	HC661240	SCREW, HEX HEAD CAP .312-18 X 3.75				
C24	4	HC661217	HX HD CAP SCREW .312-18 X 1.00				
C25	4	HC701254	HX HD CAP SCREW .375-16 X 5.50				
C26	2	HF540201	NUT, GROMMET, SPACER				

Front End Assembly



A/C Option Only

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