



Cybex Treadmill 425T/445T
Service Manual
Cardiovascular Systems
Part Number LT-22772-4 A



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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 your order to 508-533-5183
- contact Cybex Customer Service at 888-462-9239
- or contact Cybex Customer Service at 508-533-4300

To contact Cybex with comments about this manual you may send email to 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 A 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.

1 – Safety

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

Important Voltage Information

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

The power requirements for the Cybex 425T treadmill include a grounded, dedicated circuit, rated for one of the following: 115 VAC $\pm 5\%$, 60 Hz and 15 amps; 208/220 VAC, 60 Hz and 10 amps or 230 VAC $\pm 5\%$, 50 Hz and 10 amps.

The power requirements for the Cybex 445T treadmill include a grounded, dedicated circuit, rated for one of the following: 115 VAC $\pm 5\%$, 60 Hz and 20 amps; 220 VAC, 60 Hz and 12 amps or 230 VAC $\pm 5\%$, 50 Hz and 12 amps.

See the serial number decal for the exact voltage requirements of your treadmill.

WARNING: Do not attempt to use this unit with a voltage adapter. Do not attempt to use this unit with an extension cord.

WARNING: Do not plug more than one unit into a single circuit.

Grounding Instructions

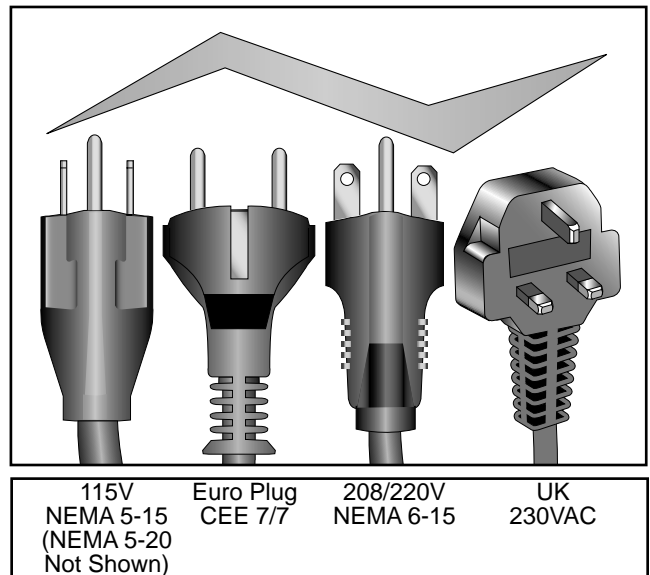
This treadmill must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

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 treadmill 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.

The 425T treadmill is for use on a nominal 115 VAC $\pm 5\%$, 60 Hz and 15 amps, 208/220 VAC; 60 Hz, 10 amps or 230 VAC $\pm 5\%$, 50 Hz and 10 amps and a grounded, dedicated circuit.


The 445T treadmill is for use on a nominal 115 VAC $\pm 5\%$, 60 Hz and 20 amps, 220 VAC; 60 Hz, 12 amps or 230 VAC $\pm 5\%$, 50 Hz and 12 amps and a grounded, dedicated circuit.


Make sure that the treadmill 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 treadmill 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

- **DO NOT** wear loose or dangling clothing while using.

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

- Use the treadmill handrails for support and to maintain balance.
- Stop exercising if you feel faint, dizzy, or experience pain at any time and consult your physician.
- Obtain a medical exam before beginning any exercise program.
- Read and understand emergency stop procedures.
- Replace any warning labels if damaged, worn or illegible.
- Report any malfunctions, damage or repairs to the facility.
- Place your feet on the two top steps when starting or stopping the treadmill.
- Stop and place the treadmill at 0 degrees incline (level) after each use.
- Keep children away from the treadmill. Teenagers and disabled persons must be supervised.
- Obtain instruction before using.
- Keep all body parts, towels, and the like free and clear of moving parts.
- Read and understand the Owner's Manual and all warnings posted on the unit before using. 
- **DO NOT** use the unit if you exceed 350 lbs. (158 kg). This is the rated maximum user weight.
- Disconnect power before servicing.

Facility Safety Precautions

- Instruct all users on how to clip the e-stop clip onto their clothing and carefully test it prior to using the treadmill.
- Instruct all users to use caution when mounting and dismounting the treadmill.
- Use a dedicated line when operating the treadmill. **NOTE: A dedicated line requires one circuit breaker per unit.**
- Connect the treadmill to a properly grounded outlet only.
- **DO NOT** operate electrically powered treadmills in damp or wet locations.
- Keep the running belt clean and dry at all times.

- **DO NOT** leave the treadmill unattended when plugged in and running. NOTE: Before leaving the treadmill unattended, always wait until the treadmill comes to a complete stop and is level. Then remove the plug from the outlet. Remove the e-stop key from the treadmill.
- Immobilize the treadmill (when not in use) by removing the e-stop key.
- Inspect the treadmill for worn or loose components before each use. Do not use until worn or damaged parts are replaced.
- Maintain and replace worn parts regularly. Refer to “Preventive Maintenance” section of Owner’s Manual.
- **DO NOT** operate the treadmill if: (1) the cord is damaged; (2) the treadmill is not working properly or (3) if the treadmill has been dropped or damaged. Seek service from a qualified technician.
- **DO NOT** place the cord near heated surfaces or sharp edges.
- **DO NOT** use the treadmill outdoors.
- **DO NOT** operate the treadmill around or where aerosol (spray) or where oxygen products are being used.
- Read and understand the Owner’s Manual completely before using the treadmill.
- Ensure all users wear proper footwear on or around all Cybex equipment.
- Set up and operate the treadmill on a solid, level surface. Do not operate in recessed areas or on plush carpet.
- Provide the following clearances: 19.7 inches (0.5 m) at each side, 79 inches (2.0 m) at the back and enough room for safe access and passage at the front of the treadmill. Be sure your treadmill is clear of walls, equipment and other hard surfaces.
- **DO NOT** attempt repairs, electrical or mechanical. Seek qualified repair personnel when servicing. See **Chapter 4 – Customer Service** for contact information.
- Use Cybex factory parts when replacing parts on the treadmill.
- **DO NOT** modify the treadmill in any way.
- **DO NOT** use attachments unless recommended for the treadmill by Cybex.
- Ensure all User and Facility safety precautions are observed.

Carefully read and understand the following before using the treadmill:

- Warning Decals
- Caution Decals

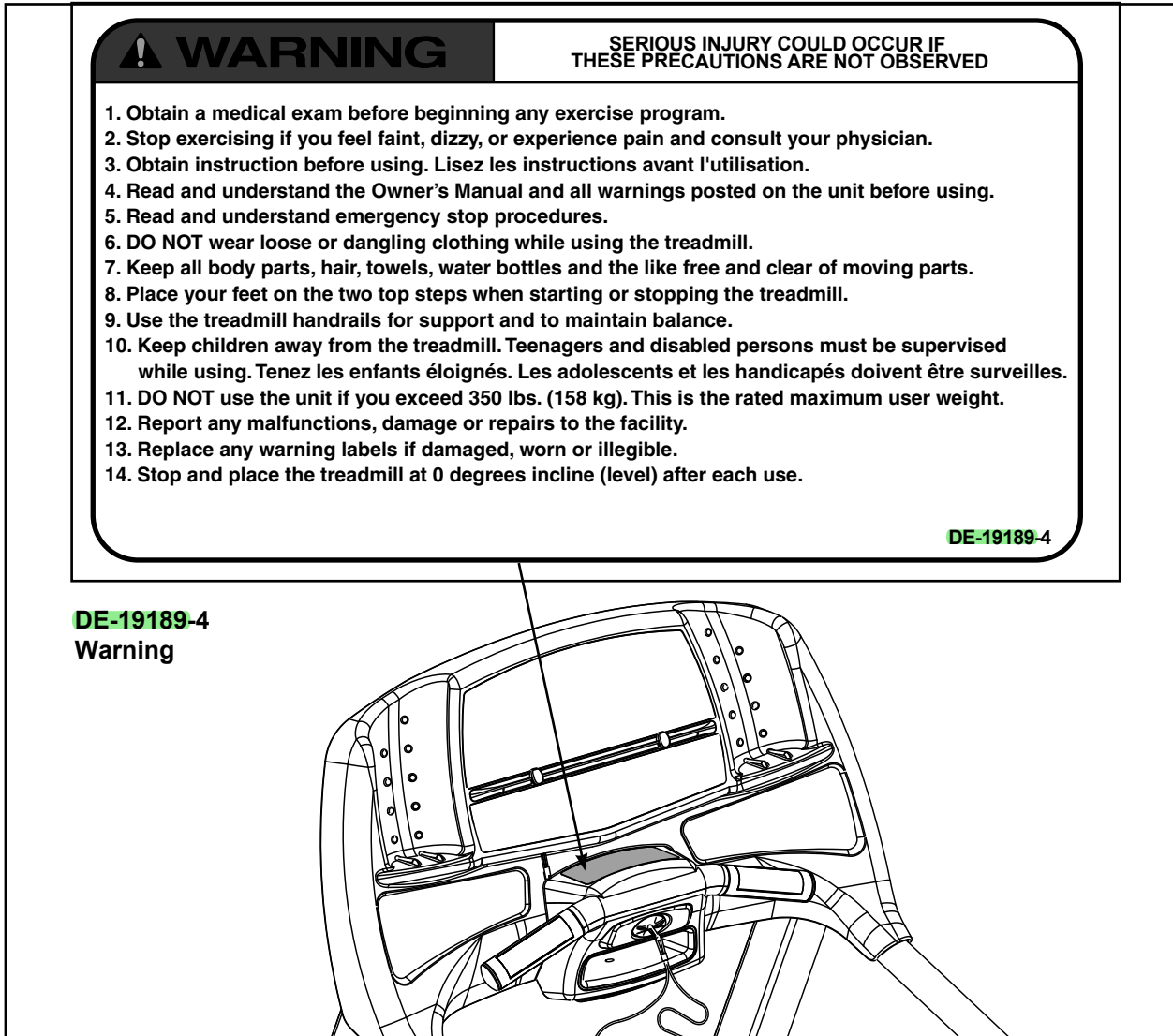
To replace any worn or damaged decals do one of the following contact Cybex Customer Service. See **Chapter 4 – Customer Service** for contact information.

Warning Decals

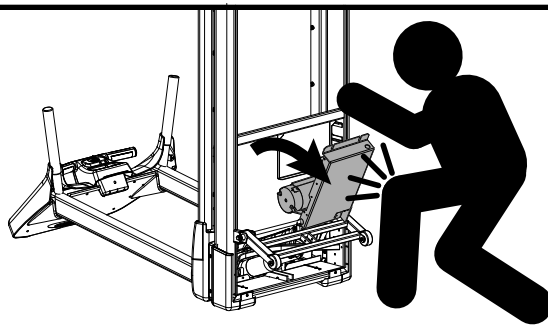
Warning decals indicate a potentially hazardous situation, which, if not avoided, could result in death or serious injury. The warning decals used on the Cybex 425T and 445T are shown below.

Caution Decals

Caution decals indicate a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury. There are no caution decals used on this unit. However, there are caution statements listed in this manual.

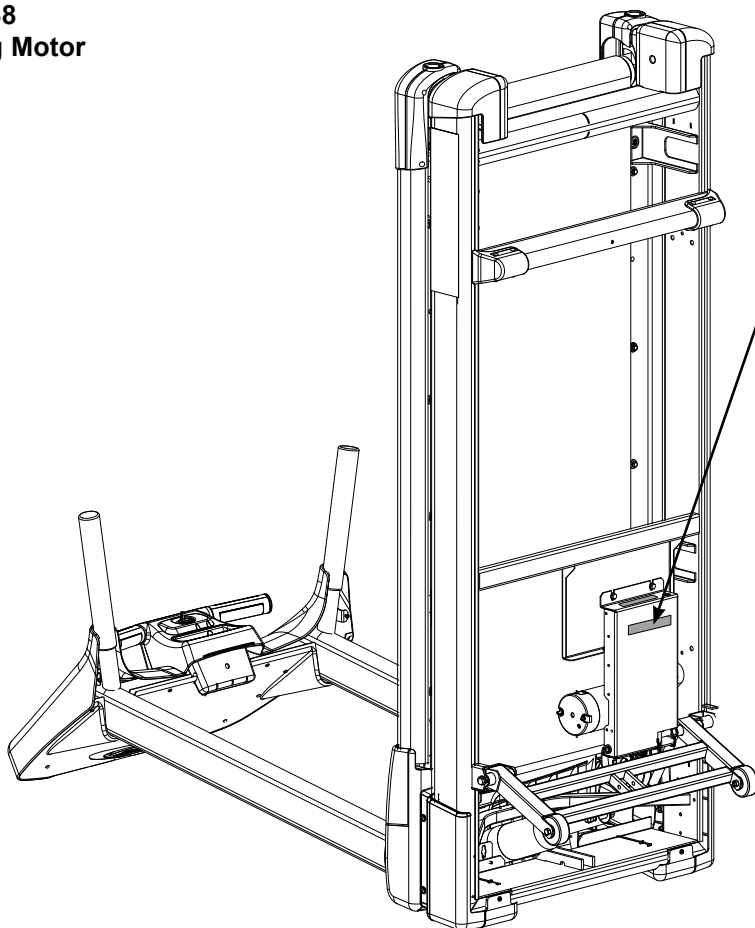


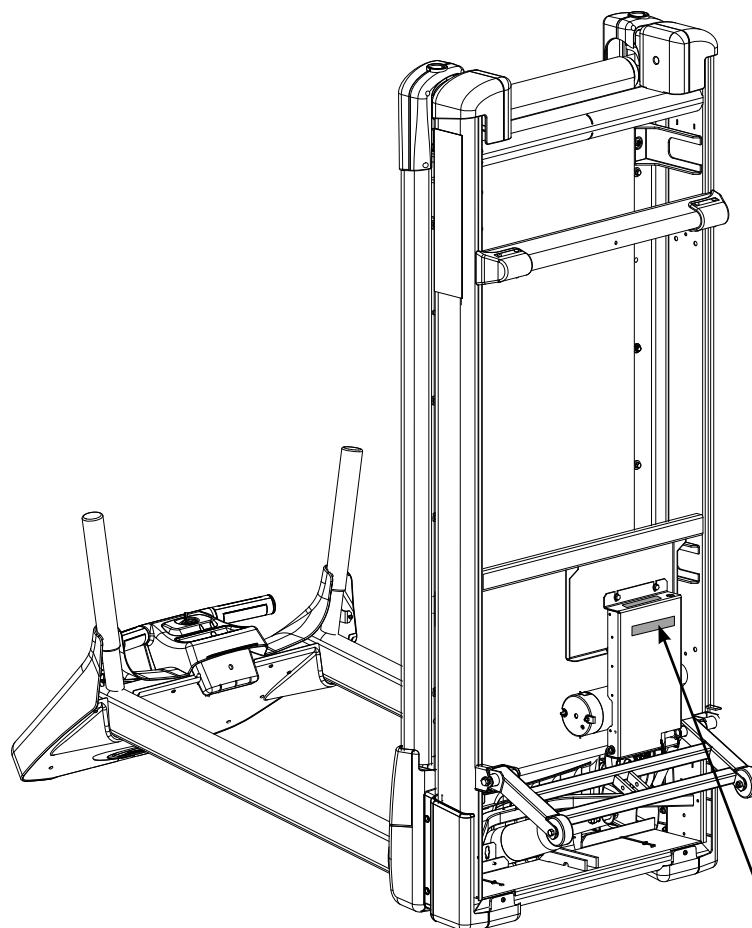
⚠ WARNING
WARNUNG
AVERTISSEMENT
ADVERTENCIA
ПРЕДУПРЕЖДЕНИЕ
VARNING
ADVARSEL 警告



DE-19238

DE-19238
Warning Motor
Cover



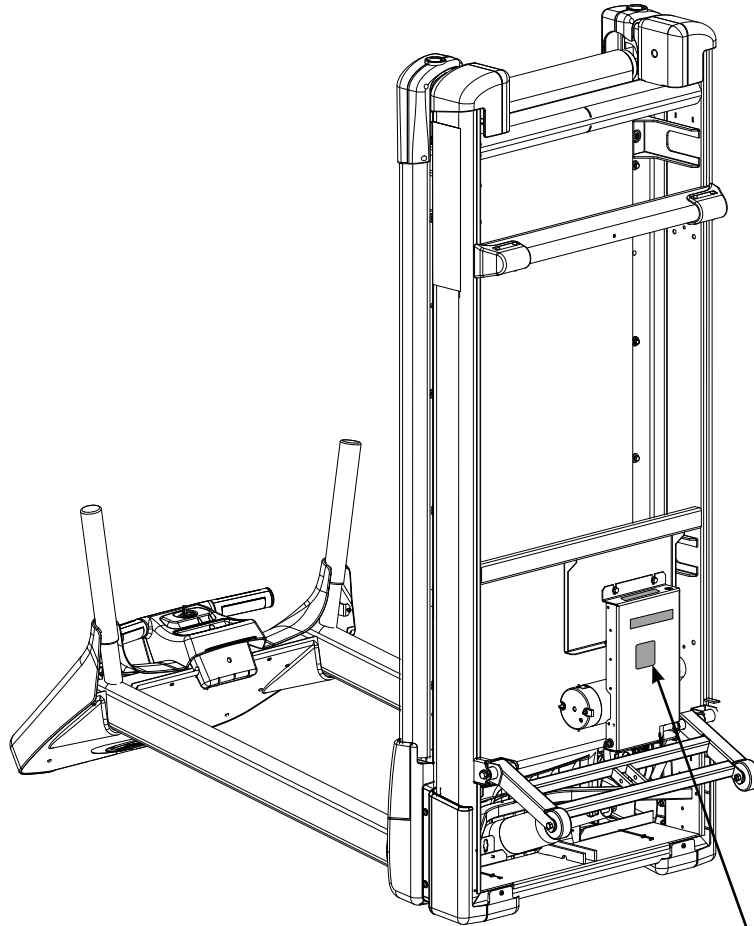


<div> WARNING WARNUNG 警告 ПРЕДУПРЕЖДЕНИЕ</div> <div>AVERTISSEMENT ADVERTENCIA ADVERTENCIA VARNING</div>						
DISCONNECT POWER BEFORE SERVICING.	DÉBRANCHEZ L'ALIMENTATION AVANT DE FAIRE L'ENTRETIEN.	VOR SERVICEAR- BEITEN NETZSTECKER ZIEHEN.	CORTE LA ENERGIA ELECTRICA ANTES DE REPARAR.	修理点検の前に 電源を 切って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

DE-20427 A

DE-20427
Warning Motor
Cover

445T Only



WARNING

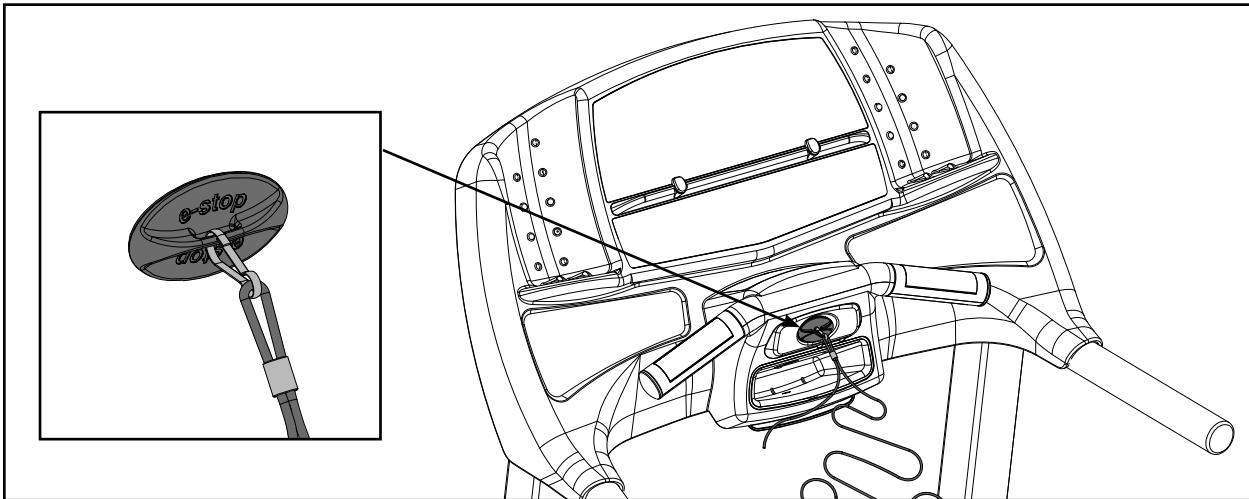
All maintenance activities shall be performed by qualified personnel. Failure to do so could result in personal injury.

DE-19730
IR Comp Adjust

Emergency Stop Key (e-stop)

The e-stop key functions as the emergency stop. In an emergency situation, remove the e-stop key and the treadmill will come to a stop. Before using the treadmill, clip the e-stop key as described below.

1. Clip the e-stop key to your clothing. **NOTE: Be sure the string is free of knots and has enough slack for you to run comfortably with the e-stop key in place.**
2. Without falling off the treadmill, carefully step backward until the e-stop falls off the treadmill. **NOTE: If the e-stop clip falls off your clothing then the test has failed. Reclip the e-stop clip to your clothing and repeat this step.**
3. Replace e-stop after successfully testing the e-stop key. See the illustration shown below.
4. The treadmill is now ready to be used.



5. After use, remove the e-stop key from the treadmill.

NOTE: The e-stop key shall be removed to help prevent unauthorized use. Refer to the Stopping the Treadmill section in the Operation chapter for more information about the e-stop key.

2 - Preventive Maintenance



Warnings/Cautions

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

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

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

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

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 treadmill. Keeping a log sheet of all maintenance actions will assist 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 treadmill removed from service until the repair is made.

NOTE: Cybex is not responsible for performing regular inspection and maintenance actions for treadmill. Instruct all personnel in equipment inspection and maintenance actions and also in accident reporting/recording. See Chapter 4 - Customer Service for contact information.

Cleaning Treadmill

When cleaning treadmill spray a mild cleaning agent, such as a water and dishsoap solution, on a clean cloth first and then wipe the treadmill with the damp cloth.

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



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

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 between the edge of the display panel and the console, 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 treadmill. Motors are especially susceptible to dust and dirt, and restricted airflow can prevent adequate cooling that could shorten motor life. Cleaning this area should be done as often as indicated in the *Service Schedule*.



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

To clean the motor components, raise the elevation to 15% elevation. Unplug the treadmill and carefully lift the rear of the treadmill. Lift the treadmill until it rests on the top of the console. Use a vacuum attachment or hand vacuum to clean the exposed elevation assembly, drive motor, lower electronics and the surrounding areas. Wipe clean the underside of the treadmill to prevent dirt and dust build-up.

Also use a dry cloth for the areas unable to reach with the vacuum cleaner. If the machine has not been used for some time or is excessively dirty, use a dry cloth to wipe all exposed areas.

Carefully lower the rear of the treadmill and roll it back from its present position to vacuum the floor area underneath the unit. When finished, return the treadmill 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 rubbing alcohol. The grips are the only part of the treadmill where a cleaning solution containing rubbing alcohol should be used.

Running Belt Maintenance

Belt and Deck — Wipe the belt surface and the deck area with a clean dry towel to minimize the effect of friction between the deck and the running belt. This should be done often to prevent premature wear of the deck, running belt, and the drive motor system. See the *Service Schedule* at the end of this chapter.

The running belt may become loose and slip on the drive roller with each foot plant. If it does, follow the *Tensioning and Centering the Belt* procedure below. See the *Service Schedule* in this chapter for a minimum schedule for checking the belt tension.

Tension and Center the Belt — If the belt is slipping under each step perform this procedure:

Tools Required

- 3/4" Socket wrench

1. Tension the belt.

- A.** Use a 3/4" socket wrench to turn each bolt 1/2 turn clockwise. See Figure 1. **NOTE:** Be sure to adjust each bolt equally on each side.

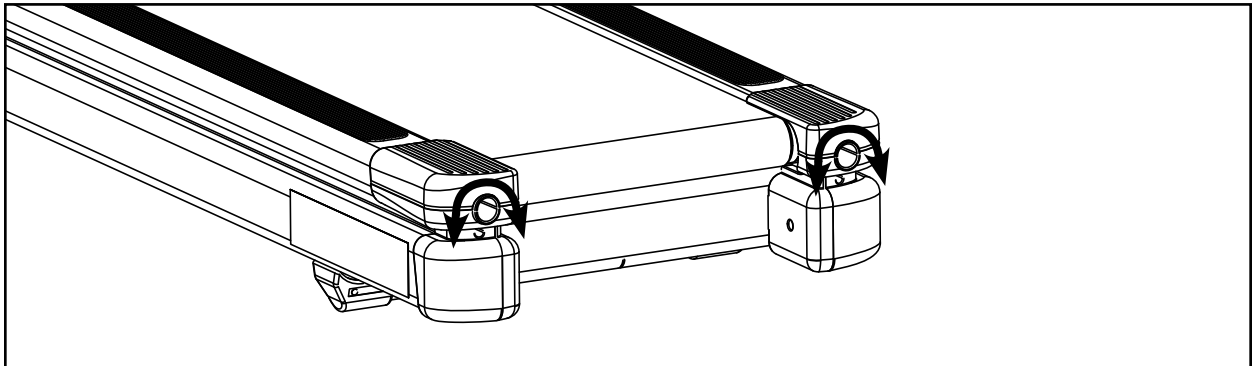


Figure 1

- B.** Press the **QUICK START** key.
- C.** Press the **Speed +** to bring the speed up to 3.5-4 mph (5.6-6.4 kph). Allow the treadmill to run for a minute.
- D.** Observe the belt to be sure it stays centered. If it is not centered follow step 2.
- E.** Walk on the belt to see if it still slips. If it does restart this procedure at step 1 A. If after three times completing this procedure it still slips; call Cybex Customer Service. Follow the next step to be sure the belt is centered.

NOTE: Be careful not to over tighten the belt. Over tightening the belt can cause the belt to stretch and require replacement.

2. Center the belt.

NOTE: While centering the belt choose one bolt to adjust. Do not adjust both bolts.

- A. With the treadmill running at 5 mph (8 kph) observe the running belt. If the belt tracks off center to the right or left the deck will become exposed. Use a 3/4" socket wrench to tighten the rear roller bolt on the side of the treadmill toward which the belt is moving. For example: If the belt moves to the right and the deck becomes exposed on the left, tighten the bolt on the right side of the frame, tighten about 1/2 of a turn (clockwise) and wait 30 seconds. If the belt does not move back to the center of the treadmill, make another adjustment to the **same bolt**. Once the running belt has been adjusted closer to the center of the treadmill use about 1/4 of a turn until the belt has been stabilized.
- B. After the belt has been centered, check the belt tension again. Make sure the running belt tension is tight enough so that the belt does not slip or hesitate when stepped on. Walk on the treadmill at 3.5-4 mph (5.6-6.4 kph) and every 4th to 5th step throw weight into step to feel if the belt is slipping. If the belt does slip, use a wrench to equally tighten **both** rear roller adjustment bolts 1/2 of a turn (clockwise). Adjust the belt until no further slipping is felt.

Checking the Belt and Deck Surfaces — The running belt and deck should be checked periodically for any excessive wear. In an effort to make sure that the running belt operates properly, visually inspect the belt often to make sure that there are no tears or fraying in the belt material. The running belt, deck, deck bushings and motor brushes should be replaced every 9,000 miles (14,500 km) for the 425T and every 12,000 miles (19,300 km) for the 445T. A service prompt will appear at this interval and the parts will need to be replaced.

Inspect the edges of the belt as described below.

Tools Required

- None

1. Disconnect the external power source.

- A. Turn the main power switch to the off (O) position.
- B. Unplug the treadmill from the power outlet.

2. Check the belt and deck condition.

- A. Look at the edges of the belt while rolling by hand. If the belt has any rips or looks excessively worn the belt needs to be replaced.
- B. Run hand under the belt on the top of the deck surface. If feeling excessive ridges or cracks, or if any wood is exposed under the black surface, the deck should be replaced. In time, a worn belt and deck can cause high current draw and ultimately, motor failure.

NOTE: If the running belt and deck need replacement refer to a qualified service technician.

Other Preventive Maintenance

Other preventive maintenance activities must be completed by a qualified service technician at the recommended intervals listed in the *Service Schedule* at the end of this chapter. These activities include:

- Measure the motor brushes and replace worn motor brushes
- Replace the running deck and bushings
- Replace the running belt

Elevation Motor Lubrication — In time the elevation motor pivot points may develop a squeak. Lubricate the upper and lower bolts and the spacers with a small amount of lithium grease. **NOTE:** *Buy lithium grease at an auto parts store.*

Static Electricity — Climatic dry air may cause static electricity. During workout, user may experience a shock due to build-up of static electricity on the body and the discharge path of the unit. If static electricity is experienced, increase humidity to a comfortable level through the use of a humidifier.

Service Schedule

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

NOTE: *This is the minimum recommended service.*

1. Determine mileage.

- A. While in *Dormant Mode* enter *Test Mode* by pressing and holding the **Heart Rate** and **Level** keys simultaneously for five seconds.
- B. Press the **Dist** key. DIST appears on the display. Record Mileage. **NOTE:** *Once the unit exceeds 999 miles or kilometers the odometer will use both screens. Example: 12,805 miles or km would be displayed as 12 805.*

NOTE: *To exit Test Mode, press the Pause/Stop key.*

425T Service Schedule

First 500 miles (800 km).

- Check running belt tension and tracking.

Every 5,000 miles (8,000 km).

- Check running belt tension and tracking.
- Move treadmill and vacuum underneath.
- Raise elevation to 15%, Carefully tip treadmill up on the console to clean underneath with a dry cloth and vacuum. Return to normal position when done.

Every 9,000 miles (14,500 km).

- Replace running belt and deck.
- Replace deck bumpers.
- Replace drive motor brushes.
- Check elevation assembly and replace worn parts.
- Lubricate elevation pivot points.

NOTE: *Every 9,000 miles (14,500 km) the unit will show "SVC" on the display. The unit will then emit a short beep every 2 minutes. This will continue until the service is performed and the service odometer is reset.*

445T Service Schedule

First 500 miles (800 km).

- Check running belt tension and tracking.

Every 5,000 miles (8,000 km).

- Check running belt tension and tracking.
- Move treadmill and vacuum underneath.
- Raise elevation to 15%, Carefully tip treadmill up on the console to clean underneath with a dry cloth and vacuum. Return to normal position when done.

Every 12,000 miles (19,300 km).

- Replace running belt and flip deck.
- Replace deck bumpers.
- Replace drive motor brushes.
- Check elevation assembly and replace worn parts.
- Lubricate elevation pivot points.

NOTE: Every 12,000 miles (19,300 km) the unit will show "SVC" on the display. The unit will then emit a short beep every 2 minutes. This will continue until the service is performed and the service odometer is reset.

Every 24,000 miles (38,600 km).

- Replace running belt and deck.

Resetting the Service Odometer.

- A.** While in *Dormant Mode* enter *Test Mode* by pressing and holding the **Heart Rate** and **Level** keys simultaneously for five seconds.
- B.** Press the **Cool Down** key to display “SVC” and miles or kilometers on service odometer.
- C.** Press the **Λ** or **V** key to display “RST”.
- D.** Press the **Enter** key to reset the service odometer to zero.

NOTE: *Service may be performed before the 425T 9,000 miles (14,500 km) or the 445T 12,000 miles (19,300 km) service prompt appears. Perform the service on the unit and follow the above procedure to reset the service odometer to zero.*

3 - Service

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



Warnings

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

Drive belt is under tension. Do not pinch fingers while releasing tension.

Disconnect the power cord before beginning this procedure.

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

Drive Motor is heavy, use care when lifting.

Keep wet items away from inside parts of the treadmill. Electrical shock could occur even if the treadmill is unplugged. Motor brush removal and replacement should be performed by a qualified service technician.

Motor plate is heavy and will drop down when motor plate bolts are removed!

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



Cautions

Use only Cybex replacement parts when servicing. Failure to do so could result in personal injury.

During this procedure STAY OFF THE RUNNING BELT! Stand with feet on the two steps. Always use proper lifting methods when moving heavy items.

For any service related concerns, contact Cybex Customer Service. See contact information in **Chapter 4 – Customer Service.**

NOTE: Read and understand each procedure thoroughly before servicing. Unless otherwise noted “right” and “left” denote user orientation for all procedures.



CAUTION

**Use only Cybex replacement parts when servicing.
Failure to do so could result in personal injury.**

Cybex will void warranty if non-Cybex replacement parts are used.

Test Mode

To enter *Test Mode* press and hold down the **Heart Rate** and **Level** keys simultaneously for five seconds while in *Dormant Mode*. When the **Heart Rate** and **Level** keys are released the software revision “rx.x” shown on the display. To exit *Test Mode* press the **Pause/Stop** key once.

Figures 1a and 1b show the 425T and 445T upper and lower display overlays.

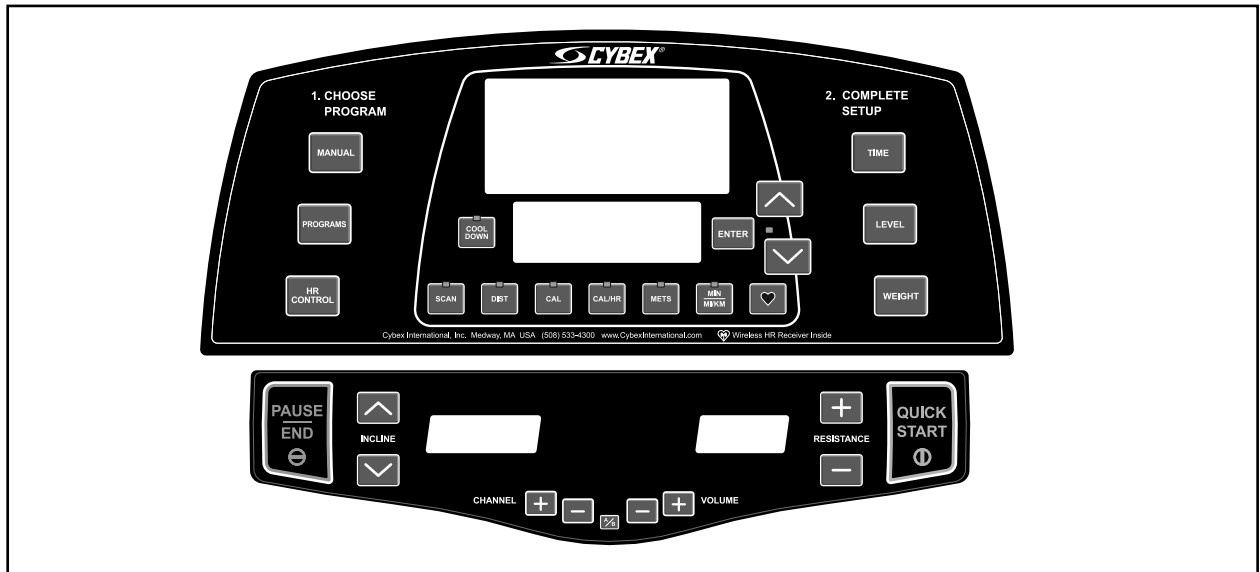


Figure 1a - 425T Upper and Lower Membrane. (Shown with optional channel and volume keys)

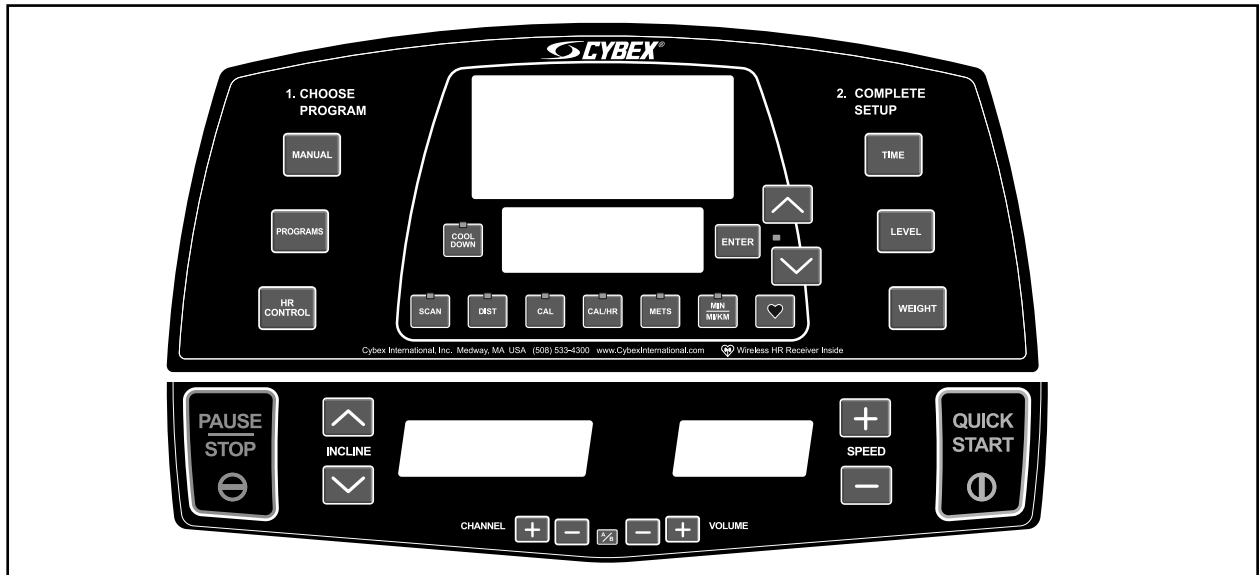


Figure 1b - 445T Upper and Lower Membrane. (Shown with optional channel and volume keys)

Key Functions

While in *Test Mode* press the following keys for desired information:

Quick Start	Start the belt at 1.0 mph (1.0 kph)
Manual	Lights all LED segments for a short period of time
Programs	Lights all vertical LED segments for a short period of time
HR Control	Lights all horizontal LED segments for a short period of time
Cool Down	Displays service odometer. Maintenance prompt is activated every 9,000 miles (14,484 km) for the 425T and every 12,000 miles (19,300 km) for the 445T . Display shows "SVC" and beeps every 2 minutes. See Error Codes
Dist	Press once for odometer information (DST) to appear in the speed window. Press again for hour information (HRS) to appear in the speed window. Press three times for number of starts information (USES) to appear in the speed window
Cal	Displays motor pulse width (PWM) value
Min/mi/km	Displays and cycles through error log. Up to 10 errors can be stored
Scan	Clears error log when pressed twice while in error log mode
Incline ^	Run elevation motor up
Incline v	Run elevation motor down
Speed +	Increase drive motor speed
Speed -	Decrease drive motor speed
Pause/Stop	Press once to exit <i>Test Mode</i>
Time	Displays setup constants, each of which may be modified by pressing the Up and Down arrows. Each depression Time cycles to the next parameter. The Enter must be pressed to save a changed value. See <i>Setting Operation Options</i> in Chapter 5 of the Owner's Manual.
Up Arrow	Increases display constants, see <i>Time</i> .
Down Arrow	Decreases display constants, see <i>Time</i> .
Enter	Required to save setup values. When pressed, display reads "UPdt."
Pause/End	Exit diagnostic mode and return to Dormant.

Stuck Key List

If “key” and a number is displayed, determine which key is stuck closed by referring to the list below. If a key is stuck closed, the upper or lower display overlay may need to be replaced. Follow the Display Overlay procedure located in this chapter.

1 Cal/Hr	11 Channel - (opt)	23 Weight
2 Aux	12 Time	24 Heart Symbol
3 Channel + (opt)	13 Cal	25 Pause/Stop
4 Cool Down	14 Programs	26 Quick Start
5 Mets	15 Arrow Up	27 Volume + (opt)
6 HR Control	16 Arrow Down	29 Scan
7 Level	17 Incline +	30 Manual
8 Enter	18 Speed +	32 Min/Mi/Km
9 Incline -	19 Volume - (opt)	
10 Speed -	21 Distance	

LED Functions

LEDs are used to indicate the status of many of the treadmill inputs. After entering *Test Mode* refer to the following list to check that these LEDs are functioning properly. See Figure 2.

Elevation sensor LED	On when 0% elevation sensor is active above 0% and off below 0%.
E-stop key sensor LED	Off when e-stop key is removed.
Speed sensor LED	Blinks on once per speed sensor pulse.
Heart rate sensor LED	Blinks on when hand grips are held and contact heart rate is activated. Holding grips turns heart symbol Blue, Polar signal turns heart symbol Red

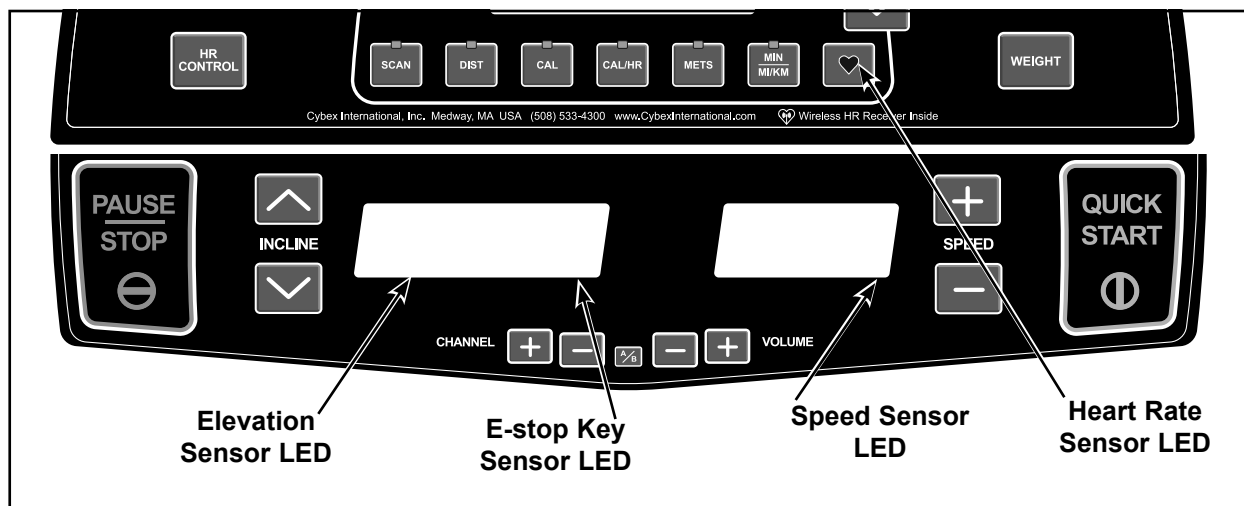


Figure 2 (Shown with optional channel and volume keys)

Error Codes

Error codes are a notification of a problem condition and are displayed on the console. These codes can also help to indicate the part of the treadmill most likely to be causing the problem.

NOTE: *Errors that present a hazard to the user provide a measure of safety by causing a one second beep, stopping the treadmill and locking out operation of the treadmill.*

Reset power by unplugging unit for a few seconds, then plug power cord into outlet.

A log of errors can be viewed and cleared. Enter *Test Mode* and press the **Pace (min/mi/km)** key to display the log. The most recent error is always first in the log. Press the **Pace** key again to cycle to the next the error stored. Up to 10 errors can be stored. Press the **Scan** key twice to clear the error log. Press **Pause/Stop** to exit *Test Mode*.

NOTE: *A processor upset can cause a bAd#. See H then G.*

Error	Description
bAd0	Bad checksum. See H then G.
bAd2	Internal RAM error. See H then G.
bAd3	Watchdog timeout. See H then G.
Err1	Belt didn't start (or no speed sense). See I, E, D, B then A.
Err2	Underspeed (2 mph for 2 seconds without correction in process). See I, E, C then B.
Err3	Speed sense lost. See I, E, A, B and C.
Err5	No 0 switch sense within timed limits. This is declared when the timed elevation reaches -2% without tripping the index. See F and A.
Err6	Overspeed (1 mph for 1 second or 2 mph for 0.2 seconds without correction). See I, E.
Err7	EEPROM error (memory lost, loads new defaults, enters <i>Test Mode</i>). See G.
ErrE	0% always on (or switch disconnected or wired backwards). This means that timed elevation has gone up 2% and the index is still sensed. See F.
SVC	Maintenance prompt. Is activated every 9,000 miles (14,484 km) for the 425T and every 12,000 miles (19,300 km) for the 445T . Display shows "SVC" and beeps every 2 minutes. In <i>Test Mode</i> press "Cool Down" and then press up and down arrows to display "RST" for reset. Press Enter to reset service odometer to zero.

Action

A Check lower board	F Check elevation motor
B Check drive motor	G Replace display board
C Check belt and deck	H Reset power by unplugging unit for a few seconds, then plug power cord into outlet.
D Check motor brushes	I Perform speed calibration procedure
E Check speed sensor	

Speed Sensor Adjustment

Tools Required

- Phillips screwdriver
- 1/2" open end wrench (2)



WARNING: *Disconnect the power cord before beginning this procedure.*

1. Disconnect the external power source.

- A. Turn main power switch to off (O) position
- B. Unplug the treadmill from the power outlet.

2. Remove the motor cover.

- A. Using a Phillips screwdriver, loosen two screws on each motor cover side (left and right). See Figure 3.
- B. Using a Phillips screwdriver, loosen two screws on the front motor cover. See Figure 3.
- C. Lift the motor cover up and off the treadmill. The screws will stay in place.

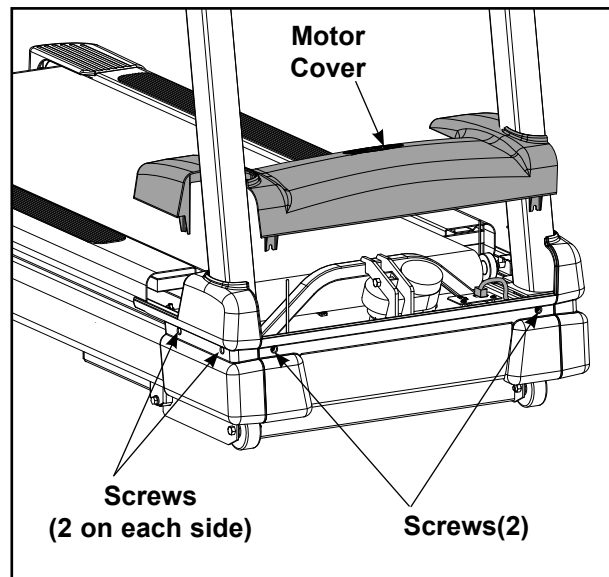


Figure 3

3. Adjust the speed sensor gap (if needed).

NOTE: *Do not overtighten nuts on plastic speed sensor housing.*

- A. Using two 1/2" open end wrenches, loosen the nuts that attach the speed sensor to the frame bracket. See Figure 4.
- B. Adjust the gap between the speed sensor and the magnet on the front roller to 1/4" (.635 cm) and tighten the two nuts. See Figure 4.

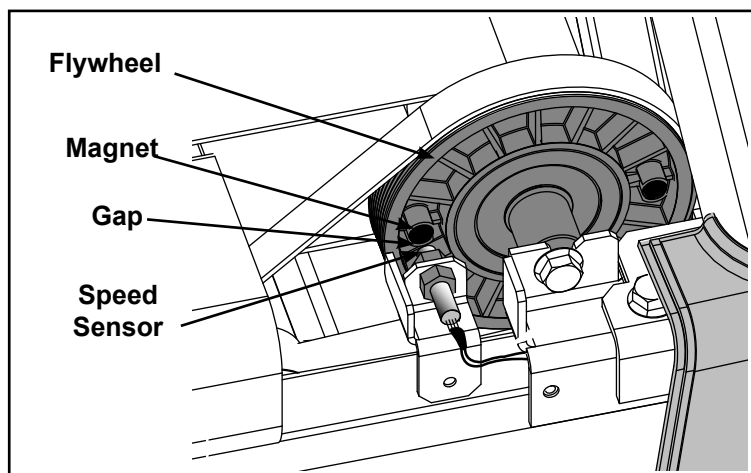


Figure 4

4. Test for speed errors.

- A. Connect the power cord to a power outlet.
- B. Turn the main power switch to the on (I) position.
- C. Bring the speed of the treadmill up to maximum speed, 11.0 mph (17.6 kph).
- D. After reaching maximum speed, reduce the speed to 1.0 mph (1.6 kph). If a speed error occurs then speed sensor gap needs to be readjusted.
- E. Press Pause/Stop.
- F. Enter Test Mode again and check the error log for Error 3. If any new errors occurred, readjust the speed sensor and test again. **NOTE:** *If unsure whether an error is new, clear the error log by pressing the scan key twice and then repeat steps 3A through 4E.*
- G. Exit Test Mode by pressing Pause/Stop.

5. Secure the motor cover.

- A. Lower the motor cover center into position. See Figure 3.
- B. Using a Phillips screwdriver, tighten the two screws on each side and the two screws in the front of the unit.

IR Compensation (445T Only)

NOTE: *This procedure may be required after replacing the lower control board or the drive motor. Perform this procedure if the running belt surges, vibrates or feels too slack.*

Tools Required

- Plastic (or non-conductive), flat head screwdriver

1. Please read instructions thoroughly before performing this procedure.

2. Perform the IR compensation procedure.

- A. While in *Dormant Mode* enter *Test Mode* by pressing and holding the **Heart Rate** and **Level** keys simultaneously for five seconds. When the keys are released “445T” will be shown on the display.
- B. While standing on the ground, press Start and then press the Speed Up key once to set the treadmill speed to 1.0 mph (1.6 kph).



CAUTION: *The belt will be jerky during the next step. Hold the handrail for support*

- C. Hold on to the handrails while stepping on the running belt, begin walking and notice how the belt feels, (the belt may surge, vibrate or slack). **NOTE:** If the running belt does not surge, vibrate or has too much slack IR Comp doesn't need to be adjusted.



CAUTION: *Always use proper lifting methods when moving heavy items.*

- D. Carefully lift the rear of the treadmill until the top of the console is resting on the floor.

- E. Locate the control labeled “IR COMP” in the motor plate. Remove the plug located in the center hole. **NOTE:** DO NOT use a metal screwdriver. DO NOT adjust the other two controls that look identical to the IR COMP control.
- F. Using a plastic small, flat head screwdriver, turn the IR control slightly in one direction as follows:
- Turn counter-clockwise to remove the slack from the belt
 - Turn clockwise to remove the vibration or surging from the belt
- G. Carefully lower the treadmill to the floor and retest by walking on the belt and adjusting the IR COMP control until the running belt does not surge, vibrate or has too much slack. **NOTE:** Belt should not be able to be easily stopped with feet.
- H. Install the plastic plug removed in step 2E.
- I. Press **Stop**.

Speed Calibration

1. Calibrate the speed.



- A. Stay off the running belt during this procedure.

CAUTION: During this procedure **STAY OFF THE RUNNING BELT! Stand with feet on the two steps.**

- B. In *Test Mode* press and hold the **Heart Rate** and **Time** keys. The display will show “CAL”. The running belt will accelerate to three different speeds and when completed the display will show “SAV”.
- C. Press **Pause/Stop** to exit *Test Mode*. **NOTE:** This procedure should be completed after replacing the upper display board, the lower control board or the drive motor. If **Pause/Stop** is pressed during this procedure the calibration will not be stored. Exiting *Test Mode* while the belt is moving may generate an error condition.

Running Belt and Deck

NOTE: During this procedure there is the option to remove the running deck, running belt, end caps, rear roller, front roller, rubber mounts and drive belt. Follow this procedure from step 1 even though the heading for some of these procedures will appear before the step where part is removed.

Tools Required

- Phillips screwdriver
- 7/16” socket wrench

1. Elevate the treadmill.

- A. Without standing on the belt, press the **Quick Start** key and begin running the treadmill.
- B. Press the up arrow and fully elevate the treadmill.

2. Disconnect the power.

- A. While the treadmill is still fully elevated and running, unplug the power cord from the wall outlet.

3. Remove the motor cover.

- A. Using a Phillips screwdriver, loosen two screws on each motor cover side (left and right). See Figure 3.
- B. Using a Phillips screwdriver, loosen two screws on the front motor cover. See Figure 3.
- C. Lift the motor cover up and off the treadmill. The screws will stay in place.

4. Remove the top platforms.



CAUTION: Always use proper lifting methods when moving heavy items.

- A. Carefully lift the rear of the treadmill until the top of the console is resting on the floor.
- B. Using a 7/16" socket wrench, remove the four bolts, split washers and flat washers that hold one of the top platforms in place. Repeat this step for the other side. See Figure 5.

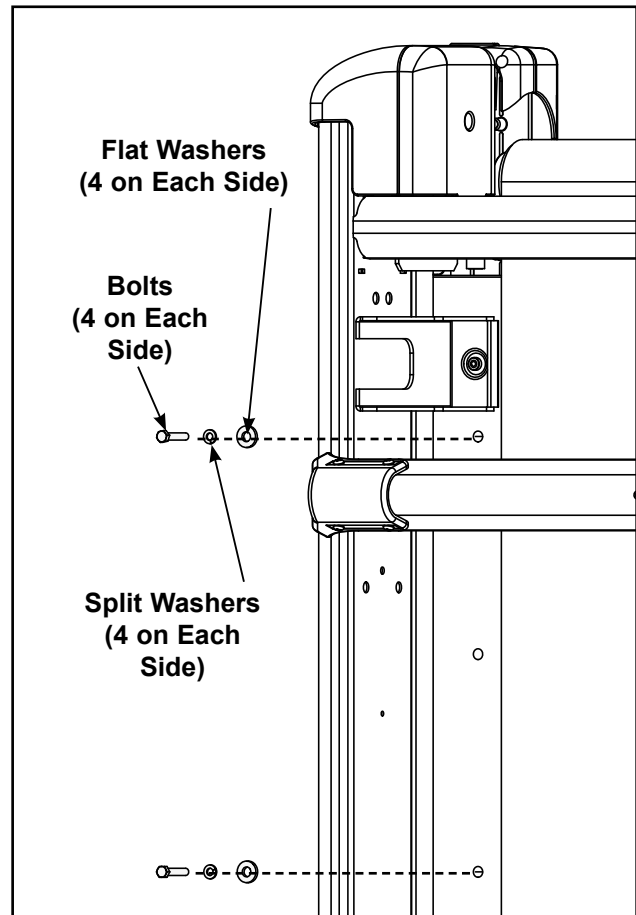


Figure 5

Deck Pivot – (445T Only)

Tools Required

- 9/16" socket wrench

1. Remove the deck pivot assembly.

- Using a 9/16" socket wrench, remove the two bolts securing the deck pivot shaft to the frame. See Figure 6. **NOTE:** There is one bolt at each end of the deck pivot shaft.
- With the deck pivot shaft out of the unit, remove the deck pivot brackets, bushings and the retaining rings. See Figure 7.

2. Install the deck pivot assembly.

- Install the retaining rings, bushings and the deck pivot brackets. See Figure 7.
- Using a 9/16" socket wrench, install the two bolts securing the deck pivot shaft to the frame. See Figure 7. **NOTE:** Make sure the deck pivot brackets are installed correctly.

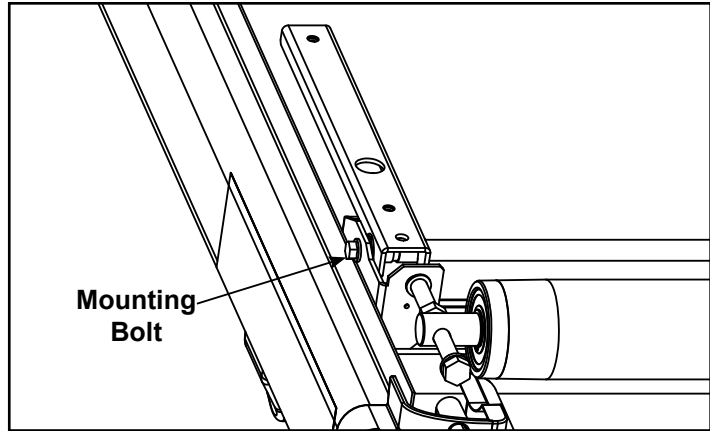


Figure 6

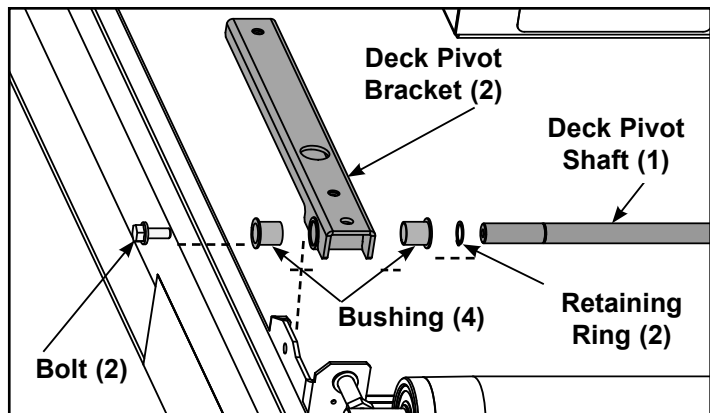


Figure 7

End Caps

Tools Required

- Phillips screwdriver

1. Remove the end caps.

- Using a Phillips screwdriver, remove the two screws securing each of the bottom caps to the frame. See Figure 8.
- Using a Phillips screwdriver, remove the three screws securing each of the lower top caps to the upper top caps. See Figure 9.

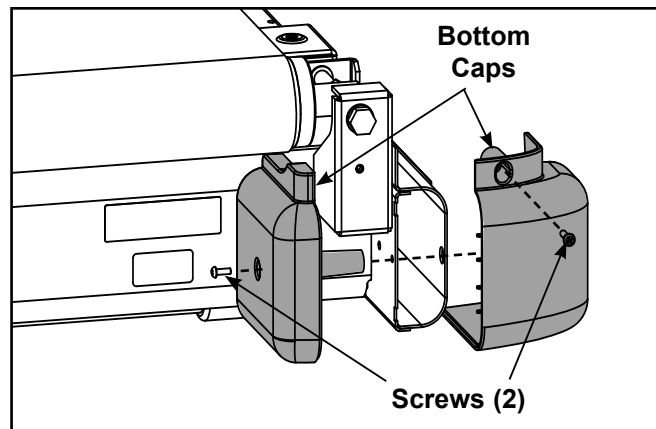


Figure 8

- C. Using a Phillips screwdriver, remove the two screws securing each of the upper top caps to the top platforms See Figure 9.

2. Install the end caps.

- A. Using a Phillips screwdriver, secure the two screws securing each of the bottom caps to the frame See Figure 9.
- B. Using a Phillips screwdriver, install the two screws securing each of the upper top caps to the top platforms. See Figure 9.
- C. Using a Phillips screwdriver, install the three screws securing each of the lower top caps to the upper top caps. See Figure 9.

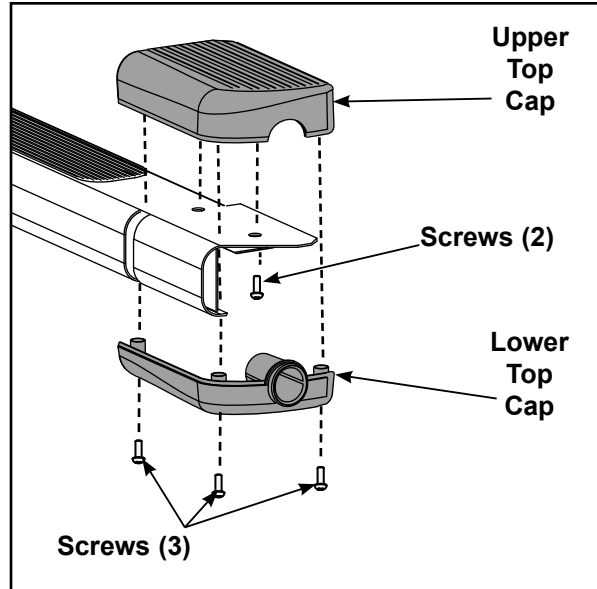


Figure 9

Rear Roller

Tools Required

- 3/4" socket wrench
- 7/16" socket wrench
- 3/16" Hex key

1. Remove the rear roller.

- A. Using a 3/4" socket wrench, remove the two rear roller bolts, bronze bushing and nut (one roller bolt on each side). **NOTE:** Loosen each bolt evenly, making sure not to loosen either bolt too many turns before moving to the other bolt. See Figure 10.
- B. Lift one side of the rear roller and slide the roller out of the running belt. **NOTE:** The nylon bushing and retaining ring will remain in the frame. See Figure 10.

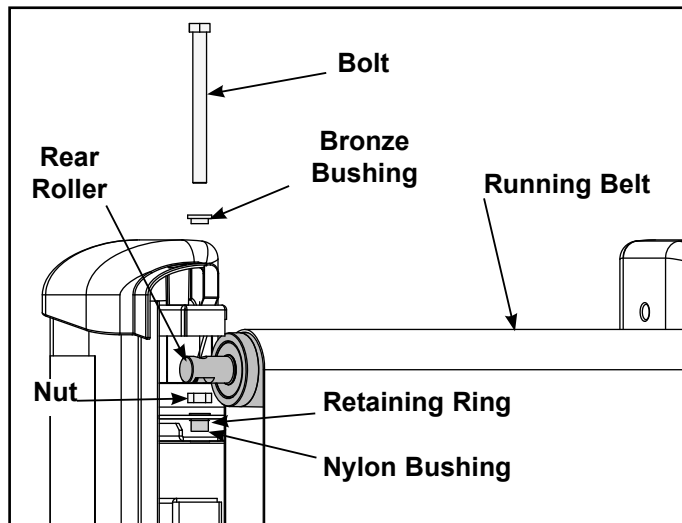


Figure 10

2. Remove the deck.

NOTE: If rotating or flipping the deck, make a note on the deck to know which way it was positioned.

- A. Using a 7/16" socket wrench, remove the two screws, two split washers and two flat washers that hold the back of the deck in place. See Figure 11.
- B. Using a 3/16" Hex key, remove the two screws, two split washers and two flat washers that hold the front of the deck in place. See Figure 11.
- C. Remove the deck by sliding it sideways out of the unit.

Front Roller



1. Remove the front roller.

WARNING: Drive belt is under tension. Do not pinch fingers while releasing tension.

Tools Required

- 3/4" socket wrench
- 7/16" socket wrench

- A. Release drive belt tension by placing a Phillips screwdriver into the square hole located in the bottom of the idler pulley assembly. See Figure 12.
- B. While pushing down on the Phillips screwdriver, carefully slide the drive belt off of the drive motor pulley. Slowly release tension on the idler pulley assembly.
- C. Using a 9/16" socket wrench, loosen the right front roller bolt. See Figure 13. **NOTE:** The right bolt will stay on the front roller. It does not need to be removed for this procedure.
- D. Using a 9/16" socket wrench, loosen the left front roller bolt. See Figure 13.
- E. Remove the front roller.

2. Remove the running belt.

- A. With the front and rear rollers out of the unit, remove the running belt.

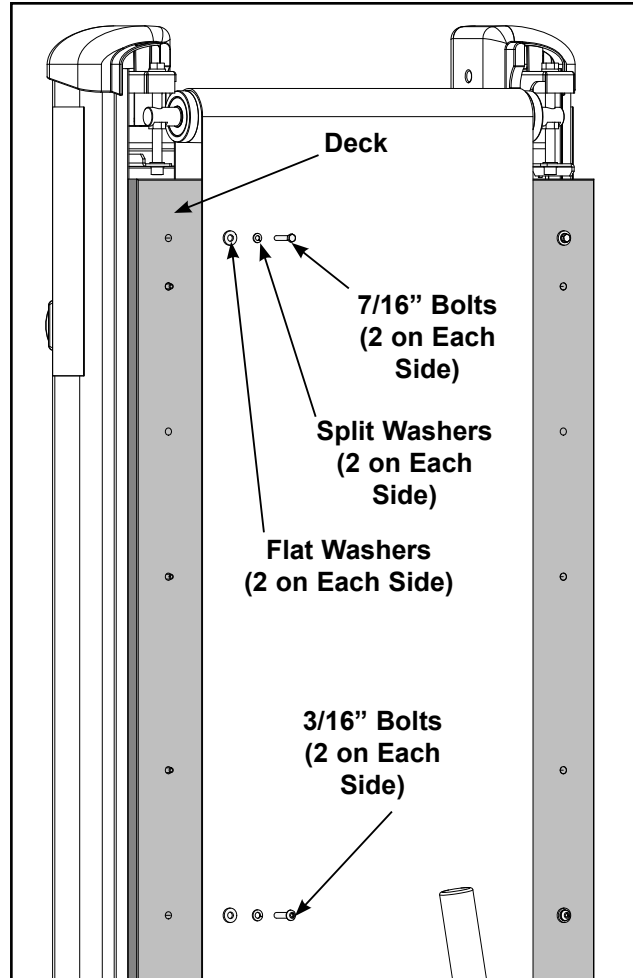


Figure 11

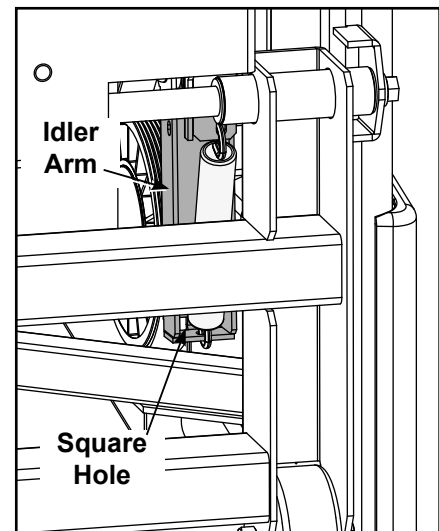


Figure 12

Inspect the Rubber Mounts

1. Inspect the rubber mounts under the deck stiffeners for cracks or wear.

NOTE: Unscrew and replace the rubber mounts if the rubber is cracked or worn.

Drive Belt

1. Remove the drive belt.

- A. If changing the drive belt, slip the drive belt around the flywheel pulley and off the motor.

2. Install the running belt.

3. Secure the front roller.

- A. Slide the front roller into the running belt.
- B. Slide the new drive belt around the front roller before attaching the front roller.
- C. Using a 9/16" socket wrench, attach the two bolts that fasten the front roller to the frame.

NOTE: Tighten each of the two bolts evenly, making sure not to tighten one bolt too many turns before moving to the other bolt.

4. Secure the drive belt.

- A. Place the Phillips screwdriver into the square hole located in the bottom of the idler pulley assembly.



WARNING: Do not pinch fingers while tensioning belt.

- B. While pushing down on the Phillips screwdriver, carefully slide the drive belt into the grooves on the flywheel pulley and front roller. Slowly release tension on the idler pulley assembly.
- C. Ensure that the drive belt is aligned properly in the grooves on the drive motor pulley and front roller pulley.

5. Secure the running deck.

- A. Place the deck in the correct position on the frame.
- B. Using a 7/16" socket wrench, install the two screws, two split washers and two flat washers that hold the back of the deck in place. See Figure 9.
- C. Using a 3/16" Hex key, install the two screws, two split washers and two flat washers that hold the front of the deck in place. See Figure 9.

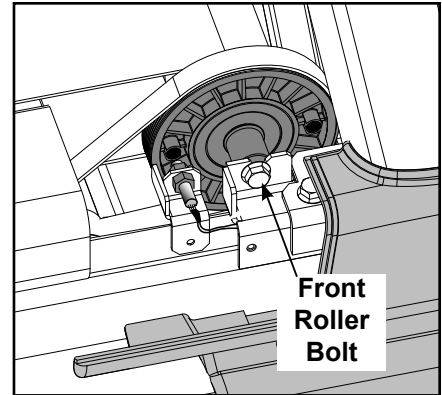


Figure 13

6. Secure the rear roller.

- A. Slide the rear roller into the running belt. See Figure 8.
- B. Install the bolt, bronze bushing and nut for each side of the roller into position. See Figure 11.
- C. Using a 3/4" socket wrench, tighten each rear roller bolt evenly, making sure not to tighten either bolt too many turns before moving to the other bolt. **NOTE:** *Do not overtighten the belt. Tensioning and centering belt is explained in step 20. See Figure 8.*

7. Secure the top platforms.

- A. Place each top step in position.
- B. Using a 7/16" socket wrench, install the four bolts, split washers and flat washers that hold each of the top platforms in place. Repeat this step for the other side. See Figure 5.

8. Secure the motor cover.



CAUTION: *Always use proper lifting methods when moving heavy items.*

- A. Carefully lower the treadmill to the ground.
- B. Lower the motor cover center into position. See Figure 3.
- C. Using a Phillips screwdriver, tighten the two screws on each side and the two screws in the front of the unit.

9. Adjust the running belt tension and tracking.

- A. Follow the **Tension and Center the Belt** procedure located in the *Preventive Maintenance* chapter of this manual.

Motor Brushes 110 VAC (425T Only)

Product Numbers **SK-18553**

NOTES: *This procedure describes the replacement of motor brushes on the 425T model treadmill.*

Motor brushes are wear items that will periodically need to be replaced.

Both drive motor brushes must be replaced as a pair. This will ensure even commutator contact and brush wear. However, the negative brush will wear 20% faster than the positive brush. Therefore, always measure the negative brush length to determine whether to replace the pair. The negative brush is located closest to the front of the frame. Still check the positive brush for cracks or chips.

It is not necessary to remove the drive motor in order to reach the motor brushes.

Tools Required

- Phillips screwdriver
- Flat head screwdriver
- 7/16" open end wrench
- 1/2" open end wrench



WARNING: Keep wet items away from inside parts of the treadmill. Electrical shock could occur even if the treadmill is unplugged. Motor brush removal and replacement should be performed by a qualified service technician.

1. Read and understand all instructions thoroughly before installing this kit.

2. Verify the kit contents shown in Figure 14.

- A. Brush Assembly, 110 VDC, Red (1)
- B. Brush Assembly, 110 VDC, Black (1)
- C. Brush Retainer, Molded (2)
- D. Wire tie, 18", EH-12260 (1)
- E. Wire tie, 9", EH-00986 (3)

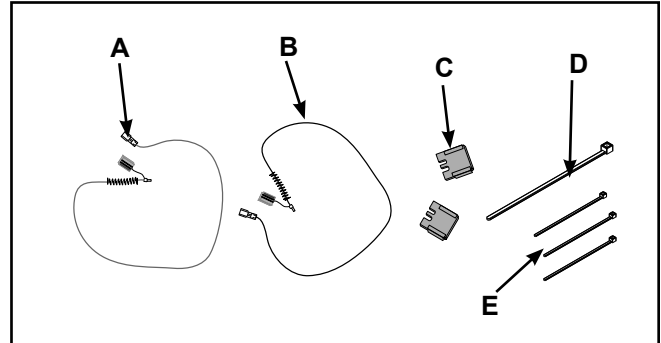


Figure 14

3. Remove motor cover.

- A. Using a Phillips screwdriver, loosen (but do not remove) the two screws securing the left motor cover in place. Loosen the two screws securing the right motor cover.

- B. Lift the top motor cover up and off of the treadmill.



4. Elevate the treadmill.

- A. Without standing on the belt, press the Start key and begin running the treadmill.
- B. Press the up arrow and elevate the treadmill fully.

5. Disconnect the power.

- A. While the treadmill is still fully elevated and running unplug the power cord from the wall outlet.

6. Access drive motor.

- A. Carefully lift the rear of the treadmill until the top of the console is resting on the ground.



WARNING: Drive belt is under tension. Do not pinch fingers while releasing tension.

- B. Release drive belt tension by placing the Phillips screwdriver into the square hole located in the bottom of the idler pulley assembly. See Figure 12.
- C. While pushing down on the Phillips screwdriver, carefully slide the drive belt off of the drive motor pulley. Slowly release tension on the idler pulley assembly.



WARNING: Motor plate is heavy and will drop down when motor plate bolts are removed.

- D. Using a 1/2" open end wrench, remove the two motor plate bolts and washers. See Figure 18.
- E. Slowly and carefully lower the drive motor plate. See Figure 18.

7. Disconnect the motor cables.

- A. Locate the red and black drive motor cables exiting the drive motor and connected to A1 and A2 on the lower control board. See Figure 20a (425T) or 20b (445T).

- B. Disconnect the two motor cables from the lower board.



WARNING: Avoid touching lower board components such as resistors and capacitors.

- C. Cut the wire ties securing the drive motor cables to the drive motor housing and other cables on the lower control board.
- D. Remove the ferrite from the two motor cables. Set aside for installation in step 11D.
- E. Using the 7/16" open end wrench, loosen the nut securing the wire clamp retainer at the end of the motor. Remove drive motor cables from retainer.

8. Remove the black brush assembly.

- A. Using a large flat head screwdriver, pry out the brush retainer on the drive motor that secures the black wire. The brush and spring will pop out.

9. Examine the brush and commutator.

- A. Inspect the commutator by looking through the top brush holder into the motor. Slowly spin the motor by turning the flywheel. Look for noticeable damage and for signs of wear such as arcing, pitting, burning, or uneven wear. Commutator bars that are 'dirty penny' brownish copper are in great condition. Also, some commutator bars may be pitted or blackened on one edge. Too many of these indicate a worn commutator, and the motor should be replaced. The commutator may be cleaned with narrow commutator stone if carbon build-up is present. Brush dust can be loosened from the motor surfaces where the brush is placed by lightly filing the inside edges of the brush holder in the motor casing. Dirt and brush dust should be vacuumed out of the motor.
- B. Inspect the brushes for signs of excessive wear or cracks. The motor brushes must be replaced if one or both is worn to .375" (9.5 mm) or less in length, is broken or chipped, has a broken spring, or binds in the motor. See Figure 15.

10. Replace the black brush assembly.

- A. Slide the new brush into the motor brush holder. If the new brush does not slide in and out easily, the edges or corners of the brush can be lightly filed down. If cleaning the motor, (see step 9A), and filing the brush doesn't allow the brush to slide easily in the brush holder, the motor should be replaced.

NOTE: The motor may make a clicking noise as new brushes wear in. When reinstalling the original brushes, it is good to install them facing their original position. Reversing the orientation of the brush can cause a clicking noise during operation until the brushes wear in.

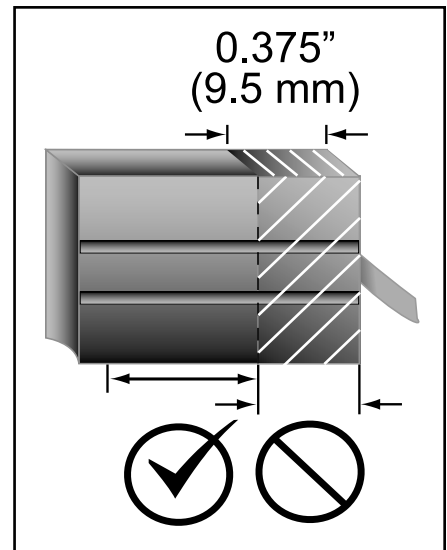


Figure 15

- B. Fully compress the spring by pushing as far into the brush holder as possible.
- C. While compressing the spring, place the new brush retainer into the motor housing until the brush retainer is fully seated into the motor housing.
- D. Repeat steps 8A to 10B for the red brush assembly.

11. Connect the drive motor cables.

- A. Place the new drive motor cables into the wire clamp retainer at the end of the motor.
- B. Using the 7/16" open end wrench, tighten the nut securing the drive motor cables in the wire clamp retainer.
- C. Secure the drive motor cables to the drive motor housing with a wire tie.

- D. Attach the ferrite removed in step 7D around the two drive motor cables.
- E. Connect the drive motor cables to the lower board. The black wire connects to A2, The red wire connects to A1



WARNING: Avoid touching lower board components such as resistors and capacitors.

- F. Secure the drive motor cables to the other cables in the lower control board with two wire ties.

12. Secure drive motor plate

- A. Slowly and carefully raise the drive motor plate.
- B. Using a 1/2" open end wrench, secure the two motor plate bolts and washers removed in step 6D.

13. Install drive belt.

- A. Place the Phillips screwdriver into the square hole located in the bottom of the idler pulley assembly. See Figure 12.



WARNING: Do not pinch fingers while tensioning belt.

- B. While pushing down on the Phillips screwdriver, carefully slide the drive belt into the grooves on the drive motor pulley and front roller. Slowly release tension on the idler pulley assembly.
- C. Ensure that the drive belt is aligned properly in the grooves on the drive motor pulley and front roller pulley.

14. Lower treadmill.

- A. Carefully lower the rear of the treadmill until the back feet are resting on the ground.

15. Install motor cover.

- A. Place the top motor cover into position.
- B. Using a Phillips screwdriver, tighten the two screws securing the left motor cover in place. Tighten the two screws securing the right motor cover.

16. Test the unit for proper operation.

- A. Connect the treadmill to the power outlet.
- B. The treadmill will lower itself. Wait until the treadmill resets its elevation to 0%.
- C. Operate the unit at all levels to verify proper operation.

Motor Brushes – 425T 220 VAC and 445T 110/220 VAC

Product Number **SK-18554**

NOTES: This procedure describes the replacement of motor brushes in the following models: 425T 220 VDC, 445T 110/220 VDC.

Motor brushes are wear items that will periodically need to be replaced.

Both drive motor brushes must be replaced as a pair. This will ensure even commutator contact and brush wear. However, the negative brush will wear 20% faster than the positive brush. Therefore, always measure the negative brush length to determine whether to replace the pair. The negative brush is located closest to the front of the frame. Still check the positive brush for cracks or chips.

Tools Required

- Flat head screwdriver
- Phillips screwdriver
- 1/2" socket wrench
- 7/16" open end wrench
- Wire cutters
- 90 Degree needle nose pliers



WARNING: Keep wet items away from inside parts of the treadmill. Electrical shock could occur even if the treadmill is unplugged. This procedure should be performed by a qualified service technician.

1. Read and understand all instructions thoroughly before installing this kit.

2. Verify the kit contents shown in Figure 16.

- A. Brush Assembly (1)
- B. Brush Assembly, with wear indicator wire (1)
- C. Spring Assembly (2)
- D. Cover, Brush access (2)

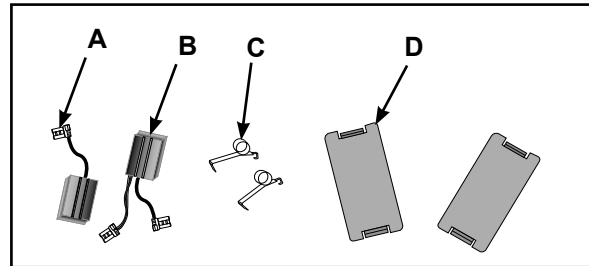


Figure 16

3. Access the motor brushes.

- A. While in *Dormant Mode* enter *Test Mode* by holding down the **Heart Rate** and **Level** keys simultaneously for five seconds.

- B. Press the up arrow and elevate the treadmill fully.

4. Disconnect the power.

- A. While the treadmill is still fully elevated, unplug the power cord from the wall outlet.
- B. Carefully lift the rear of the treadmill until the top of the console is resting on the ground.

5. Remove the brush access covers.

- A. Using a flat head screwdriver, pry off both brush access covers on the drive motor.

6. Remove the brushes.

NOTE: Take note of which brush contains the yellow brush sense wire. It is located closest to the drive motor cable outlet.

- A. Using the 90 degree needle nose pliers, pry the brush wire connector off of the terminal in the drive motor.
- B. Using fingers, press in the spring clip until the locking tab disengages and the spring can be removed from the brush holder.
- C. Repeat steps 6A and 6B for other brush.

7. Examine the brush and commutator.

- A. Inspect the commutator by looking through the top brush holder into the motor. Slowly spin the motor by turning the flywheel. Look for noticeable damage and for signs of wear such as arcing, pitting, burning, or uneven wear. Commutator bars that are 'dirty penny' brownish copper are in great condition. Also, some commutator bars may be pitted or blackened on one edge. Too many of these indicate a worn commutator, and the motor should be replaced. The commutator may be cleaned with narrow commutator stone if carbon build-up is present. Brush dust can be loosened from the motor surfaces where the brush is placed by lightly filing the surfaces. Dirt and brush dust should be vacuumed out of the motor.
- B. Inspect the brushes for signs of excessive wear or cracks. The motor brushes must be replaced if one or both is worn to 5/16" (8.0 mm) or less in length, is broken or chipped, has a broken spring, or binds in the motor. See Figure 17.

8. Replace the brushes.

NOTE: 425T model treadmills do not use the yellow brush sense wire. Locate the brush with the yellow brush sense wire. For the 425T model treadmill, use the wire cutters to cut the yellow wire off the brush near the base.

NOTE: Install the brush (B) with the yellow brush sense wire first. It is located closest to the drive motor cable outlet.

- A. Slide the new brush (B) into the motor brush holder. If the new brush does not slide in and out easily, the edges or corners of the brush can be lightly filed down. If cleaning the motor, (see step 7A), and filing the brush doesn't allow the brush to slide easily in the brush holder, the motor should be replaced.

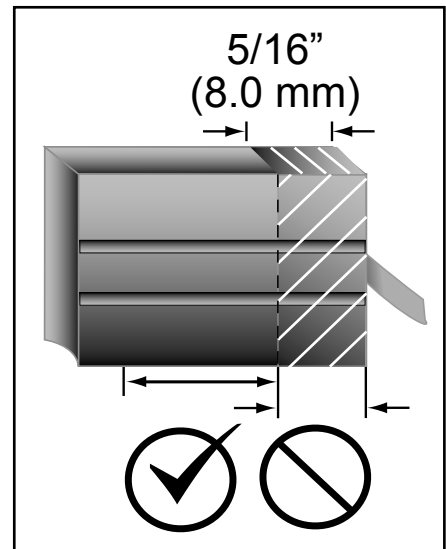


Figure 17

NOTE: The motor may make a clicking noise as new brushes wear in. If reinstalling the original brushes it is good to install them facing their original position. Reversing the orientation of the brush can cause a clicking noise during operation until the brushes wear in.

- B. Insert a new spring assembly (C) into the brush housing until the locking tab engages.
- C. Using the 90 degree needle nose pliers, slide the brush wire connector onto the drive motor terminal.
- D. Install a new brush access cover (D) by pressing until the end tabs click into place.
- E. Repeat steps 8A to 8D for the other brush (A).

9. Lower treadmill.

- A. Carefully lower the rear of the treadmill until the back feet are resting on the ground.

10. Test the unit for proper operation.

- A. Connect the treadmill to the power outlet.
- B. The treadmill will lower itself. Wait until the treadmill resets its elevation to 0%.
- C. Operate the unit at all levels to verify proper operation.

Drive Motor

Tools Required

- Phillips screwdriver
- 1/2" Open end wrench
- 1/2" Socket wrench with a 6" extension



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

1. Disconnect the external power source.

- A. Without standing on the belt, press the Start key and begin running the treadmill.
- B. Press the up arrow and elevate the treadmill fully.
- C. While the treadmill is still fully elevated and running unplug the power cord from the wall outlet.

2. Remove the motor cover.

- A. Using a Phillips screwdriver, loosen two screws on each motor cover side (left and right). See Figure 3.
- B. Using a Phillips screwdriver, loosen two screws on the front motor cover. See Figure 3.
- C. Lift the motor cover up and off the treadmill. The screws will stay in place.

3. Release the drive belt tension.

- A. Release drive belt tension by placing a Phillips screwdriver into the square hole located in the bottom of the idler pulley assembly. See Figure 12.
- B. While pushing down on the Phillips screwdriver, carefully slide the drive belt off of the drive motor pulley. Slowly release tension on the idler pulley assembly.



4. Access drive motor.

WARNING: *Motor plate is heavy and will drop down when motor plate bolts are removed.*

- A. Carefully lift the rear of the treadmill until the top of the console is resting on the ground.
- B. Using a 1/2" open end wrench, remove the two motor plate bolts. See Figure 18.

C. Slowly and carefully lower the drive motor plate.

5. Disconnect the motor cables.

- A. Locate the red and black drive motor cables exiting the drive motor and connected to A1 and A2 on the lower control board.
- B. Disconnect the two motor cables from the lower board.



WARNING: Avoid touching lower board components such as resistors and capacitors.

- C. Cut the wire ties securing the drive motor cables to the lower control board bracket.
- D. Remove the ferrite from the two motor cables. Set aside for installation in step 8C. (For 425T, skip to Step 6).
- E. Remove the yellow brush sense wire connected to terminal BW on the lower control board.

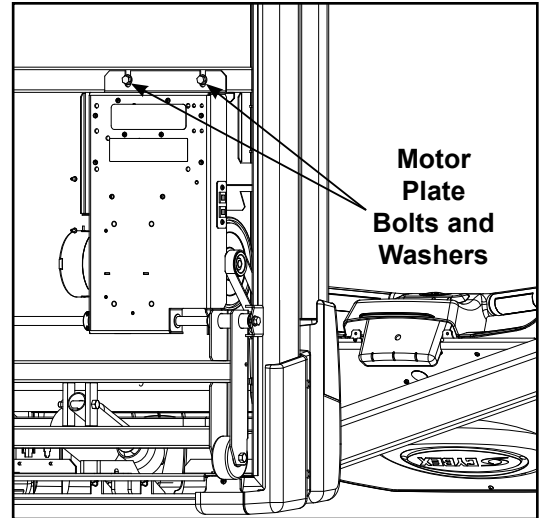


Figure 18

6. Remove Drive motor.

- A. Using a 1/2" socket with a 6" extension, remove the four mounting nuts securing the drive motor to the motor base plate. See Figure 19a for 425T and Figure 19b for 445T .

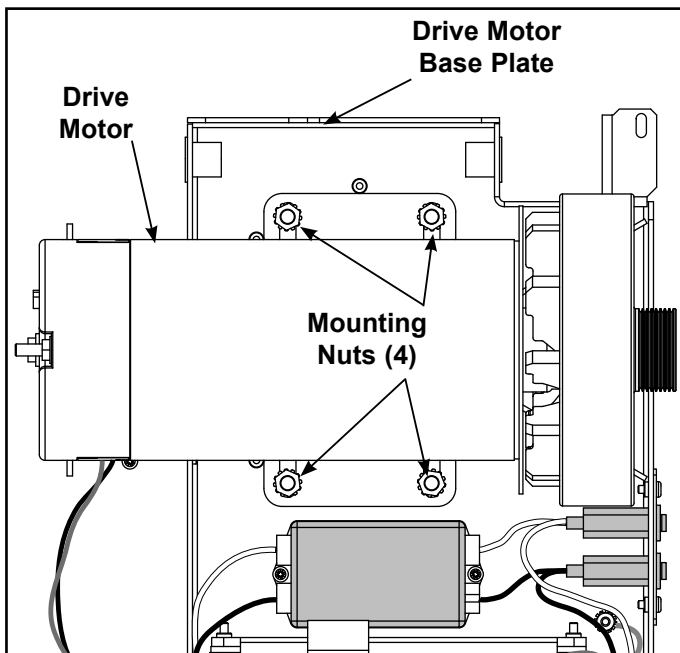


Figure 19a (425T)

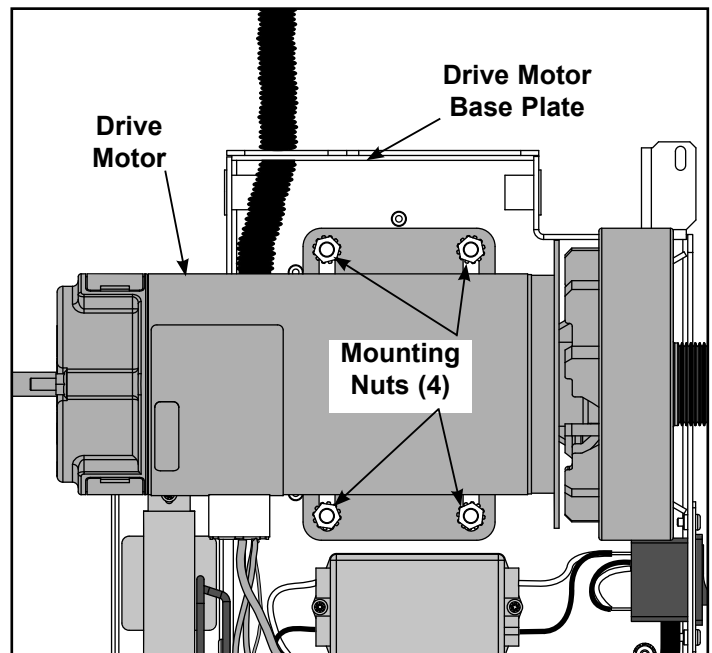


Figure 19b (445T)



WARNING: Drive Motor is heavy, use care when lifting.

- B. Lift the drive motor up and out of the motor base plate.

7. Install Drive motor.



WARNING: Drive Motor is heavy, use care when lifting.

- A. Lift the drive motor up and into the motor base plate.
- B. Using a 1/2" socket with a 6" extension, secure the drive motor to the motor base plate using four mounting nuts.

8. Connect the motor cables.

- A. **For the 425T**, locate the red and black drive motor cables exiting the drive motor. **For the 445T**, locate the red, black and yellow drive motor cables exiting the drive motor.
- B. Connect the (two 425T motor cables) **OR** (three 445T motor cables) from the lower board.



WARNING: Avoid touching lower board components such as resistors and capacitors.

- C. Install the ferrite to the two red and black motor cables.
- D. Using wire ties secure the drive motor cables to the lower control board bracket.

NOTE: The calibration procedure will need to be completed after replacing the drive motor. Follow the **Speed Calibration** procedure located in this chapter.

Lower Control Board – 425T

NOTE: This procedure will cover the lower control board, power cord, circuit breakers and line filter. Follow this procedure from step 1 even though the heading for some of these procedures will appear before the step where part is removed.

Tools Required

- Phillips screwdriver
- ESD (Electro Static Discharge) grounding strap



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

1. Disconnect the cables from the lower control board.

- A. Disconnect the cables from the lower control board. This includes: the elevation motor cables (COM, UP, DOWN and GND); Ground cable; elevation switch (P1); display cable (P3); speed sensor (P2); display cable (P4); AC line hot, black (AC1); AC line neutral, white (AC2); drive motor cable red (A1) and drive motor cable black (A2). See Figure 20a.

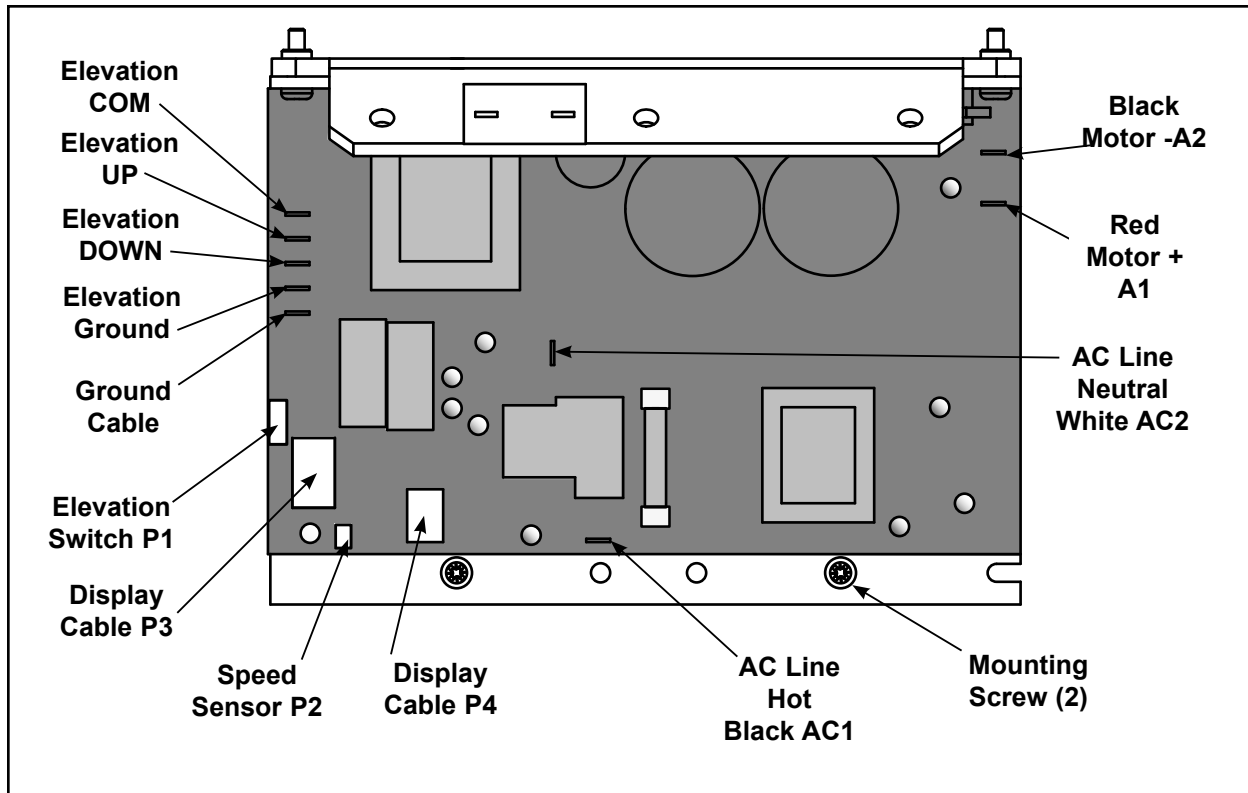


Figure 20a

NOTE: The lower control board is susceptible to damage from a discharge of static electricity. While handling the lower control board use an ESD grounding strap. This eliminates the potential voltage (static) difference between technician and equipment. Wear an ESD strap for the rest of this procedure.

2. Remove the lower control board.

- A. Raise the motor base plate.
- B. Using a Phillips screwdriver, remove the two screws that hold the lower control board to the motor base plate.
- C. Lower the motor base plate.
- D. Using a Phillips screwdriver, remove the two other screws that hold the lower control board to the motor base plate. See Figure 20a.
- E. Remove the lower board. **NOTE:** Cybex may want this part back for evaluation. See contact information in **Chapter 4 – Customer Service**.

3. Replace the lower control board and bracket.

- A. Position the lower control board bracket in place on the motor base plate.
- B. Install the two screws that hold the lower control board to the motor base plate. Do not fully tighten at this time.
- C. Raise the motor base plate.
- D. Using a Phillips screwdriver, secure the two screws that hold the lower control board to the motor base plate.

E. Lower the motor base plate and fully tighten the screws installed in step 3B.

4. Connect the cables to the lower control board.

A. Connect the cables from the lower control board. This includes: the elevation motor cables (COM, UP, DOWN and GND); Ground cable; elevation switch (P1); display cable (P3); speed sensor (P2); display cable (P4); AC line hot, black (AC1); AC line neutral, white (AC2); drive motor cable red (A1) and drive motor cable black (A2). See Figure 20a.

5. Secure the wires.

A. Check to see that all of the cables are connected firmly in their proper place.

NOTE: The calibration procedure will need to be completed after replacing the lower control board. Follow the Speed Calibration procedure located in this chapter.

Lower Control Board – 445T

NOTE: This procedure will cover the lower control board, power cord, on/off switch and line filter. Follow this procedure from step 1 even though the heading for some of these procedures will appear before the step where part is removed.

Tools Required

- Phillips screwdriver
- ESD (Electro Static Discharge) grounding strap



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

NOTE: The lower control board is susceptible to damage from a discharge of static electricity. While handling parts underneath the console cover use an ESD grounding strap. This eliminates the potential voltage (static) difference between technician and the equipment. Wear an ESD strap for the rest of this procedure.

1. Disconnect the cables from the lower control board.

A. Disconnect the cables from the lower control board. This includes: the elevation cable (J3); display cable (P1); display cable (P2); speed sensor (J1); AC line 1, black (AC1); AC line 2, white (AC2); drive motor cable + red (A1); drive motor cable - black (A2) and brush wear cable yellow (BW). See Figure 20b.

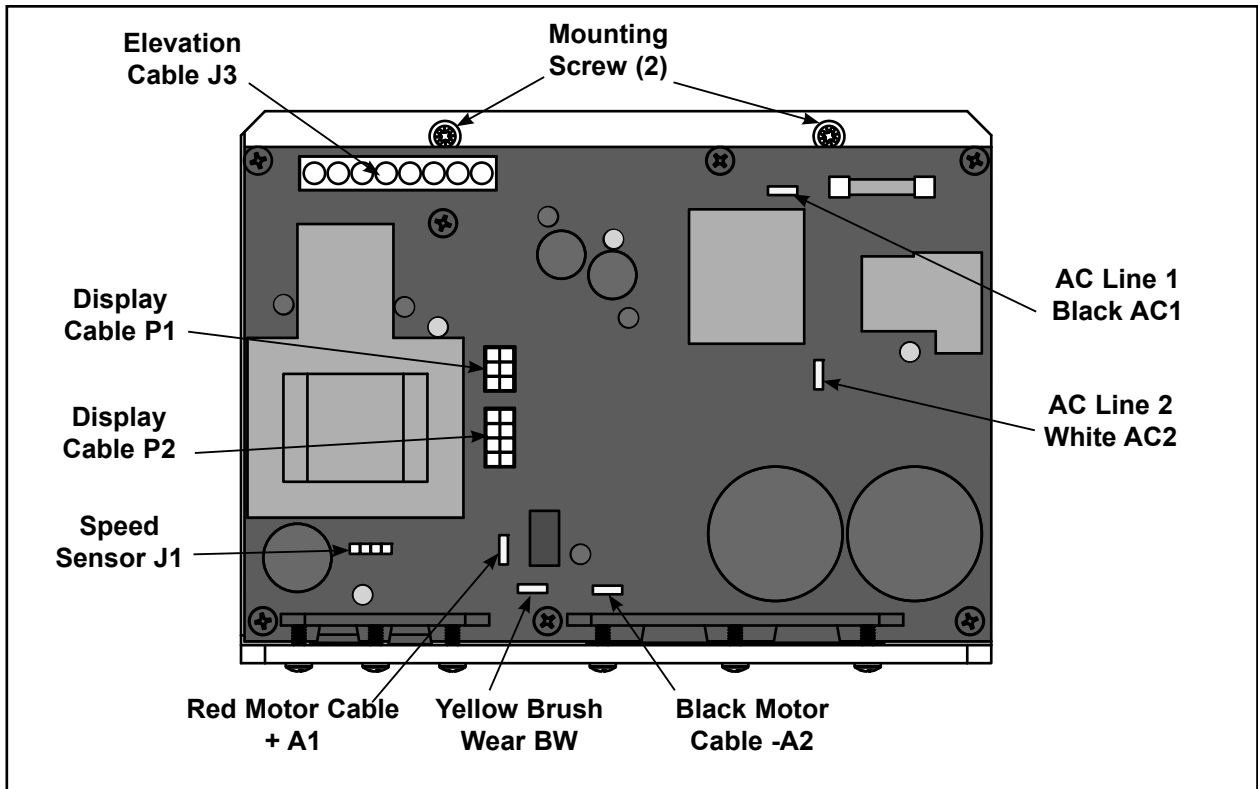


Figure 20b

2. Remove the lower control board.

- A. Raise the motor base plate.
- B. Using a Phillips screwdriver, remove the two screws that hold the lower control board to the motor base plate.
- C. Lower the motor base plate.
- D. Using a Phillips screwdriver, remove the two screws that hold the lower control board to the motor base plate. See figure 20b.
- E. Remove the lower board. **NOTE:** Cybex may want this part back for evaluation. See contact information in **Chapter 4 – Customer Service**.

3. Replace the lower control board and bracket.

- A. Position the lower control board bracket in place on the motor base plate.
- B. Using a Phillips screwdriver, install the two screws that hold the lower control board to the motor base plate. Do not fully tighten at this time.
- C. Raise the motor base plate.
- D. Using a Phillips screwdriver, install the two screws that hold the lower control board to the motor base plate.
- E. Lower the motor base plate and fully tighten the screws installed in step 3B.

4. Connect the cables to the lower control board.

- A. Connect the cables from the lower control board. This includes: the elevation cable (J3); display cable (P1); display cable (P2); speed sensor (J1); AC line 1, black (AC1); AC line 2, white (AC2); drive motor cable + red (A1); drive motor cable - black (A2) and brush wear cable yellow (BW). See Figure 20.

5. Secure the wires.

- A. Check to see that all of the cables are connected firmly in their proper place.

NOTE: The calibration procedure will need to be completed after replacing the lower control board. Follow the **Speed Calibration** procedure located in this chapter.

Power Cord – 425T

Tools Required

- 3/8" Nut driver or socket wrench
- ESD (Electro Static Discharge) grounding strap



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

1. Disconnect the external power source.

- A. Unplug the treadmill from the power outlet.

2. Remove power cord.

- A. Using a 3/8" nut driver or socket wrench, remove the nut securing the ground wire to the motor base plate. See Figure 21a.
- B. Unplug the black and white fast-on connectors from the circuit breakers. See Figure 21a.
- C. Remove the old power cord and discard.

3. Install the power cord.

- A. Insert the new power cord through the strain relief in the motor base plate.

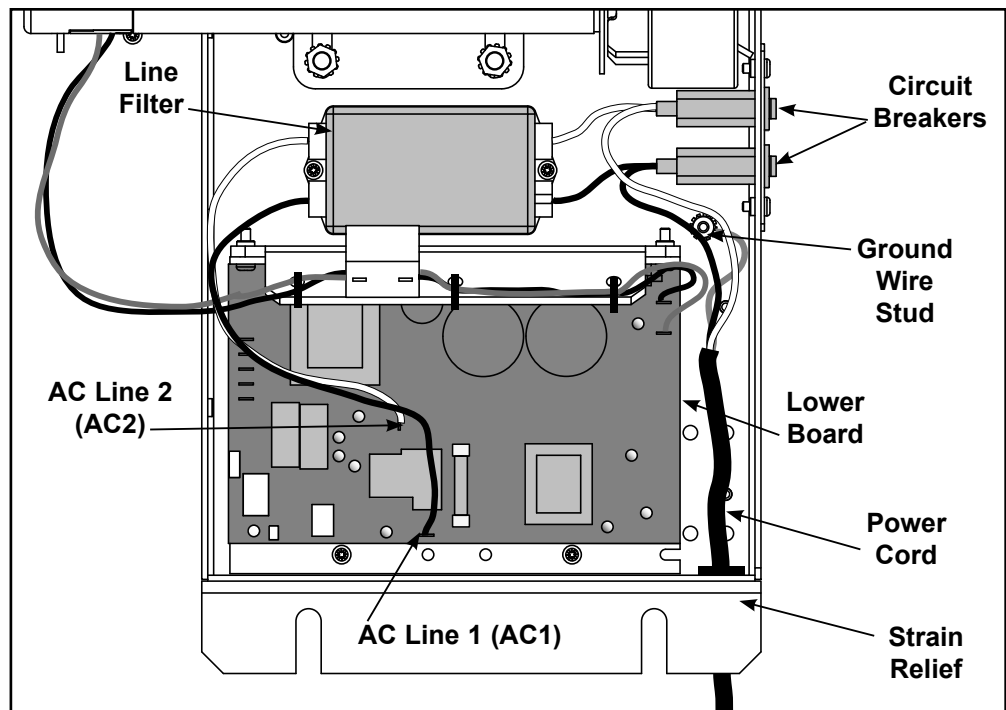


Figure 21a (425T)

- B. Using a 3/8" nut driver or socket wrench, secure the ground wire to the motor base plate.

NOTE: Each circuit breaker must have the same color cable connected to it. DO NOT mix the black and white wires.

- C. Connect the black fast-on connectors from the power cord to the circuit breaker with the black wire. See Figure 21a.

- D. Connect the white fast-on connectors from the power cord to the circuit breaker with the white wire. See Figure 21a.

Power Cord – 445T

Tools Required

- 3/8" Nut driver or socket wrench
- ESD (Electro Static Discharge) grounding strap.



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

1. Disconnect the external power source.

- A. Turn the main power switch on the right side to the off (O) position.
- B. Unplug the treadmill from the power outlet.

2. Remove power cord.

- A. Using a 3/8" nut driver or socket wrench, remove the nut securing the ground wire to the motor base plate. See Figure 21b.

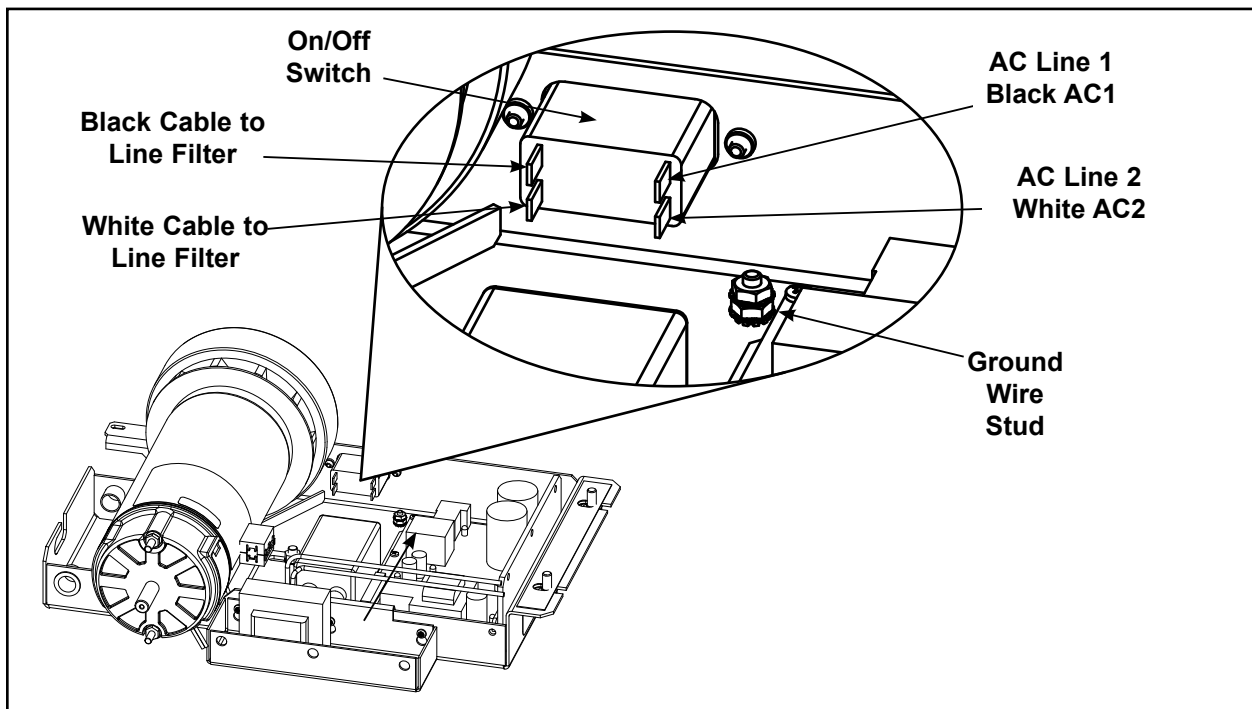


Figure 21b (445T)

- B. Connect the white fast-on connector from the power cord to the on/off switch as shown in Figure 21b.
- C. Remove the old power cord and discard.

3. Install the power cord.

- A. Insert the new power cord through the strain relief in the motor base plate.
- B. Using a 3/8" nut driver or socket wrench, secure the ground wire to the motor base plate.
- C. Connect the black fast-on connector from the power cord to the on/off switch as shown in Figure 21b
- D. Connect the white fast-on connector from the power cord to the on/off switch as shown in Figure 21b.

Circuit Breakers – (425T Only)

Tools Required

- Flat head screwdriver

1. Remove the circuit breakers.

- A. Disconnect the four fast-on connectors that connect to the circuit breakers.
- B. Using a flat head screwdriver, press the mounting clip on the circuit breaker and tilt the circuit breaker sideways.
- C. Using the flat head screwdriver, press in the other mounting clip and remove the circuit breaker from the mounting plate. Repeat for the other circuit breaker.

2. Install the circuit breakers.

- A. Insert the new circuit breakers into the holes in the mounting plates until they snap in.

NOTE: *Each circuit breaker must have the same color cable connected to it. DO NOT mix the black and white wires.*

- B. Connect the two white fast-on connectors the front circuit breaker. See Figure 21a.
- C. Connect the two black fast-on connectors the front circuit breaker. See Figure 21a.

On/Off Switch - (445T Only)

Tools Required

- Phillips screwdriver

1. Remove the on/off switch.

- A. Disconnect the four fast-on connectors that connect to the on/off switch.
- B. Using a Phillips screwdriver, Remove the two Phillips screws from the drive motor base. See Figure 22.

2. Install the on/off switch.

NOTE: Position On/Off Switch with On (I) towards front of drive motor base.

- A. Insert the new on/off switch into the hole in the drive motor base.
- B. Using a Phillips screwdriver, Secure the on/off switch with the two Phillips screws removed in step 1B. See Figure 22.

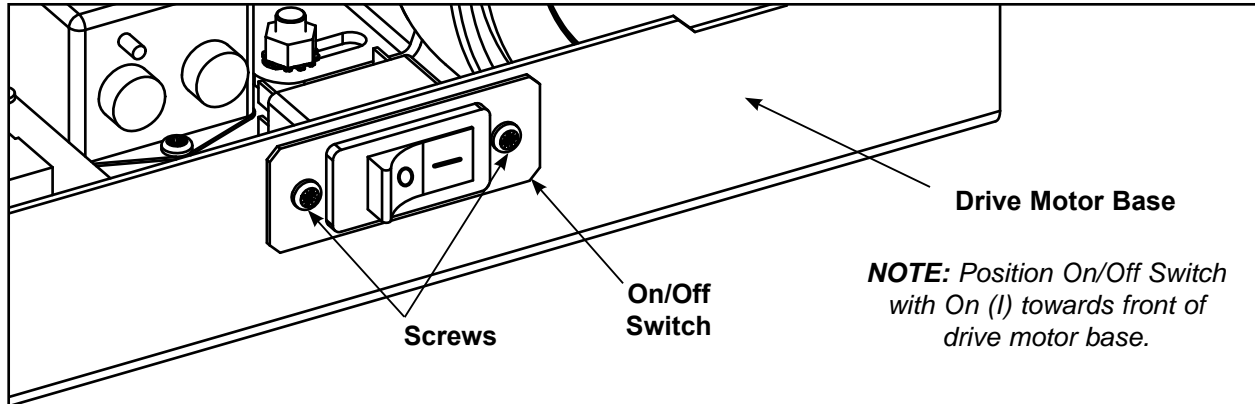


Figure 22

- C. Connect the two white fast-on connectors the on/off switch as shown in Figure 22.
- D. Connect the two black fast-on connectors the on/off switch as shown in Figure 22.

Line Filter

Tools Required

- Phillips screwdriver

1. Replace the line filter.

NOTE: Take notice of which cables are connected to the line filter.

- A. Disconnect the two fast-ons connectors that go from the line filter to the lower board (cables labeled AC1 and AC2 on the lower board). See Figure 21a or 21b.
- B. Disconnect the two fast-ons connectors that go from the line filter to the circuit breakers. See Figure 21a or 21b.
- C. Using a Phillips screwdriver, remove the two screws that hold the line filter to the motor base plate.
- D. Place the new line filter in position on the motor base plate.
- E. Using a Phillips screwdriver, secure the two screws that hold the line filter to the lower control bracket.

2. Connect the line filter cables.

- A. Connect the white cable (AC2) from the lower board to the front left terminal on the line filter. See Figure 21a or 21b.
- B. Connect the black cable (AC1) from the lower board to the back left terminal on the line filter. See Figure 21a or 21b.
- C. Connect the white cable from the circuit breaker to the front right terminal on the line filter. See Figure 21a or 21b.

- D. Connect the black cable from the circuit breaker to the back right terminal on the line filter. See Figure 21a or 21b.

NOTE: Do not connect a cable to the line filter terminal on the upper right side.

3. Attach drive motor plate.



WARNING: Motor plate is heavy and will drop down when motor plate bolts are removed.

- A. Slowly and carefully raise the drive motor plate.
- B. Using a 1/2" open end wrench, install the two motor plate bolts and washers. See Figure 21a.

4. Secure the drive belt.

- A. Place the Phillips screwdriver into the square hole located in the bottom of the idler pulley assembly.



WARNING: Do not pinch fingers while tensioning belt.

- B. While pushing down on the Phillips screwdriver carefully slide the drive belt into the grooves on the flywheel pulley and front roller. Slowly release tension on the idler pulley assembly.
- C. Ensure that the drive belt is aligned properly in the grooves on the drive motor pulley and front roller pulley.

5. Lower treadmill.

- A. Carefully lower the rear of the treadmill until the back feet are resting on the ground.

6. Install motor cover.

- A. Place the top motor cover into position.
- B. Using a Phillips screwdriver tighten the two screws securing the left motor cover in place. Tighten the two screws securing the right motor cover.

7. Test the unit for proper operation.

- A. Connect the treadmill to the power outlet.
- B. The treadmill will lower itself. Wait until the treadmill resets its elevation to 0%.
- C. Operate the unit at all levels to verify proper operation.

Elevation Motor

Tools Required

- Phillips screwdriver
- 9/16" Open end wrench
- 9/16" Socket wrench



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

1. Disconnect the external power source.

- Unplug the treadmill from the power outlet.

2. Remove the motor cover.

- Using a Phillips screwdriver, loosen two screws on each motor cover side (left and right). See Figure 3.
- Using a Phillips screwdriver, loosen two screws on the front motor cover. See Figure 3.
- Lift the motor cover up and off the treadmill. The screws will stay in place.

3. Disconnect the elevation motor cable.

- Cut the wire tie and disconnect the elevation motor cable from the cable connector plate.

4. Remove the elevation motor.

- Using a 9/16" open end wrench and a 9/16" socket wrench, remove the two bolts, nuts and spacers on the elevation motor (one at the top and one at the bottom). **NOTE:** *Hold the motor while removing the second bolt so that it doesn't fall.*
- Carefully lift and remove the elevation motor from the treadmill.

5. Calibrate the elevation motor.

- Slide the top bolt and spacer into the slots and attach the hex nut as shown in Figure 23. Connect the elevation motor to the lower board. Plug the unit into the outlet. Turn the power switch to ON (I). The elevation motor motor will automatically set to 0%.
- Turn the tube with fingers until it measures 10.25" (26 cm) from the center of the top hole to the center of the bottom hole. See Figure 23.

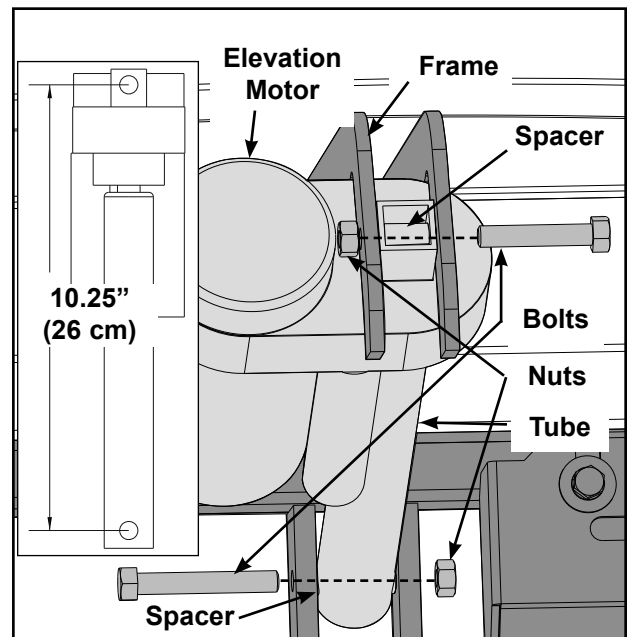


Figure 23

6. Secure the elevation motor.

- A. Slide both bolts and spacers into the slots and attached the hex nuts as shown in Figure 19. **NOTE:** *The top spacer is narrow and the bottom spacer is wider.*
- B. Slide the bottom bolt and spacer into the slots and attach the hex nut as shown in Figure 23.
- C. Connect the elevation motor cable to the cable connector plate.

7. Secure the motor cover.

- A. Lower the motor cover center into position. See Figure 3.
- B. Using a Phillips screwdriver, tighten the two screws on each side and the two screws in the front of the unit.



CAUTION: *Always use proper lifting methods when moving heavy items.*

- C. Carefully lower the treadmill to the floor.

8. Test the elevation motor.

- A. Connect the main power cord into the power outlet.
- B. Turn the Main power switch on the left side to the on (I) position.
- C. Start the treadmill in Manual Mode and raise the elevation to maximum.
- D. Lower the elevation to zero percent.
- E. Operate the unit at all levels to verify proper operation.

Upper Display Board

NOTE: *This procedure will cover the upper display board, display overlays, contact heart rate grips, e-stop switch and display cable.*

Tools Required

- Phillips screwdriver
- ESD (Electro Static Discharge) grounding strap

1. Disconnect the external power source.

- A. Turn the main power switch on the left side to the off position.
- B. Unplug the treadmill from the power outlet.

NOTE: *The display board is susceptible to damage from a discharge of static electricity. While handling parts underneath the console cover use an ESD grounding strap. This eliminates the potential voltage (static) difference between technician and equipment. Wear an ESD strap for the rest of this procedure.*

2. Remove the console assembly from the handrail.

- A. Using a Phillips screwdriver, remove the two screws securing the back cover to the console assembly. See Figure 24.
- B. Using a Phillips screwdriver, remove the two machine screws securing the console assembly to the upright assembly. See Figure 25. **NOTE:** Screws are different sizes. Make note of screw location during removal.
- C. Using a Phillips screwdriver remove the seven screws that hold the console assembly to the console back. See Figure 25.
- D. Gently tilt the console assembly forward and disconnect these cables from the display board: the display cable (2 connectors), the contact heart rate cable, the Polar cable and the ground wire. See Figure 26.

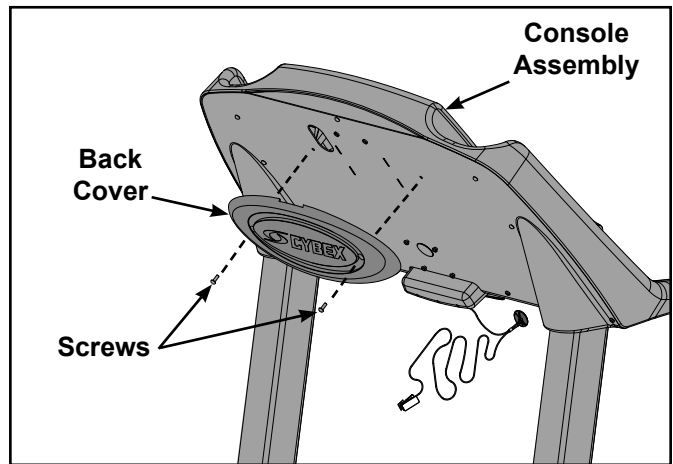


Figure 24

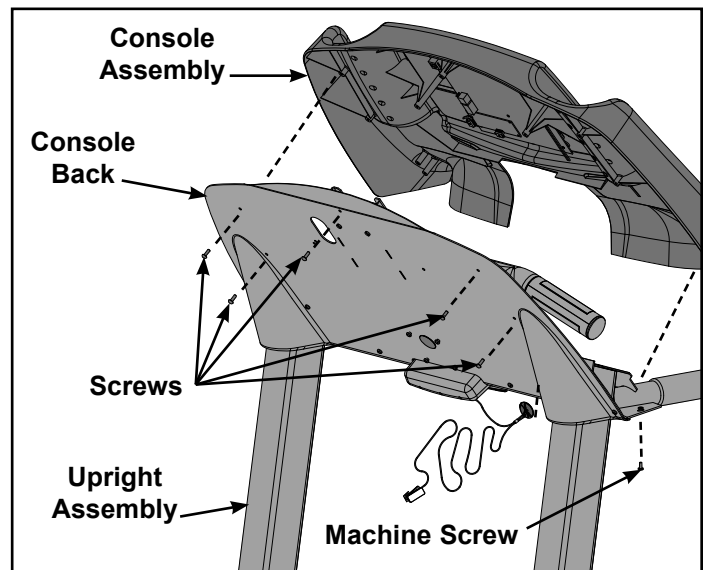


Figure 25

- E. Remove the console assembly.

3. Remove the display board.

- A. Using a Phillips screwdriver, remove the five screws that hold the display board to the console. See Figure 26.
- B. Gently flip the display board over and disconnect the upper switch membrane and the lower switch membrane.

NOTE: The calibration procedure will need to be completed after replacing the upper display board. Follow the Speed Calibration procedure located in this chapter.

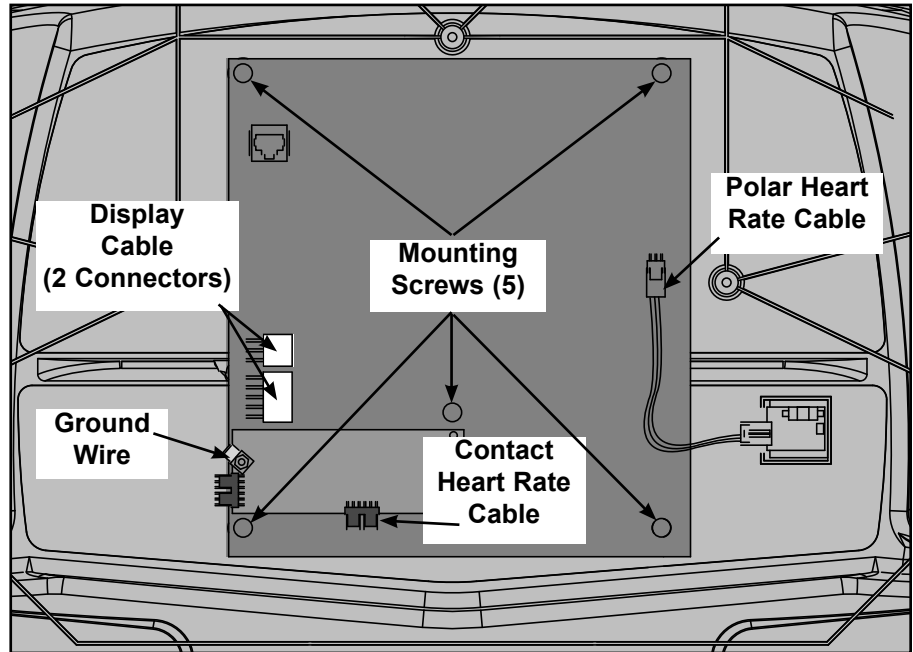


Figure 26

Display Overlays

Tools Required

- Phillips screwdriver
- ESD (Electro Static Discharge) grounding strap
- Razor blade

1. Remove the display overlay.

- A. Use a razor blade to peel up a corner of the display overlay and pull off the overlay.

2. Attach the display overlay.

- A. Remove the paper backing from the new display overlay.
- B. Slide the ribbon cable through the (upper two or lower one) slot.
- C. Carefully place the display overlay in position within the indentation on the console front and firmly rub the display overlay so that it adheres to the console.
- D. Connect the upper switch membrane and the lower switch membrane to the display board.

3. Attach the display board.

- A. Place the display board in position on the front console.
- B. Using a Phillips screwdriver, secure the five screws that hold the display board to the console.

Contact Heart Rate Grips

Tools Required

- Phillips screwdriver
- Knife or small flat head screwdriver
- Needle nose pliers
- Wire cutters

1. Remove the old heart rate grips and cable.

- Using a knife or flat head screwdriver, pry up the four metal contacts from the two grips. **NOTE:** The metal contacts are taped on securely and prying them up will destroy them.
- Using a needle nose pliers, carefully disconnect the wire from each metal contact.
- Using a Phillips screwdriver, remove the two bolts and two nuts from each grip.
- Pull the plastic housing and cap off each handrail (the housing is secured with double-sided tape). See Figure 27.
- Gently push each connector out of the rectangular hole in the plastic housing. See Figure 27.
- Remove any remaining double-sided tape from each handrail.
- Remove the old o-ring from each handrail. See Figure 27.
- Using wire cutters, cut the wire tie that holds the heart rate cable to the handrail.
- Pull the old heart rate cable out of the handrail.

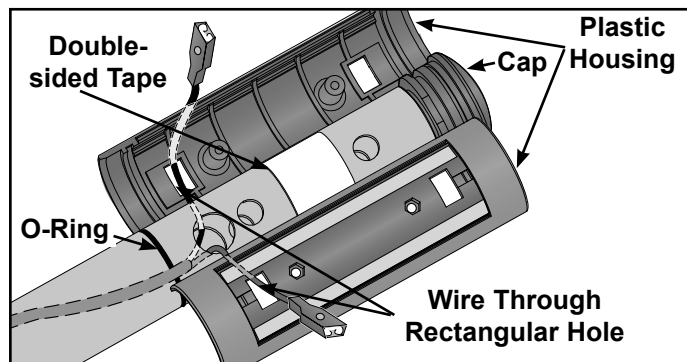


Figure 27

E-Stop switch

Tools Required

- Phillips screwdriver
- Wire cutters

1. Remove the console back plate.

- Using a Phillips screwdriver, remove the ten screws securing the console back from the upright assembly. See Figure 28. **NOTE:** Screws are different sizes. Make note of location of screws during removal.
- Using a Phillips screwdriver, remove the two screws that secure the console back in place. See Figure 29.

NOTE: Screws are different sizes. Make note of screw location when removing.

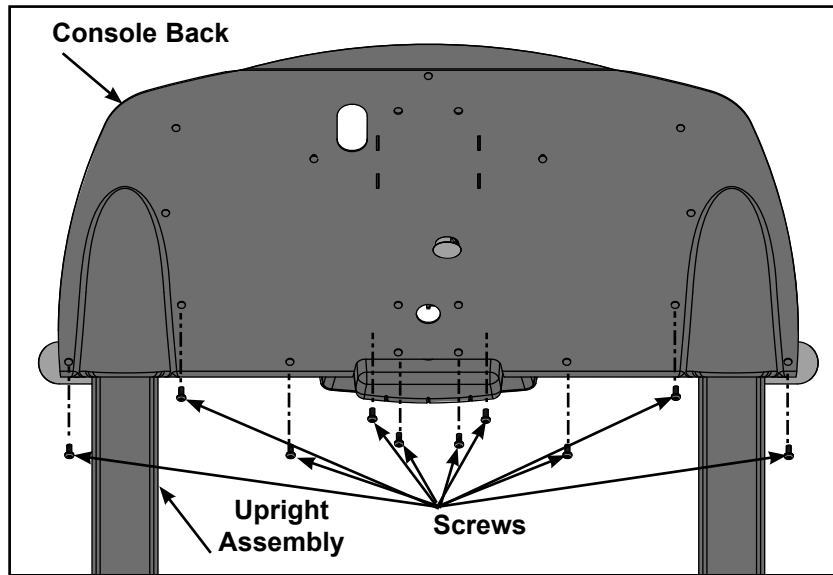


Figure 28

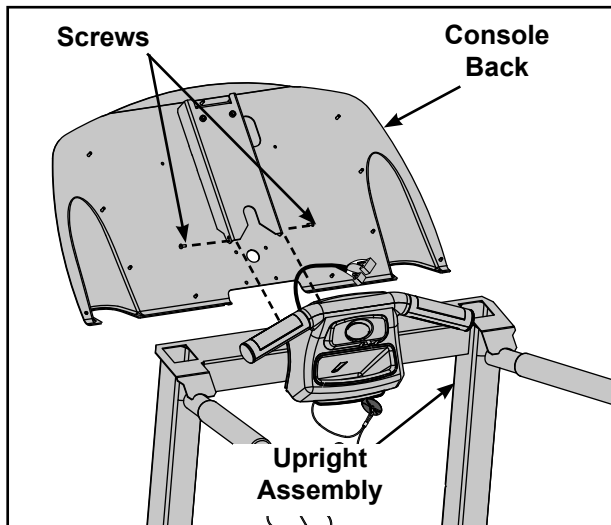


Figure 29

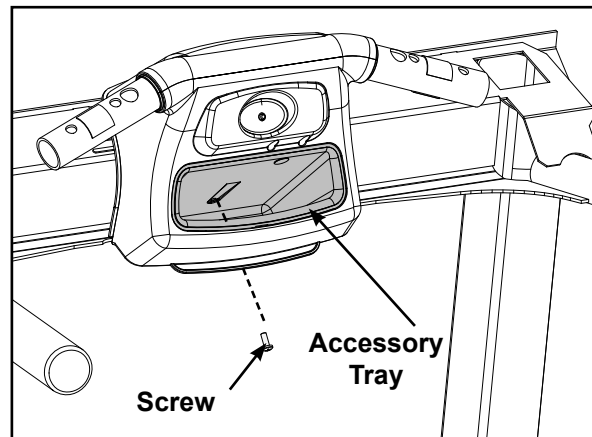


Figure 30

2. Remove the accessory tray.

- Using a Phillips screwdriver remove the screw securing the accessory tray to the lower handle cover. See Figure 30.

3. Remove the lower handle cover.

- A. Using a Phillips screwdriver, remove the two screws securing the lower handle cover to the upper handle cover. See Figure 31

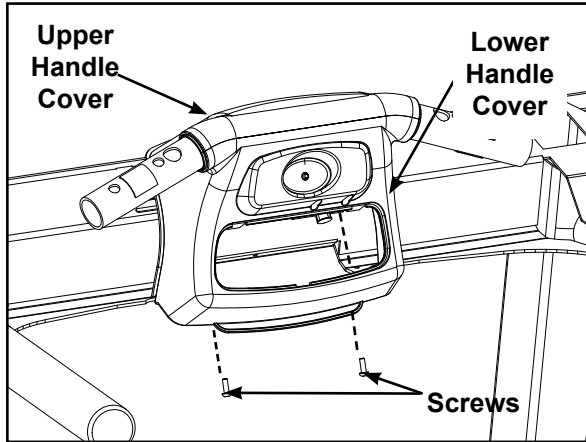


Figure 31

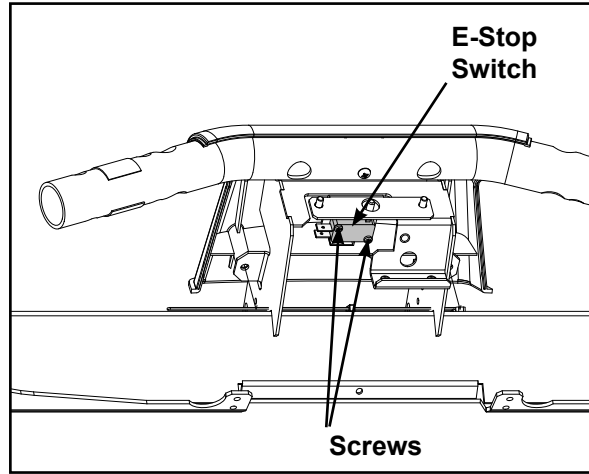


Figure 32

4. Remove the e-stop switch.

- A. Using a Phillips screwdriver, remove the two screws securing the e-stop switch. See Figure 32.

5. Install the e-stop switch.

- A. Using a Phillips screwdriver, install the two screws securing the e-stop switch. See Figure 32.

Display Cable

Tools Required

- Wire cutters

1. Remove the display cable.

- Disconnect the display cable from the connector plate in the base. See Figure 33.
- Using wire cutters, cut the wire ties on top of the handrail and the contact heart rate cable.
- Pull the display cable out of the handrail.

2. Attach the new display cable.

- Push the new display cable down through the handrail and out the handrail's bottom hole.
- Plug the display cable into the connector plate in the base. See Figure 33.
- Secure the display cable with wire ties to the handrail.

3. Install the lower handle cover.

- Using a Phillips screwdriver, install the two screws securing the lower handle cover to the upper handle cover. See Figure 31.

4. Install the accessory tray.

- Using a Phillips screwdriver install the screw securing the accessory tray to the lower handle cover. See Figure 30.

5. Install the console back plate.

- Using a Phillips screwdriver, install the ten screws securing the console back from the upright assembly. See Figure 28.
- Using a Phillips screwdriver, install the two screws that secure the console back in place. See Figure 29.

6. Connect the cables.

- Connect these cables into the display board: the display cable (2 connectors), the contact heart rate cable, the Polar cable and the ground wire. See Figure 26. (425T skip to Step 8.)

7. Install the Back Cover

- Using a Phillips screw driver, install the two screws securing the back cover to the console assembly. See Figure 26.

8. Check the connections.

- Check to see that all of the cables are connected firmly in their proper place.

9. Install the console back to the upright assembly.

- Locate the console back and twelve screws.

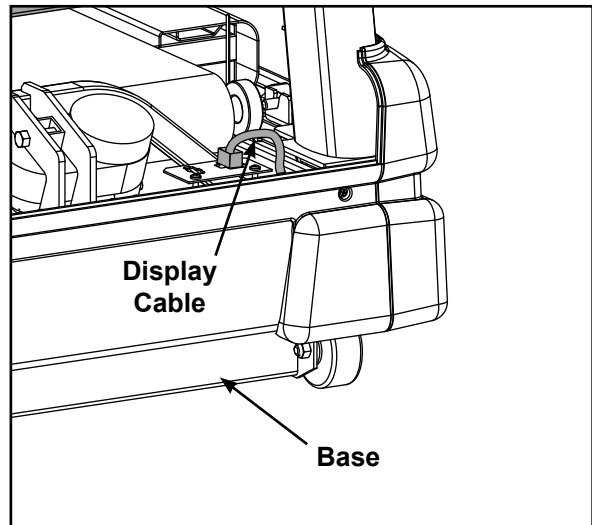


Figure 33

- B. Place the console back in the correct position on the upright assembly. See Figure 5.
- C. Using a Phillips screwdriver, install two screws to hold the console back in place. Do not fully tighten at this time. See Figure 29.
- D. Using a Phillips screwdriver, secure the console back to the upright assembly using ten screws. Fully tighten the two screws installed in step 9C. See Figure 28.

10. Route the new contact heart rate cable.

- A. Connect the contact heart rate connector into the bottom of the heart rate board. See Figure 26.
- B. Locate the short and long side of the heart rate cable.
- C. Route the short cable end to the left (from treadmill user's viewpoint) and the long end to the right.
- D. Fold each cable and place it into the hole that leadsto the grip. See Figure 34.
- E. Push each wire out a hole (red out the front hole and black out the back hole). See Figure 34.

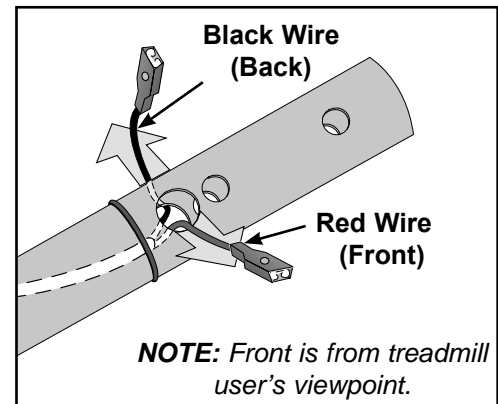


Figure 34

11. Secure the new plastic housing.

- A. Remove the protective paper from the loose pieces double-sided tape and stick each one between two small holes in the handrail. See Figure 35.
- B. Position each set of plastic housings so that the grooves fit together snugly. **NOTE:** If the grooves don't fit and the housing gets taped down in the wrong position pulling it up will destroy the tape. Do not let the plastic housing touch the double-sided tape until step 12E.
- C. Place each plastic grip near the handrail and pull each wire through a rectangular hole. See Figure 36. **NOTE:** Don't let the wires slip back into their holes.

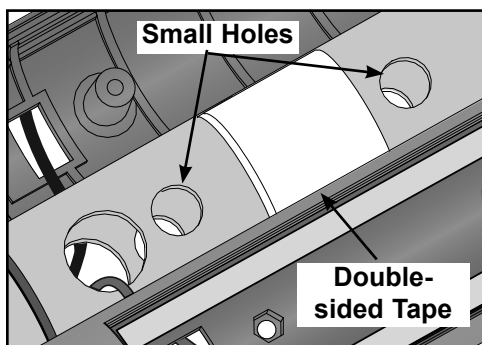


Figure 35

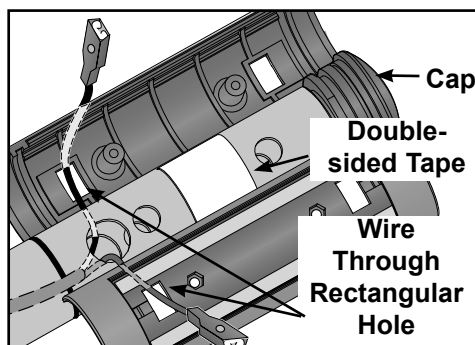


Figure 36

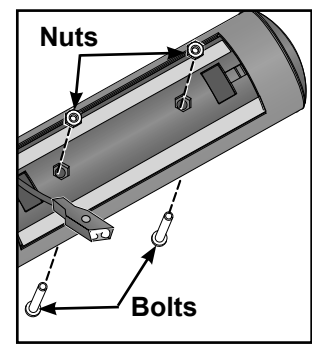


Figure 37

- D. Fit the three plastic parts in position (the housing (2) and the cap (1)) and continue holding all plastic parts through the next step. See Figure 36.
- E. While being careful not to overtighten and crack the housing, place the nuts in their holes and secure them with the bolts. **NOTE:** It is easier to place the nuts on the top and the bolts from the bottom. See Figure 37.

12. Secure the new metal contacts.

- A. Remove the protective paper from the four metal contacts and from the eight strips of tape on the plastic housing.
- B. Locate the small bump on the metal contact prong and on the connectors. See Figure 38.
- C. Connect the each cable to a metal prong with the bumps lined up. See Figure 38.
- D. Push the excess wire into its rectangular hole.
- E. Press each metal contact into the grooves (one groove at a time) on the plastic housing. **NOTE:** *They will snap in.*

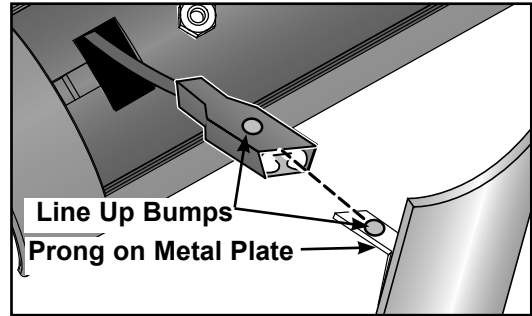


Figure 38

13. Secure the motor cover.

- A. Lower the motor cover center into position. See Figure 3.
- B. Using a Phillips screwdriver, tighten the two screws on each side and the two screws in the front of the unit.

14. Connect the external power source.

- A. Plug the treadmill into the power outlet.
- B. Turn the main power switch on the left side to the on (I) position.

15. Calibrate speed (if display board replaced).

- A. Follow the *Speed Calibration* procedure located in this chapter.

16. Test the unit for proper operation.

- A. Operate the unit at all levels to verify proper operation.

Extension Handrails – Optional

Tools Required

- Razor blade or knife
- 1/4" Hex key (supplied)
- Mild dish soap and water solution
- Clean cloth

NOTE: “Right” and “left” are from user’s orientation.

1. Please read instructions thoroughly before beginning.

2. Verify the appropriate kit and contents.

See Figure 39. NOTE: This instruction describes assembly of both the extension handrails. If installing only one of the two handrails then follow the instructions for only the side replacing.

Included in Kit CK-19962

- A. Handrail assembly left, AX-19735 (1)
- B. Handrail assembly right, AX-19758 (1)
- C. Bolt, HS-18127 (4)
- D. Washer, Lock, Split 1/4", HW-00180 (4)
- E. 1/4" Hex key, HX-17117 (2)

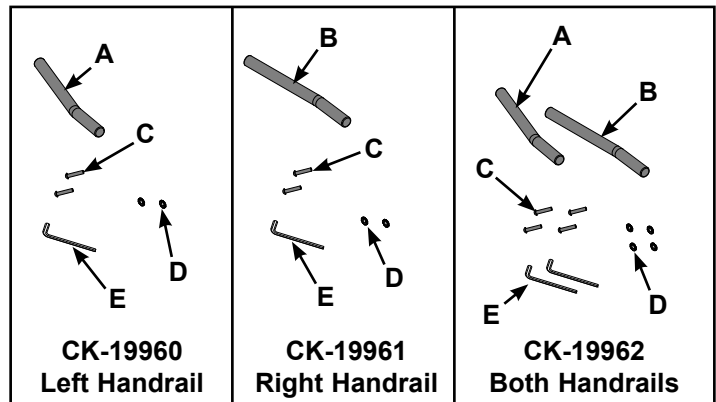


Figure 39

3. Remove the hand grip from the treadmill.

- A. Using a razor blade, carefully slit each hand grip that is on the treadmill. See Figure 40.
- B. Carefully pull back each grip until it comes off the treadmill.

4. Install the handrail extensions.

- A. Remove the handrail assemblies from the wrapping and cardboard.

IMPORTANT: Carefully follow steps 4B and 4C. Failure to do so could result in ripping the handrail

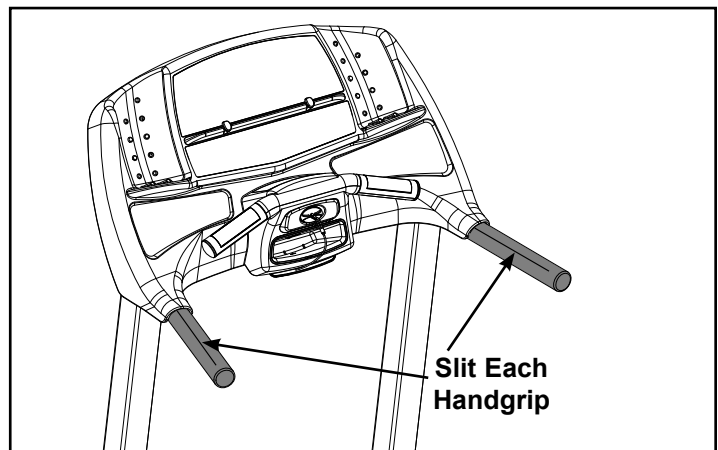


Figure 40

- B. Dampen a clean cloth in a mild soapy water solution and spread it on each console handrail. Feel the handrail to be sure it is slippery. See Figure 41.

- C. While the console handrail is still wet and slippery, push each handrail extension on the console handrail. See Figure 41. **NOTE:** Push until hearing metal touching metal inside the grips and the grip holes line up with the holes in the handrail.
- D. Using the 1/4" Hex key (E), install and tighten both bolts (C) and washers (D) per handrail. See Figure 42.
- E. Test unit for proper operation and to ensure handrails are secure.

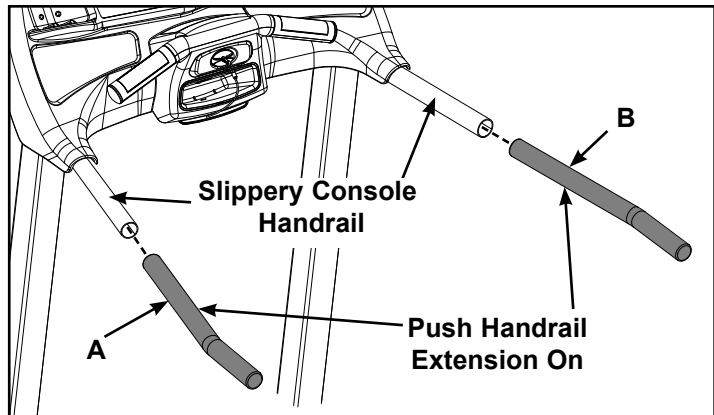


Figure 41

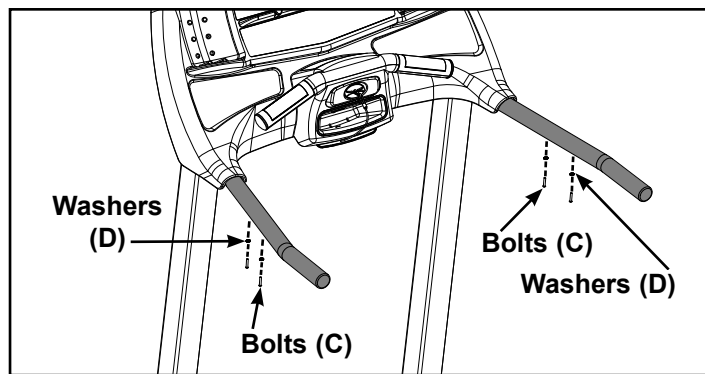


Figure 42

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

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

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

Serial Number and Voltage

Your serial number and voltage can be found on the rear of your treadmill. See Figure 1. For your convenience, record your serial number and voltage below so that you will have it ready if you call Cybex Customer Service.

Serial Number _____ Voltage _____

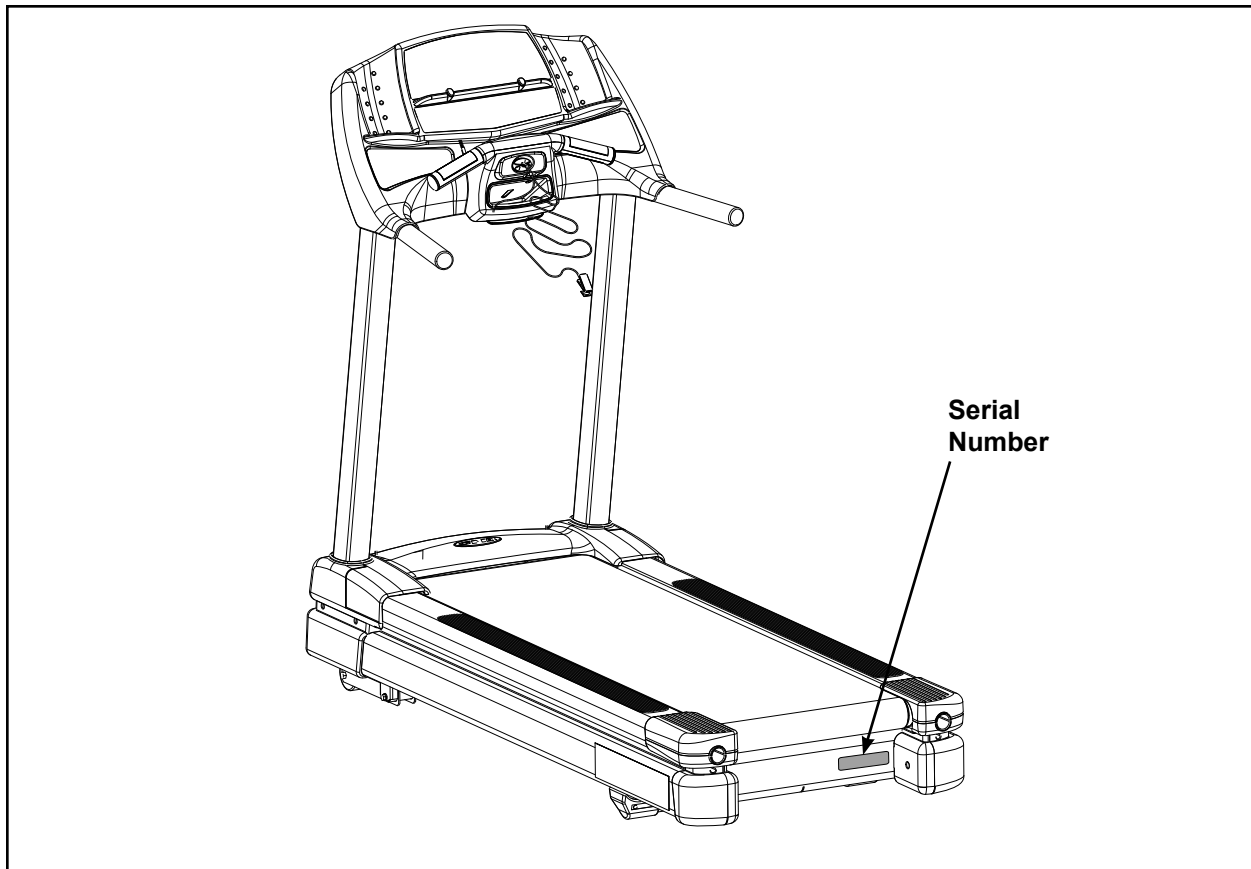


Figure 1

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 above 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 of your treadmill. The serial number is located on the front panel of your treadmill. 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 treadmill 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.,
10 Trotter Drive
Medway, MA 02053

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

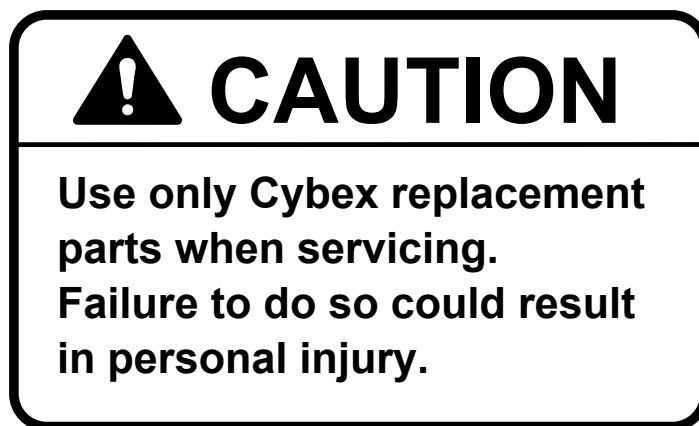
Materials damaged in shipment should not be returned for credit. Shipping damages are the responsibility of the carrier (UPS, Federal Express, trucking companies, etc.)

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 your order 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).



Cybex will void warranty if non-Cybex replacement parts are used.

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Parts List - 425T

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	AF-18899	Weldment, Console Back Plate
2	1	AL-18596	Front Roller, 2.75 O.D.
3	1	AL-18597	Rear Roller, 2.75 O.D.
6	1	SK-17827	Assembly, Contact Grip, Pair
7	1	AF-18394	Weldment, Elevation
8	1	AX-18729	Assembly, Idler
9	1	AX-20944	Assembly, E-Stop Lanyard
10	1	AX-19239	Assembly, Motor Cover
11	1	BD-18763	Belt, Running
12	1	BD-18917	Belt, Poly-V,320J8
15	2	DE-19360	Decal, Side Labels, Black
15	2	DE-19353	Decal, Side Labels, Silver
17	1	DK-18401	Deck, Running
18	1	KAX-21507	Sensor, Speed
19	1	EH-00986	Wire Tie, 9"
20	1	EH-10291	Base, Wire Tie
21	1	FM-18405	Shaft, Elevation
22	4	FS-16511	Plate, Rear Rubber Foot Mounting
23	1	FS-19213	Cable, Connector Plate, 425T
24	1	FT-16825	Sleeve, Elevation Mounting, Top
25	1	FT-16826	Sleeve, Elevation Mounting, Bottom
26	2	HB-16367	Bushing, .50 I.D. x .62 O.D. x .31 LG, Flanged
27	2	HN-10029	Nut, 1/2 - 13 HEX STL ZINC
28	2	HN-17935	Nut Locking, 3/8 - 24, GRD C, STL, ZN
29	2	HS-00156	Screw, 4-40 x .62, PNHD PHIL
30	2	HS-00261	Bolt, 1/2 - 13 x 5.5, HXHD
31	10	HS-15706	Screw, 8-16 x .50, PNHD, STL, BLK ZN CLR, TYP WB
32	10	HS-16509	Screw, SLFTP, 10 x .5, PNHD, PLT, TYP B, PT-S
33	10	HS-16628	Bolt, 1/4 - 20 x 1.5, HXHD, G8
34	6	HS-16929	Bolt, Whiz Lock, 3/8 - 16 x .625, HXHD, G5
35	8	HS-16939	Screw, SEMS,10/32 x .75, PNHD, BLK ZN, EXT
36	1	HS-17936	Bolt, 3/8 - 24 x 2.0, HXHD CAP, G8, YEL ZN
37	1	HS-17937	Bolt, 3/8 - 24 x 2.75, HXHD CAP, G8, YEL ZN
38	4	HS-19108	Screw 5/16-18 x 3/4, HXHD, Whiz-Lock
39	1	HS-41006	Screw, SLFTP, 10/24 x 1.38, PNHD PHIL, SST, BLK, TT
40	2	HS-41107	Bolt, 5/16 - 18 x 1.5, BTHD, SST, BLK
41	2	HW-00165	Washer, Split Lock, 5/16, ZINC
42	8	HW-00180	Washer, Split Lock, 1/4, SST, BLK
43	2	HW-00590	Bushing, Nylon, 1/2
44	12	HW-18123	Washer, .344 I.D. x .75 O.D. x .125 Thick, Black Zinc
45	2	HX-13771	Ring, Retaining, 5/8 x .579 FR. I.D.
46	2	HX-19981	Bushing, Deck, 5/16 - 18
47	1	HX-20799	Plug, Plastic, 9/16", BLACK
48	4	HX-17788	Tape, Double Sided, .032 Thick
49	1	HX-19529	E-Ring, Retaining, 5555-37
50	2	HX-18901	Grips, 425 Upright Handrail
51	1	HX-19052	Idler Spring
52	2	HX-19102	Rubber Foot, Rear
53	1	HX-19384	Coupling, Shaft, DBL Split 5/8
56	1	PL-18773	Plunger, E-Stop
57	1	PL-18929	Cover, Rear, Outer Right
58	1	PL-18930	Cover, Rear, Inner Right
59	1	PL-18932	Cover, Rear, Outer Left
60	1	PL-18933	Cover, Rear, Inner Left
61	1	PL-18990	Cover, Motor, Front, 425T
62	1	PL-18991	Cover, Motor, Right, 425T
63	1	PL-18992	Cover, Motor Left,425T
64	1	PL-19061	Cover, Console, Back Trim, 425T
65	1	PL-19093	Cover, Handle Lower
66	1	PL-19094	Accessory Tray, 425T Console
68	1	SW-18535	Switch, Limit
70	8	HS-11977	Screw, SEMS, 8/32 x .38, PNHD
73	2	HX-22247	Busing, Spanner,.500 OD X 1.5"L
74	2	CW-22240	Wheel, 80mm Dia X 32mm

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ITEM NO.	QTY.	PART NO.	DESCRIPTION
75	4	HB-18768	Bearing, LF-1011-12
76	2	HS-60022	Bolt, 3/8 x 2.25, HXHD CAP, Black Zinc, G5
77	2	HN-60064	Nut, Jam 3/8 - 16, Black Zinc
78	1	AF-18481	Weldment, Motor Base
79	1	AF-18769	Bracket, Heat Sink
80	2	HB-18768	Bearing, LF-1011-12
81	1	AD-18213	PCA, Control Board, 115 VAC
81	1	AD-18217	PCA, Control Board, 230 VAC
82	2	EC-18538	Circuit Breaker, 15 Amp, 115 VAC
82	2	EC-18539	Circuit Breaker, 10 Amp, 250 VAC
83	1	EC-18896	Filter, 16 Amp
84	4	HN-11136	KEPS, 5/16 - 18, HEX STL ZINC
86	8	EH-00986	Wire Tie, Nylon, 9
87	2	HN-11925	KEPS, 10-32, HEX STL ZN
88	1	HW-10856	Washer, Lock External, No. 10 ZC
89	2	HS-15732	Screw, SEMS, 8-32 UNC x .62, PNHD PHIL, ZN
90	1	EH-12260	Wire Tie, Nylon, 18
91	1	FS-19355	Plate, Circuit Breaker Mount
92	1	DE-16928	Label, Disconnect Power, Multilingual
93	1	DE-19238	Decal, Warning, Motor Plate
94	1	DE-19198	Decal, Cybex
95	1	AF-18728	Bracket, Idler
96	1	HB-19135	Idler Wheel, 1.88 x 1.0
97	2	HB-18056	Bushing, Flange, .375 x .469 x .25
98	1	HS-19338	Screw, 3/8 - 16 x 1.75, SCHD BTN, BLK, ZN
102	1	MR-18402	Motor, Elevation, 115 VAC
102	1	MR-18403	Motor, Elevation, 230 VAC
103	1	MR-19643	Motor, Drive, 115 VAC
103	1	AX-19650	Motor, Drive, 230 VAC
104	1	DE-20685	Decal, E-stop, Yellow
120	1	EH-19416	Heat Sink, Silpad
121	1	EC-15004	Ferrite, Clamp-on, .40 I.D.
200	1	SCK-18765	Assembly, Top Platform, Right
201	1	SCK-18764	Assembly, Top Platform, Left
202	1	SCK-18486	Weldment, Upright
203	1	AF-18461	Weldment, Frame, 425T
204	1	DE-18766	Decal, Safety Walk
205	8	HS-18311	Screw, 8-16 x .75", PNHD, STL, BLK ZN CLR, TYP WB
206	1	PL-18931	Cover, Rear, Top Left
207	1	PL-19120	Cover, Rear, Bottom Left
208	1	PL-18928	Cover, Rear, Top Right
209	1	PL-19118	Cover, Rear, Bottom Right
210	1	DE-19441	Decal, 425T, Black
210	1	DE-19442	Decal, 425T, Silver 877
211	1	HX-18287	Plug, Hole, Plastic, 1", Black
220	1	FM-19513	Shaft, Deck Pivot
221	2	AX-20035	Assembly, Deck Pivot Bracket
222	2	DE-22327	LABEL, BLACK, INTELLIGENT SUSPENSION 3
223	2	DE-22328	LABEL, SILVER, INTELLIGENT SUSPENSION 3
300	1	AX-18545-X*	Assembly, 425T Console*
301	1	AX-19356-X*	Assembly, Cover, Top CHR*
304	1	AD-21467	PCA, Display, 425T
305	1	AF-19187	Bracket, Console Anchor, Right
306	1	AF-19188	Bracket, Console Anchor, Left
308	1	DE-18556-X*	Decal, Warning, Right*
309	1	DE-18557-X*	Decal, Warning, Left*
310	1	EC-19236	Sensor, Polar Wireless Remote Mount
312	7	HS-41187	Screw, SLFTP, 8-16 x .3125, Plastite
313	1	HX-17788	Tape, Double Sided, .032 Thick
314	2	PL-17686	Tab, Book Holder
315	1	PL-18548	Console, Plastic, 425T
316	1	SW-21456-X*	Membrane, 425T, Top*
317	1	SW-21457-X*	Membrane, 425T, Bottom*
317	1	SW-21458-X*	Membrane, 425T, Bottom, A/V*
318	1	DE-19189-X*	Label, Warning*
410	1	AX-19735	Assembly, extended handrail, Left, 425T 445T
411	1	AX-19758	Assembly, extended handrail, Right, 425T 445T

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ITEM NO.	QTY.	PART NO.	DESCRIPTION
413	4	HS-18127	Bolt, 1/4-20 x 1.25",BHCS,SS,Black
410	1	AX-19735	Assembly, extended handrail, Left, 425T 445T
411	1	AX-19758	Assembly, extended handrail, Right, 425T 445T
413	4	HS-18127	Bolt, 1/4-20 x 1.25",BHCS,SS,Black
500	1	AF-19876	Bracket,Upper mount
501	1	AF-21142	Weldment,PEM Mount,2nd Gen
502	1	AW-17694	Cable,Audio 1/4 in to 3.5mm,18 in
503	1	AW-21680	Cable,Locking RF & DC Power Cable,2795mm
504	1	AW-20111	Cable,5E Bonded pair RJ45 Round
505	1	CN-17687	Adapter,1/4" Plug to 1/8" Jack
506	1	CP-21072	Monitor,13.3" ATSC NTSC PEM
506	1	CP-21073	Monitor,13.3" DVB-T SECAM PAL PEM
507	1	FS-17698	Clamp, Headphone adapter
509	2	HS-16939	Screw SEMS,10-32X.75,PNHD,BLK ZN,EXT
510	2	HS-19369	Screw 1/4-20 x 2.25",PNHD PHIL,BLK ZN
512	2	HX-12244	Spring compression brush
513	2	HX-19976	Busing,Stud plate,8-32,6lb Max shear,18LB Max comp.
514	1	HX-20032	Insert, domed plastic
515	4	HX-20220	Plug, hole .187" DIA,Black
523	1	TR-21265	Power supply,12VDC,120-240VAC,6.0A W-Locking plug
524	1	AW-14007	Power cord,115V,60HZ PWR SUPPLY IEC320 (SJT
524	1	WR-14012	Power cord,230V,10A,CEE 7-7,2M
524	1	AW-20192	Power cord,100V,50HZ,2.5M IEC-320,Japan
524	1	AW-20193	Power cord,250VAC 10A,2.5M IEC-320,UK
524	1	AW-22229	Power cord,10A,250V IEC 60320 Molded, Danish
NS	1	AF-19068	Bracket, Power Factor
NS	1	AF-19494	Bracket, E-Stop, Micro switch mount
NS	1	AW-19117	Cable, A/V Option
NS	1	AW-18216-Q	Cable, Harness, Console
NS	1	AW-18256	Cable, Polar Jumper
NS	1	AW-18528-Q	Cable, Harness, Frame
NS	1	AW-18530	Cable, Filter to Board, Hot, Black
NS	1	AW-18531	Cable, Filter to Board, Neutral, White
NS	1	AW-18532	Power Cord, 115 VAC
NS	1	AW-18533	Power Cord, 230 VAC
NS	1	AW-18534	Power Cord, 230 VAC, 50 Hz
NS	1	AW-19525	Power Cord, 230 VAC, UK
NS	1	AW-18540	Cable, Circuit Breaker to Filter, Hot, Black
NS	1	AW-18541	Cable, Circuit Breaker to Filter, Neutral, White
NS	1	AW-18574	Cable, Speed Signal
NS	1	AW-18972	Cable, Elevation Motor
NS	1	AW-19221-Q	Cable, Contact Heart Rate Grip and Ground
NS	1	AW-19235	Cable, Control Board, Ground
NS	1	AX-19193	Controller Mount
NS	1	AX-19354	Kit, Install Hardware
NS	1	DE-18413	Decal, ETL
NS	1	CN-17687	Adapter, 1/4 Plug to 1/8 Jack
NS	2	EH-10291	Wire Tie, Base
NS	1	EH-19220	Jacket, Corrugated Tubing, 27 Long
NS	1	FS-17698	Clamp, Headphone Adapter
NS	1	FS-19190	Controller Mount
NS	1	FS-18771	Cover, Lower, Motor Controller
NS	1	HX-19059	Plug, Tube End, 1.5 O.D.
NS	1	LT-03051	Sign Facility Safety
NS	1	LT-19339	Warranty Sheet, 425T, Commercial
NS	1	LT-19453	Warranty Sheet, 425T, Consumer
NS	1	LT-19340	Poster, Installation
NS	1	LT-19431-X*	Owner's Manual, 425T
NS	1	SK-18553	Kit Brush, McMillan 3.0HP 110V
NS	1	SK-18554	Kit Brush, McMillan 3.0HP 220V
NS	1	TR-19201	Choke

NOTE: NS = Not Shown

*Language Key

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

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Parts List - 445T

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	AF-18899	Weldment, Console Back Plate
2	1	AL-18945	Front Roller, 3.0" O.D.
3	1	AL-18946	Rear Roller, 3.0" O.D.
6	1	SK-17827	Assembly, Contact Grip, Pair
7	1	AF-18394	Weldment, Elevation
8	1	AX-18729	Assembly, Idler
9	1	AX-20944	Assembly, E-Stop, Lanyard
10	1	AX-19239	Assembly, Motor Cover
11	1	BD-19642	Belt, Running
11	1	BD-20508	Belt, Running, IFI
12	1	BD-18917	Belt, Poly-V, 320J8
15	2	DE-19360	Decal, Side Labels, "Cybox", Black
15	2	DE-19353	Decal, Side Labels, "Cybox", Silver
17	1	DK-19641	Deck, Running
17	1	DK-20498	Deck, Running, IFI, Yellow
18	1	AX-21500	Sensor, Speed
19	1	EH-00986	Wire Tie, 9"
20	1	EH-10291	Base, Wire Tie
21	1	FM-18405	Shaft, Elevation
22	4	FS-16511	Plate, Rear Rubber Foot Mounting
23	1	FS-19731	Plate, Cable Connector, 445T
24	1	FT-16825	Sleeve, Elevation Mounting, Top
25	1	FT-16826	Sleeve, Elevation Mounting, Bottom
26	2	HB-16367	Bushing, .50 I.D. x .62 O.D. x .31 LG, Flanged
27	2	HN-10029	Nut, 1/2 - 13 HEX STL ZINC
28	2	HN-17935	Nut Locking, 3/8 - 24, GRD C, STL, ZN
29	2	HS-00156	Screw, 4-40 x .62, PNHD PHIL
30	2	HS-00261	Bolt, 1/2 - 13 x 5.5, HXHD
31	6	HS-15706	Screw, 8-16 x .50, PNHD, STL, BLK ZN CLR, TYP WB
32	10	HS-16509	Screw, SLFTP, 10 x .5, PNHD, PLT, TYP B, PT-S
33	10	HS-16628	Bolt, 1/4 - 20 x 1.5, HXHD, G8
34	6	HS-16929	Bolt, Whiz Lock, 3/8 - 16 x .625, HXHD, G5
35	8	HS-16939	Screw, SEMS, 10/32 x .75, PNHD, BLK ZN, EXT
36	1	HS-17936	Bolt, 3/8 - 24 x 2.0, HXHD CAP, G8, YEL ZN
37	1	HS-17937	Bolt, 3/8 - 24 x 2.75, HXHD CAP, G8, YEL ZN
38	4	HS-19108	Screw 5/16-18 x 3/4, HXHD, Whiz-Lock
39	1	HS-41006	Screw, SLFTP, 10/24 x 1.38, PNHD PHIL, SST, BLK, TT
40	2	HS-41107	Bolt, 5/16 - 18 x 1.5, BTHD, SST, BLK
41	2	HW-00165	Washer, Split Lock, 5/16, ZINC
42	8	HW-00180	Washer, Split Lock, 1/4, SST, BLK
43	2	HW-00590	Bushing, Nylon, 1/2
44	12	HW-18123	Washer, .344 I.D. x .75 O.D. x .125 Thick, Black Zinc
45	6	HX-13771	Ring, Retaining, 5/8 x .579 FR. I.D.
46	2	HX-19991	Bushing, Spring, Deck
47	1	HX-20799	Plug, Plastic, 9/16", BLACK
48	4	HX-17788	Tape, Double Sided, .032 Thick
49	2	HX-19529	Grip Ring, Retainer, 3/8"
50	2	HX-18901	Grips, 445T Upright Handrail
51	1	HX-19052	Idler Spring
52	2	HX-19102	Rubber Foot, Rear
53	1	HX-19384	Coupling, Shaft, DBL Split 5/8
56	1	PL-18773	Plunger, E-Stop
57	1	PL-18929	Cover, Rear, Outer Right
58	1	PL-18930	Cover, Rear, Inner Right
59	1	PL-18932	Cover, Rear, Outer Left
60	1	PL-18933	Cover, Rear, Inner Left
61	1	PL-18990	Cover, Motor, Front, 445T
62	1	PL-18991	Cover, Motor, Right, 445T
63	1	PL-18992	Cover, Motor Left, 445T
64	1	PL-19061	Cover, Console, Back Trim, 445T
65	1	PL-19093	Cover, Handle Lower
66	1	PL-19094	Accessory Tray, 445T Console
68	1	SW-18535	Switch, Limit

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ITEM NO.	QTY.	PART NO.	DESCRIPTION
70	9	HS-11977	Screw, SEMS, 8/32 x .38, PNHD
74	2	CW-22240	Wheel, 80mm Dia. x 32mm
75	4	HB-18768	Bearing, LF-1011-12
76	2	HS-60022	Bolt, 3/8 x 2.25, HXHD CAP, Black Zinc, G5
77	2	HN-60064	Nut, Jam 3/8 - 16, Black Zinc
78	1	AF-18481	Weldment, Motor Base
79	2	HX-22247	Bushing, Spanner, .500 OD x 1.5"L
80	2	HB-18768	Bearing, LF-1011-12
81	1	AD-19085-Q	PCA, Control Board, 115 VAC, 445T
81	1	AD-19086-Q	PCA, Control Board, 230 VAC, 445T
82	1	SW-19666	Switch, Rocker, Thermal CB, 15 A
82	1	SW-19667	Switch, Rocker, Thermal CB, 20 A
83	1	EC-18896	Filter, 16 Amp
83	1	EC-19869	Filter, 20 Amp
84	4	HN-11136	KEPS, 5/16 - 18, HEX STL ZINC
86	8	EH-00986	Wire Tie, Nylon, 9
87	2	HN-11925	KEPS, 10-32, HEX STL ZN
88	1	HW-10856	Washer, Lock External, No. 10 ZC
90	1	EH-12260	Wire Tie, Nylon, 18
91	1	FS-19668	Plate, Circuit Breaker Mount
92	1	DE-20427	Label, Disconnect Power, Multilingual
93	1	DE-19238	Decal, Warning, Motor Plate
94	1	DE-19198	Decal, Cybox
95	1	AF-18728	Bracket, Idler
96	1	HB-19135	Idler Wheel, 1.88 x 1.0
97	2	HB-18056	Bushing, Flange, .375 x .469 x .25
98	1	HS-19338	Screw, 3/8 - 16 x 1.75, SCHD BTN, BLK, ZN
99	1	DE-19730-X*	Decal, IR Comp Adjust
100	1	HX-17711	Plug, Plastec, 7/16", Black
101	1	AF-19068	Bracket, Power Factor, Choke
102	1	MR-18402	Motor, Elevation, 115 VAC
102	1	MR-18403	Motor, Elevation, 230 VAC
103	1	AX-19649	Motor, Drive, 110 VAC
103	1	AX-19560	Motor, Drive, 220 VAC
104	1	DE-20685	Decal, E-STOP, Yellow
121	1	EC-15004	Ferrite, Clamp-on, .40 I.D.
122	1	TR-19201	Choke
123	2	HX-19857	Strip, Motor Base, Isolation
124	1	EH-19717	Bushing, Strain Relief, .370"
125	2	HS-18358	Bolt, 5-16-18 x 1.25", SCHD CAP, BLK ZN
126	2	HW-20044	Washer, Belleville, 15 x 8.2 x 1.0mm, .5mm THK
127	2	HN-20041	Nut, 1/4-20 Propeller .305" OD
200	1	SCK-18765	Assembly, Top Platform, Right
201	1	SCK-18764	Assembly, Top Platform, Left
202	1	SCK-18486	Weldment, Upright
203	1	AF-20559	Weldment, Frame, 445T
204	2	DE-18766	Decal, Safety Walk
204	2	DE-20718	Decal, Safety Walk, IFI
206	1	PL-18931	Cover, Rear, Top Left
207	1	PL-19120	Cover, Rear, Bottom Left
208	1	PL-18928	Cover, Rear, Top Right
209	1	PL-19118	Cover, Rear, Bottom Right
210	1	DE-19726	Decal, "CX 445T", Black
210	1	DE-19727	Decal, "CX 445T", Silver 877
211	1	HX-18287	Plug, Hole, Plastic, 1", Black
220	1	FM-19513	Shaft, Deck Pivot, 445T
221	2	AX-20035	Assembly, Deck Pivot Bracket
222	1	HB-18768	Bearing, IGUS LF-1011-12
223	2	DE-22327	Label, Black, Intelligent Suspension 3
224	2	DE-22328	Label, Silver, Intelligent Suspension 3
225	2	PL-22129	Bracket, Power cord storage, Plastic
226	2	HS-22137	Bolt, 1/4-14 x 1.25", HXHD Washer, TYP AB, STL ZN
300	1	KAC-20641-X*	Assembly, 445T Console
301	1	AX-19356-X*	Assembly, Cover, Top CHR
304	1	AD-21468-Q	PCA, Display, 445T
305	1	AF-19187	Bracket, Console Anchor, Right
306	1	AF-19188	Bracket, Console Anchor, Left

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ITEM NO.	QTY.	PART NO.	DESCRIPTION
308	1	DE-18556-X*	Decal, Warning, Right
309	1	DE-18557-X*	Decal, Warning, Left
310	1	EC-19236	Sensor, Polar Wireless Remote Mount
312	7	HS-41187	Screw, SLFTP, 8-16 x .3125, Plastite
313	1	HX-17788	Tape, Double Sided, .032 Thick
314	2	PL-17686	Tab, Book Holder
315	1	PL-18548	Console, Plastic, 445T
316	1	SW-21456-X*	Membrane, 445T, Top
316	1	SW-20701-X*	Membrane, 445T, Top, IFI
317	1	SW-21457-X*	Membrane, 445T, Bottom
317	1	SW-20700-X*	Membrane, 445T, Bottom, IFI
317	1	SW-21458-4	Membrane, 445T, Bottom, With A/V, English only
318	1	DE-19189-X*	Label, Warning
410	1	CK-19960	Extended Handrail, Left
411	1	CK-19961	Extended Handrail, Right
413	4	HS-18127	Bolt, 1/4 - 20 x 1.25"
414	1	CK-19962	Extended Handrail, Left and Right, 445T
500	1	AF-19876	Bracket, Upper mount
501	1	AF-21142	Weldment, PEM Mount, 2nd Gen
502	1	AW-17694	Cable, Audio 1/4 in to 3.5mm, 18 in
503	1	AW-21680	Cable, Locking RF & DC Power Cable, 2795mm
504	1	AW-20111	Cable, 5E Bonded pair RJ45 Round
505	1	CN-17687	Adapter, 1/4 Plug to 1/8 Jack
506	1	CP-21072	Monitor, 13.3" ATSC NTSC PEM
506	1	CP-21073	Monitor, 13.3" DVB-T SECAM PAL PEM
507	1	FS-17698	Clamp, Headphone Adapter
510	2	HS-19369	Screw, 1/4 - 20 x 1.25, PNHD PHIL, Black Zinc
512	1	HX-12244	Spring Compression Brush
513	1	HX-19976	Bushing, Stud Plate, 8-32, 6lb. MAX SHEAR, 18lb. Max Comp.
514	1	HX-20032	Insert, Domed Plastic
515	1	HX-20220	Plug, Hole, .187" Dia, Black
523	1	TR-21265	Power Supply, 12VDC, 120-240VAC, 6.0A W-LOCKING PL
524	1	AW-14007	Power Cord, 115VAC, 60hz Power Supply IEC320 (SJT)
524	1	WR-14012	Power Cord, 230VAC, 10A, CEE 7-7, 2M
524	1	AM-20192	Power Cord, 100VAC, 50hz, 2.5M IEC-320, Japan
524	1	AW-20193	Power Cord, 250VAC 10A, 2.5M IEC-320, UK
524	1	AW-22229	Power Cord, 10A, 250VAC IEC 60320 Molded Danish
NS	1	AF-19068	Bracket, Power Factor
NS	1	AW-19117	Cable, A/V Option
NS	1	AW-19679	Cable, Harness, Console
NS	1	AW-18256	Cable, Polar Jumper
NS	1	AW-19678	Cable, Harness, Frame
NS	1	AW-18530	Cable, Filter to Board, Hot, Black
NS	1	AW-18531	Cable, Filter to Board, Neutral, White
NS	1	AW-19714	Power Cord, 115 VAC, 60 Hz
NS	1	AW-19715	Power Cord, 220 VAC, 60 Hz
NS	1	AW-19716	Power Cord, 230 VAC, 50 Hz
NS	1	AW-19878	Power Cord, 230 VAC, 13A, 50 Hz
NS	1	AW-22234	Power Cord, 230 VAC, 10A, 50 Hz
NS	1	AW-18540	Cable, Circuit Breaker to Filter, Hot, Black
NS	1	AW-18541	Cable, Circuit Breaker to Filter, Neutral, White
NS	1	AW-18574	Cable, Speed Signal
NS	1	AW-18973	Cable, Elevation Motor
NS	1	AW-19221-Q	Cable, Contact Heart Rate Grip and Ground
NS	1	AW-19235	Cable, Control Board, Ground
NS	1	AX-19193	Controller Mount
NS	1	AX-19354	Kit, Install Hardware
NS	1	DE-18413	Decal, ETL
NS	1	EF-19632	Kit, Fuse Replacement 250 VAC, 15A, Slow Blow
NS	4	EH-10291	Wire Tie, Base
NS	1	EH-19220	Jacket, Corrugated Tubing, 27 Long
NS	1	FS-19190	Controller Mount
NS	1	FS-18771	Cover, Lower, Motor Controller
NS	4	HS-19108	Screw, 5/16-18 x 3/4, LG HXHD, Whiz Lock, GR5
NS	1	HX-19059	Plug, Tube End, 1.5 O.D.
NS	1	KEF-21820	Kit, Fuse Replacement 115 VAC, 20A, Quick Blow
NS	1	LT-03051	Sign Facility Safety
NS	1	LT-19801	Warranty Sheet, 445T
NS	1	LT-19340	Poster, Installation

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ITEM NO.	QTY.	PART NO.	DESCRIPTION
NS	1	LT-19800-X*	Owner's Manual, 445T
NS	1	SK-18554	Kit Brush, McMillan, 3.0HP, 115 VAC or 220 VAC

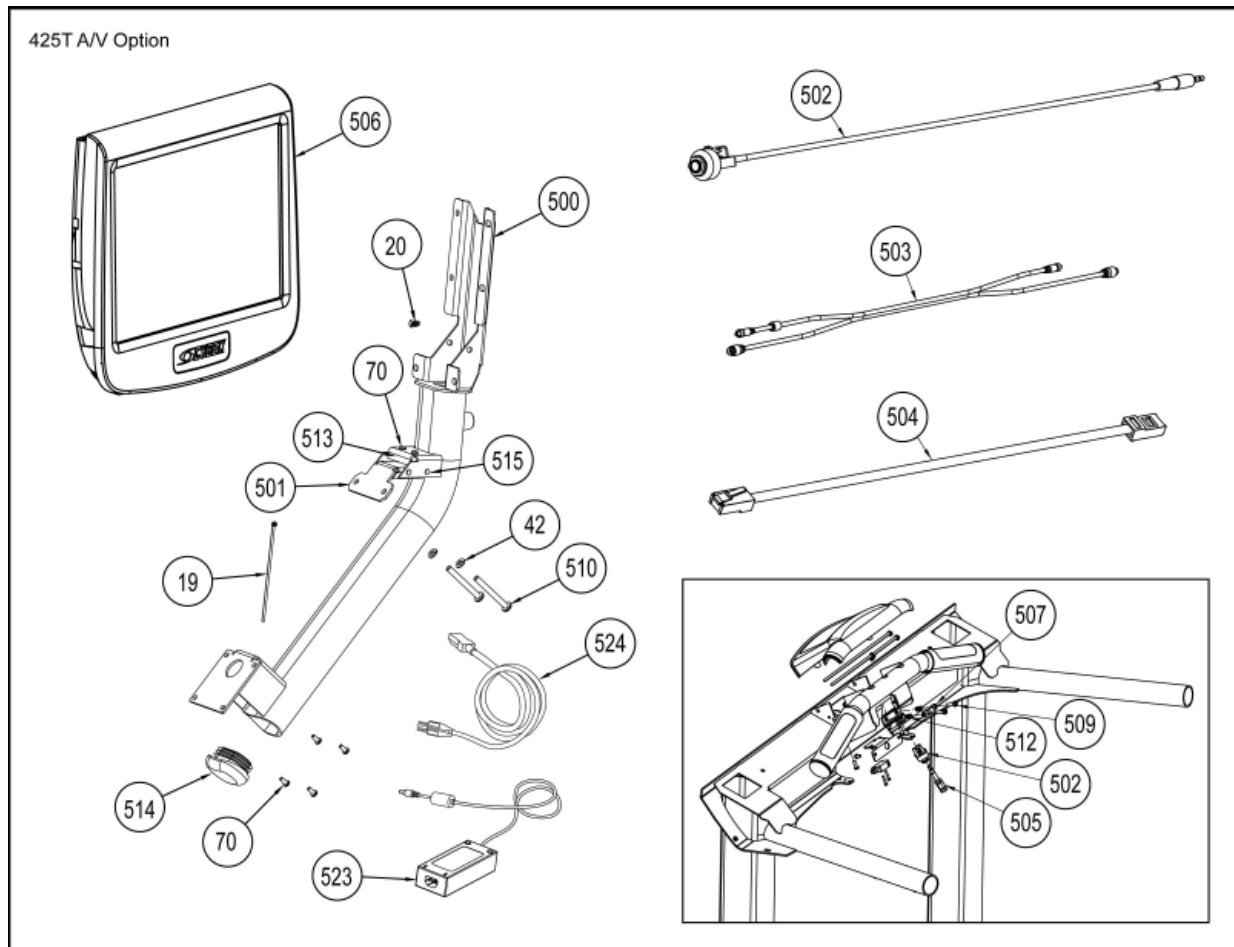
NOTE: NS = Not Shown

*Language Key
1-German
2-French
3-Spanish
4-English
6-Japanese
7-Swedish
8-Russian
A-Danish

Appendix B – Exploded Views

Model 425T

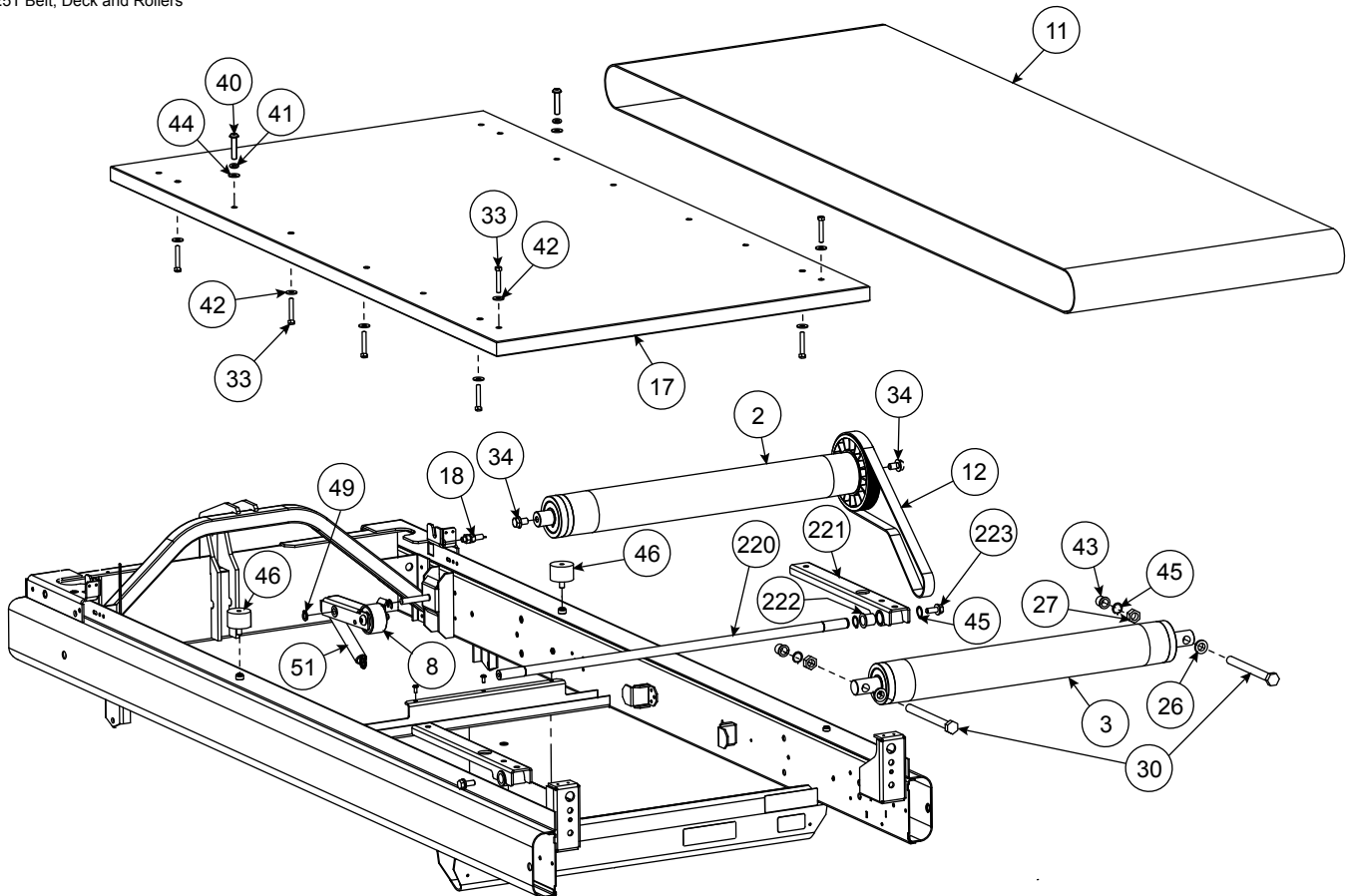
ITEM	QTY.	PART NO.	DESCRIPTION
19	2	EH-00986	Wire Tie, 9"
20	2	EH-10291	Base, Wire Tie
42	2	HW-00180	Washer, Split Lock, 1/4, SST, BLK
70	4	HS-11977	Screw, SEMS, 8/32 x .38, PNHD
500	1	AF-19876	Bracket, Upper mount
501	1	AF-21142	Weldment, PEM Mount, 2nd Gen
502	1	AW-17694	Cable, Audio 1/4" in to 3.5mm, 18 in
503	1	AW-21680	Cable, Locking RF & DC Power Cable, 2795mm
504	1	AW-20111	Cable, 5E Bonded pair RJ45 Round
505	1	CN-17687	Adapter, 1/4" Plug to 1/8" Jack
506	1	CP-21072	Monitor, 13.3" ATSC NTSC PEM
506	1	CP-21073	Monitor, 13.3" DVB-T SECAM PAL PEM
507	1	FS-17698	Clamp, Headphone adapter
509	2	HS-16939	Screw SEMS, 10-32X.75, PNHD, BLK ZN, EXT
510	2	HS-19369	Screw 1/4-20 x 2.25", PNHD PHIL, BLK ZN
512	2	HX-12244	Spring compression brush
513	2	HX-19976	Bushing, Stud plate, 8-32, 6lb Max shear, 18LB Max comp.
514	1	HX-20032	Insert, domed plastic
515	4	HX-20220	Plug, hole .187" DIA, Black
523	1	TR-21265	Power supply, 12VDC, 120-240VAC, 6.0A W-Locking plug
524	1	AW-14007	Power cord, 115V, 60HZ PWR SUPPLY IEC320 (SJT)
524	1	WR-14012	Power cord, 230V, 10A, CEE 7-7, 2M
524	1	AW-20192	Power cord, 100V, 50HZ, 2.5M IEC-320, Japan
524	1	AW-20193	Power cord, 250VAC 10A, 2.5M IEC-320, UK
524	1	AW-22229	Power cord, 10A, 250V IEC 60320 Molded, Danish



Model 425T

ITEM	QTY.	PART NO.	DESCRIPTION
2	1	AL-18596	Front Roller, 2.75 O.D.
3	1	AL-18597	Rear Roller, 2.75 O.D.
8	1	AX-18729	Assembly, Idler
11	1	BD-18763	Belt, Running
12	1	BD-18917	Belt, Poly-V,320J8
17	1	DK-18401	Deck, Running
18	1	KAX-21507	Sensor, Speed
26	2	HB-16367	Bushing, .50 I.D. x .62 O.D. x .31 LG, Flanged
27	2	HN-10029	Nut, 1/2 - 13 HEX STL ZINC
30	2	HS-00261	Bolt, 1/2 - 13 x 5.5, HXHD
33	10	HS-16628	Bolt, 1/4 - 20 x 1.5, HXHD, G8
34	6	HS-16929	Bolt, Whiz Lock, 3/8 - 16 x .625, HXHD, G5
40	2	HS-41107	Bolt, 5/16 - 18 x 1.5, BTHD, SST, BLK
41	2	HW-00165	Washer, Split Lock, 5/16, ZINC
42	8	HW-00180	Washer, Split Lock, 1/4, SST, BLK
43	2	HW-00590	Bushing, Nylon, 1/2
44	12	HW-18123	Washer, .344 I.D. x .75 O.D. x .125 Thick, Black Zinc
45	2	HX-13771	Ring, Retaining, 5/8 x .579 FR. I.D.
46	2	HX-19981	Bushing, Deck, 5/16 - 18
49	1	HX-19529	E-Ring, Retaining, 5555-37
51	1	HX-19052	Idler Spring
220	1	FM-19513	Shaft, Deck Pivot
221	2	AX-20035	Assembly, Deck Pivot Bracket
222	2	HB-18768	Bearing, IGUS LF-1011-12
223	2	HS-19108	Bolt, 5/16-18X3-4LG,HxHd,Whiz

425T Belt, Deck and Rollers

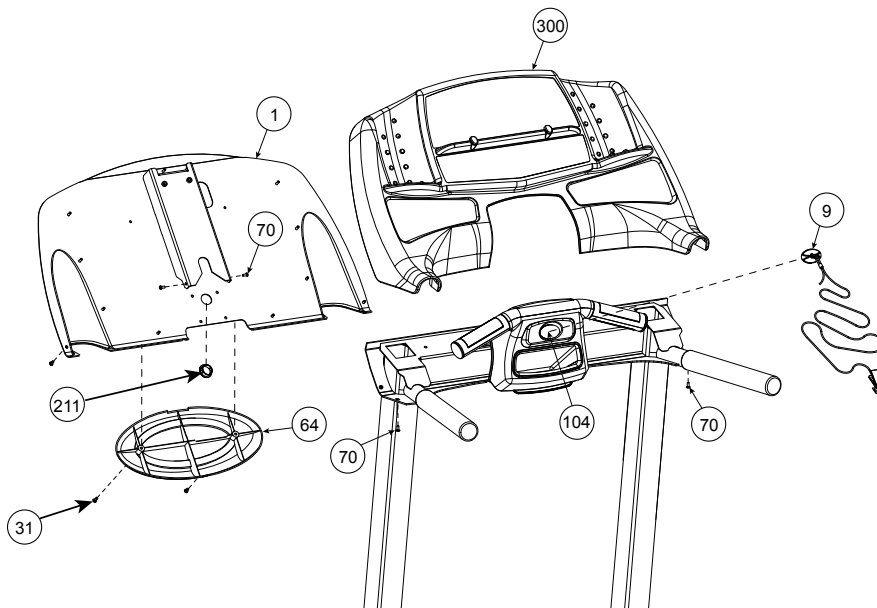
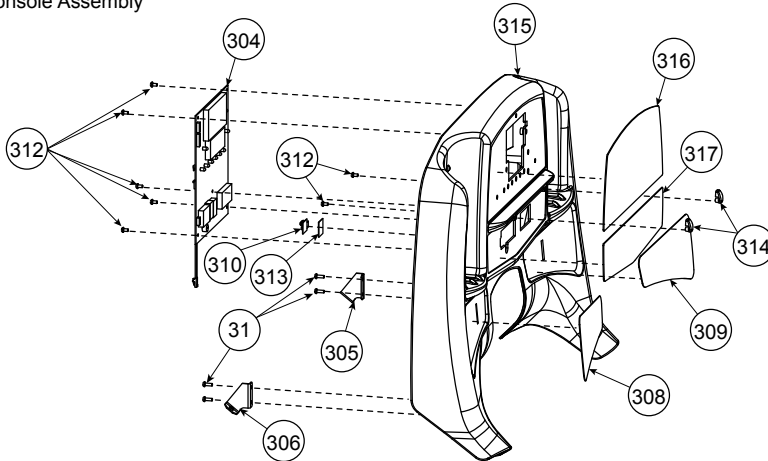


Cybex Treadmill 425T/445T Service Manual

ITEM	QTY.	PART NO.	DESCRIPTION	ITEM	QTY.	PART NO.	DESCRIPTION
1	1	AF-18899	Weldment, Console Back Plate	306	1	AF-19188	Bracket, Console Anchor, Left
9	1	AX-20944	Assembly, E-Stop Lanyard	308	1	DE-18556-X*	Decal, Warning, Right
31	10	HS-15706	Screw, 8-16 x .50, PNHD, STL, BLK ZN CLR, TYP WB	309	1	DE-18557-X*	Decal, Warning, Left
64	1	PL-19061	Cover, Console, Back Trim, 425T	310	1	EC-19236	Sensor, Polar Wireless Remote Mount
70	8	HS-11977	Screw, SEMS, 8/32 x .38, PNHD	312	7	HS-41187	Screw, SLFTP, 8-16 x .3125, Plastite
104	1	DE-20685	Decal, E-stop, Yellow	313	1	HX-17788	Tape, Double Sided, .032 Thick
211	1	HX-18287	Plug, Hole, Plastic, 1", Black	314	2	PL-17686	Tab, Book Holder
300	1	AX-18545-X*	Assembly, 425T Console	315	1	PL-18548	Console, Plastic, 425T
304	1	AD-21467	PCA, Display, 425T	316	1	SW-21456-X*	Membrane, 425T, Top
305	1	AF-19187	Bracket, Console Anchor, Right	317	1	SW-21457-X*	Membrane, 425T, Bottom
				317	1	SW-21458-X*	Membrane, 425T, Bottom, A/V

*Language Key
1-German 2-French 3-Spanish 4-English 6-Japanese 7-Swedish 8-Russian A-Danish

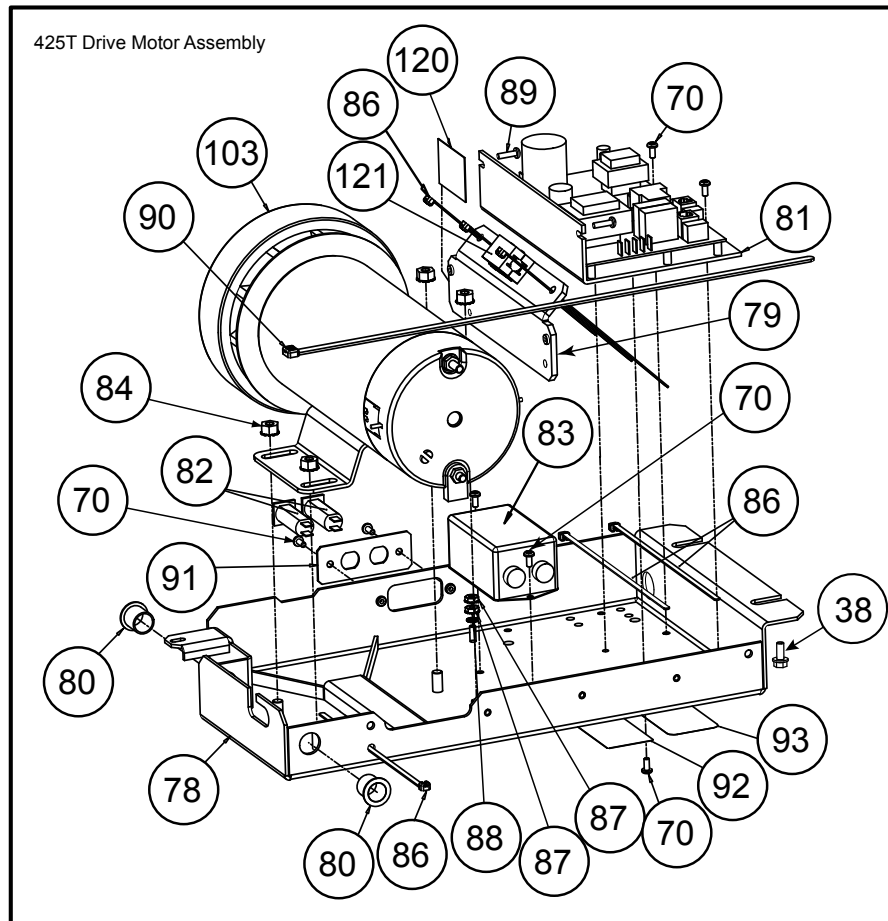
425T Console Assembly



Model 425T

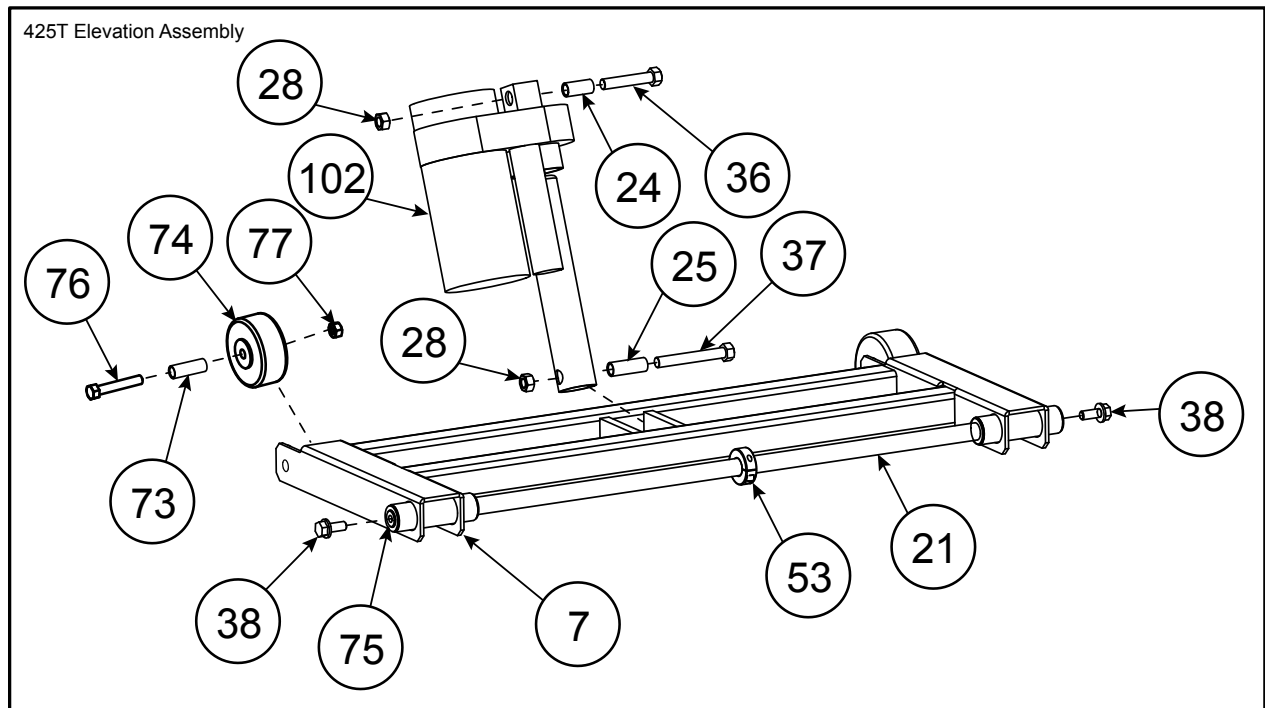
Model 425T

ITEM QTY.	PART NO.	DESCRIPTION
38	4	HS-19108 Screw 5/16-18 x 3/4, HXHD, Whiz-Lock
70	8	HS-11977 Screw, SEMS, 8/32 x .38, PNHD
78	1	AF-18481 Weldment, Motor Base
79	1	AF-18769 Bracket, Heat Sink
80	2	HB-18768 Bearing, LF-1011-12
81	1	AD-18213 PCA, Control Board, 115 VAC
81	1	AD-18217 PCA, Control Board, 230 VAC
82	2	EC-18538 Circuit Breaker, 15 Amp, 115 VAC
82	2	EC-18539 Circuit Breaker, 10 Amp, 250 VAC
83	1	EC-18896 Filter, 16 Amp
84	4	HN-11136 KEPS, 5/16 - 18, HEX STL ZINC
86	8	EH-00986 Wire Tie, Nylon, 9
87	2	HN-11925 KEPS, 10-32, HEX STL ZN
88	1	HW-10856 Washer, Lock External, No. 10 ZC
89	2	HS-15732 Screw, SEMS, 8-32 UNC x .62, PNHD PHIL, ZN
90	1	EH-12260 Wire Tie, Nylon, 18
91	1	FS-19355 Plate, Circuit Breaker Mount
92	1	DE-16928 Label, Disconnect Power, Multilingual
93	1	DE-19238 Decal, Warning, Motor Plate
103	1	MR-19643 Motor, Drive, 115 VAC
103	1	AX-19650 Motor, Drive, 230 VAC
120	1	EH-19416 Heat Sink, Silpad
121	1	EC-15004 Ferrite, Clamp-on, .40 I.D.



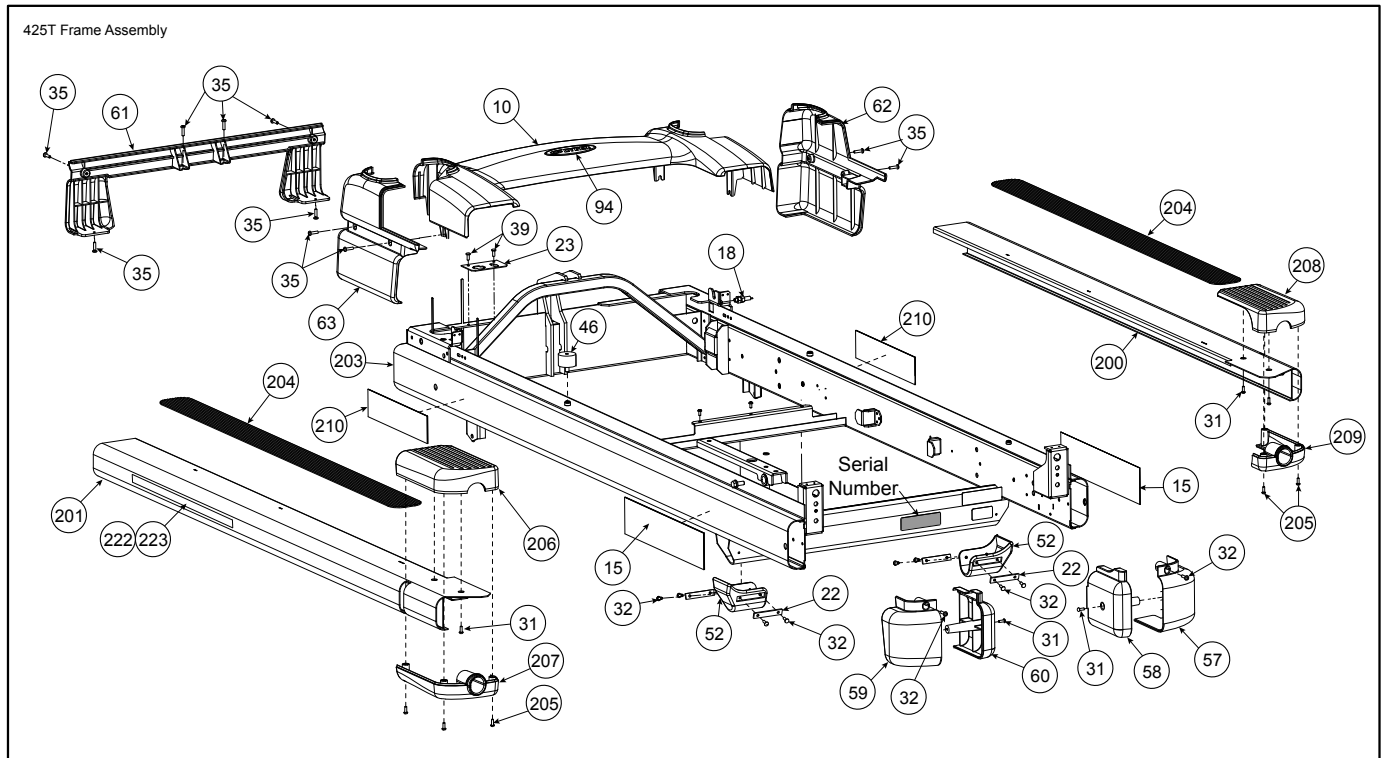
Model 425T

ITEM	QTY.	PART NO.	DESCRIPTION
7	1	AF-18394	Weldment, Elevation
21	1	FM-18405	Shaft, Elevation
24	1	FT-16825	Sleeve, Elevation Mounting, Top
25	1	FT-16826	Sleeve, Elevation Mounting, Bottom
28	2	HN-17935	Nut Locking, 3/8 - 24, GRD C, STL, ZN
36	1	HS-17936	Bolt, 3/8 - 24 x 2.0, HXHD CAP, G8, YEL ZN
37	1	HS-17937	Bolt, 3/8 - 24 x 2.75, HXHD CAP, G8, YEL ZN
38	4	HS-19108	Screw 5/16-18 x 3/4, HXHD, Whiz-Lock
53	1	HX-19384	Coupling, Shaft, DBL Split 5/8
73	2	HX-22247	Busing, Spanner,.500 OD X 1.5"L
74	2	CW-22240	Wheel, 3 Dia. x 1.25 W, Plain Bearing
75	4	HB-18768	Bearing, LF-1011-12
76	2	HS-60022	Bolt, 3/8 x 2.25, HXHD CAP, Black Zinc, G5
77	2	HN-60064	Nut, Jam 3/8 - 16, Black Zinc
102	1	MR-18402	Motor, Elevation, 115 VAC
102	1	MR-18403	Motor, Elevation, 230 VAC



Model 425T

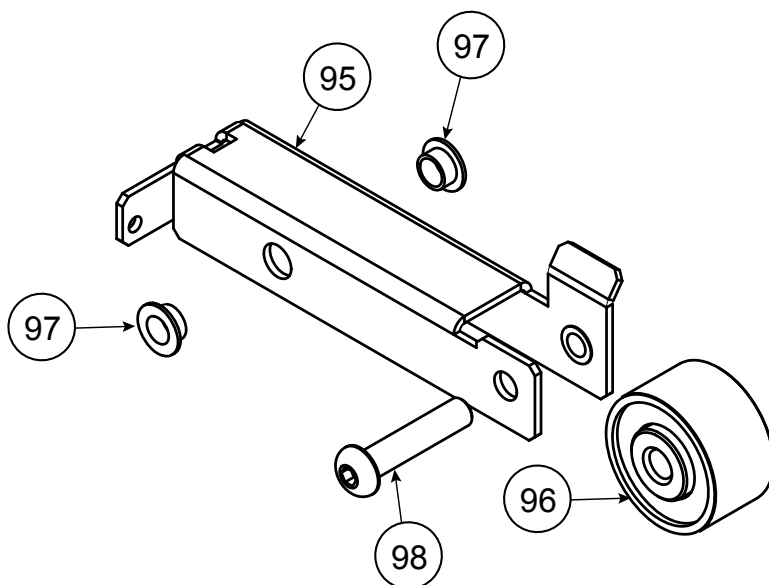
ITEM QTY.	PART NO.	DESCRIPTION	ITEM QTY.	PART NO.	DESCRIPTION
10	1	AX-19239 Assembly, Motor Cover	61	1	PL-18990 Cover, Motor, Front, 425T
15	2	DE-19360 Decal, Side Labels, Black	62	1	PL-18991 Cover, Motor, Right ,425T
15	2	DE-19353 Decal, Side Labels, Silver	63	1	PL-18992 Cover, Motor Left,425T
18	1	EC-18573 Sensor, Speed	94	1	DE-19198 Decal, Cybox
22	4	FS-16511 Plate, Rear Rubber Foot Mounting	200	1	SCK-18765 Assembly, Top Platform, Right
23	1	FS-19213 Cable, Connector Plate, 425T	201	1	SCK-18764 Assembly, Top Platform, Left
31	4	HS-15706 Screw, 8-16 x .50, PNHD, STL, BLK ZN CLR, TYP WB	203	1	AF-18461 Weldment, Frame, 425T
32	10	HS-16509 Screw, SLFTP, 10 x .5, PNHD, PLT, TYP B, PT-S	204	1	DE-18766 Decal, Safety Walk
35	8	HS-16939 Screw, SEMS,10/32 x .75, PNHD, BLK ZN, EXT	205	6	HS-18311 Screw, 8-16 x .75", PNHD, STL, BLK ZN CLR, TYP WB
39	1	HS-41006 Screw, SLFTP, 10/24 x 1.38, PNHD PHIL, SST, BLK, TT	206	1	PL-18931 Cover, Rear, Top Left
46	2	HX-19981 Bushing, Deck, 5/16 - 18	207	1	PL-19120 Cover, Rear, Bottom Left
52	2	HX-19102 Rubber Foot, Rear	208	1	PL-18928 Cover, Rear, Top Right
57	1	PL-18929 Cover, Rear, Outer Right	209	1	PL-19118 Cover, Rear, Bottom Right
58	1	PL-18930 Cover, Rear, Inner Right	210	1	DE-19441 Decal, 425T, Black
59	1	PL-18932 Cover, Rear, Outer Left	210	1	DE-19442 Decal, 425T, Silver 877
60	1	PL-18933 Cover, Rear, Inner Left	222	2	DE-22327 LABEL,BLACK,INTELLIGENT SUSPENSION 3
			223	2	DE-22328 LABEL,SILVER,INTELLIGENT SUSPENSION 3



Model 425T

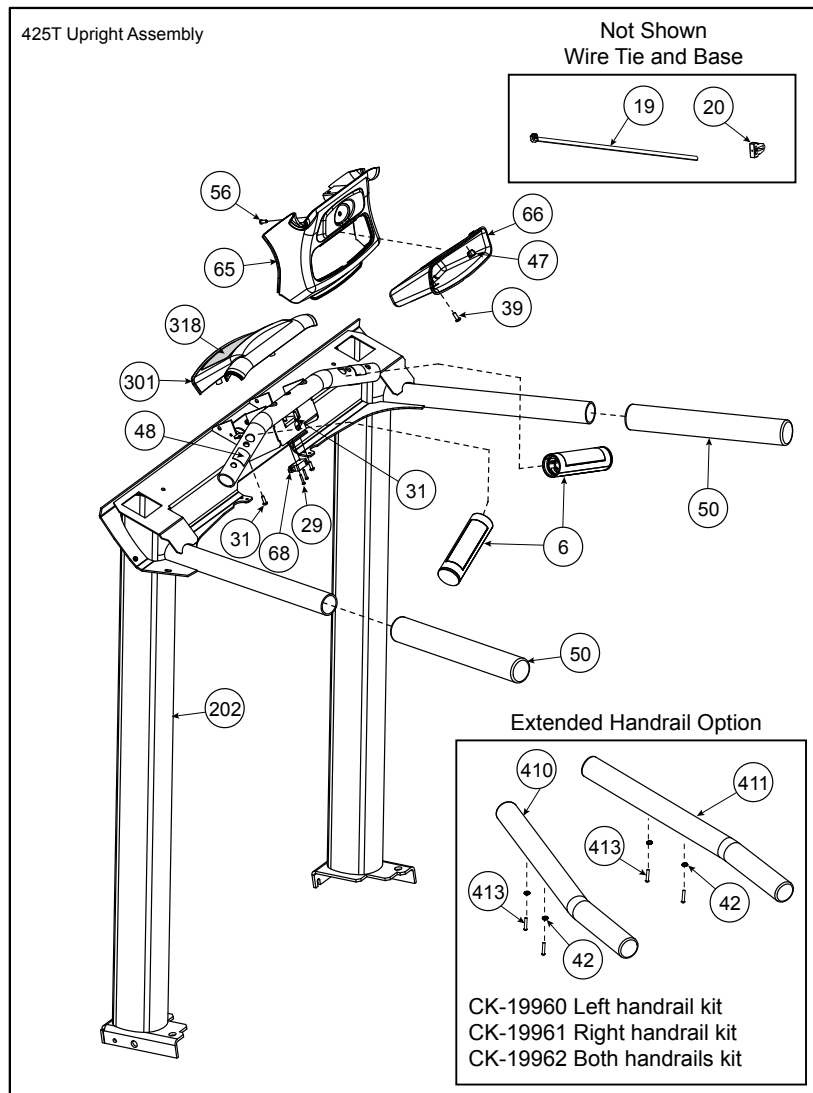
ITEM QTY.	PART NO.	DESCRIPTION
95	1	AF-18728
96	1	HB-19135
97	2	HB-18056
98	1	HS-19338

425T Idler Pulley Assembly



Model 425T

ITEM	QTY.	PART NO.	DESCRIPTION
6	1	SK-17827	Assembly, Contact Grip, Pair
19	1	EH-00986	Wire Tie, 9"
20	1	EH-10291	Base, Wire Tie
29	2	HS-00156	Screw, 4-40 x .62, PNHD PHIL
31	10	HS-15706	Screw, 8-16 x .50, PNHD, STL, BLK ZN CLR, TYP WB
39	1	HS-41006	Screw, SLFTP, 10/24 x 1.38, PNHD PHIL, SST, BLK, TT
47	1	HX-20799	Plug, Plastic, 9/16", BLACK
48	4	HX-17788	Tape, Double Sided, .032 Thick
50	2	HX-18901	Grips, 425 Upright Handrail
56	1	PL-18773	Plunger, E-Stop
65	1	PL-19093	Cover, Handle Lower
66	1	PL-19094	Accessory Tray, 425T Console
68	1	W-18535	Switch, Limit
202	1	SCK-18486	Weldment, Upright
301	1	AX-19356-X	Assembly, Cover, Top CHR
318	1	DE-19189-X	Label, Warning*
42	4	HW-00180	Washer, Split Lock 1/4"
410	1	AX-19735	Assembly, extended handrail, Left, 425T 445T
411	1	AX-19758	Assembly, extended handrail, Right, 425T 445T
413	4	HS-18127	Bolt, 1/4-20 x 1.25",BHCS,SS,Black

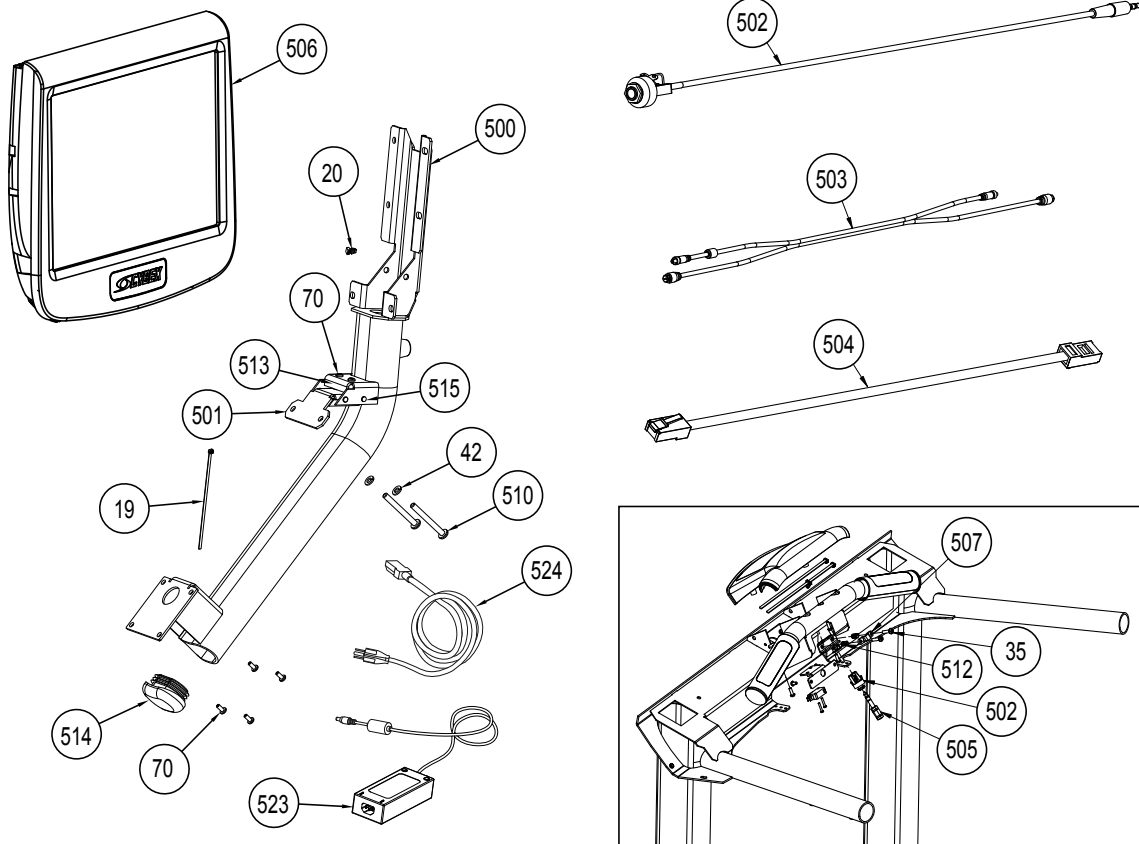


Appendix B – Exploded Views

Model 445T

ITEM QTY.	PART NO.	DESCRIPTION
19	2	EH-00986 Wire Tie, 9"
20	2	EH-10291 Base, Wire Tie
35	2	HS-16939 Screw SEMS, 10-32X.75, PNHD, BLK ZN, EXT
42	2	HW-00180 Washer, Split Lock, 1/4, SST, BLK
70	4	HS-11977 Screw, SEMS, 8/32 x .38, PNHD
500	1	AF-19876 Bracket, Upper mount
501	1	AF-21142 Weldment, PEM Mount, 2nd Gen
502	1	AW-17694 Cable, Audio 1/4" in to 3.5mm, 18 in
503	1	AW-21680 Cable, Locking RF & DC Power Cable, 2795mm
504	1	AW-20111 Cable, 5E Bonded pair RJ45 Round
505	1	CN-17687 Adapter, 1/4" Plug to 1/8" Jack
506	1	CP-21072 Monitor, 13.3" ATSC NTSC PEM
506	1	CP-21073 Monitor, 13.3" DVB-T SECAM PAL PEM
507	1	FS-17698 Clamp, Headphone adapter
510	2	HS-19369 Screw 1/4-20 x 2.25", PNHD PHIL, BLK ZN
512	2	HX-12244 Spring compression brush
513	2	HX-19976 Bushing, Stud plate, 8-32, 6lb Max shear, 18LB Max comp.
514	1	HX-20032 Insert, domed plastic
515	4	HX-20220 Plug, hole .187" DIA, Black
523	1	TR-21265 Power supply, 12VDC, 120-240VAC, 6.0A W-Locking plug
524	1	AW-14007 Power cord, 115V, 60HZ PWR SUPPLY IEC320 (SJT)
524	1	WR-14012 Power cord, 230V, 10A, CEE 7-7, 2M
524	1	AW-20192 Power cord, 100V, 50HZ, 2.5M IEC-320, Japan
524	1	AW-20193 Power cord, 250VAC 10A, 2.5M IEC-320, UK
524	1	AW-22229 Power cord, 10A, 250V IEC 60320 Molded, Danish

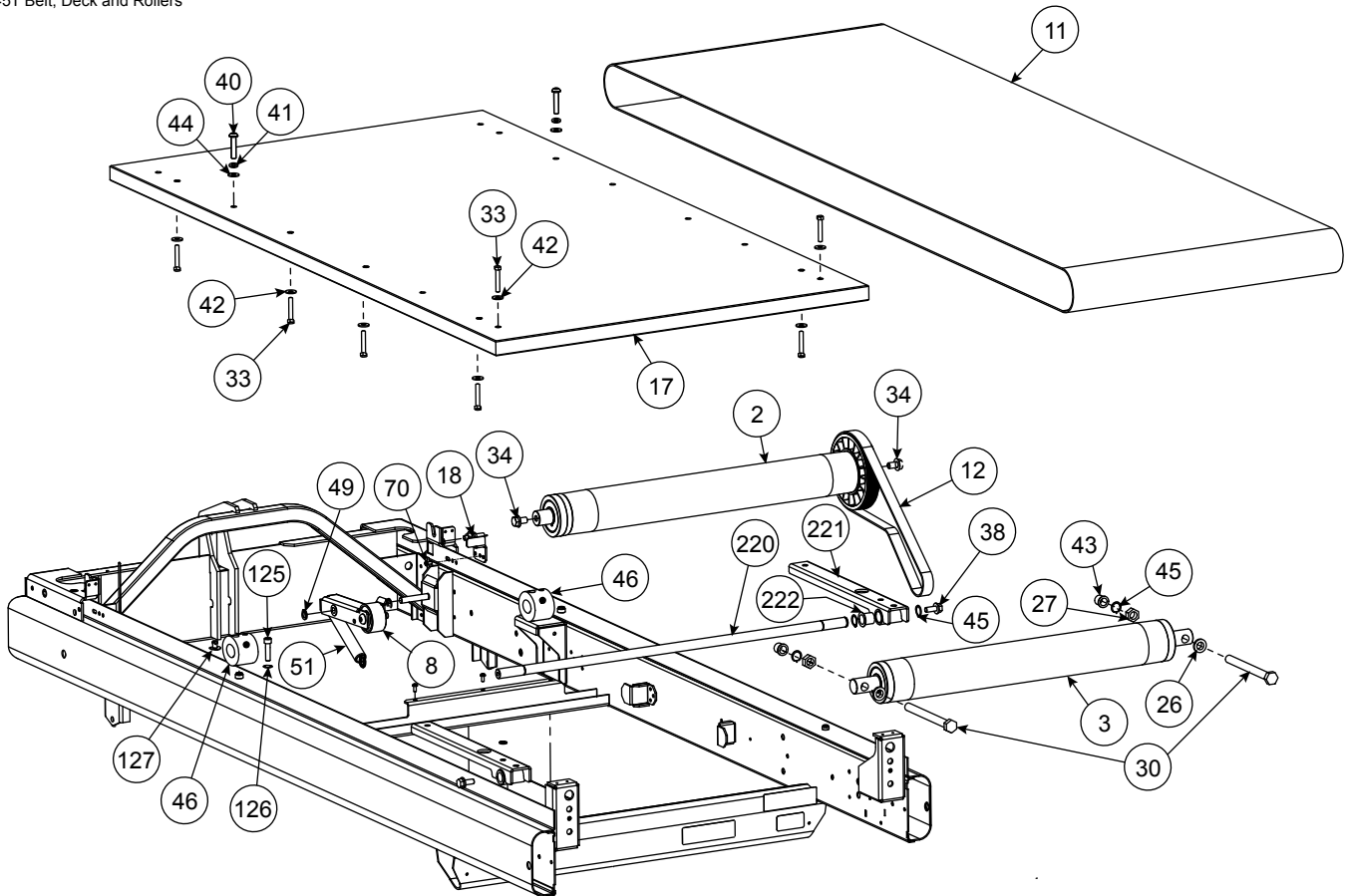
445T A/V Option



Model 445T

ITEM	QTY.	PART NO.	DESCRIPTION	ITEM	QTY.	PART NO.	DESCRIPTION
2	1	AL-18945	Front Roller, 3.0" O.D.	41	2	HW-00165	Washer, Split Lock, 5/16, ZINC
3	1	AL-18946	Rear Roller, 3.0" O.D.	42	8	HW-00180	Washer, Split Lock, 1/4, SST, BLK
8	1	AX-18729	Assembly, Idler	43	2	HW-00590	Bushing, Nylon, 1/2
11	1	BD-19642	Belt, Running	44	12	HW-18123	Washer, .344 I.D. x .75 O.D. x .125 Thick, Black Zinc
11	1	BD-20508	Belt, Running, IFI	45	2	HX-13771	Ring, Retaining, 5/8 x .579 FR. I.D.
12	1	BD-18917	Belt, Poly-V,320J8	46	2	HX-19981	Bushing, Deck, 5/16 - 18
17	1	DK-19641	Deck, Running	49	1	HX-19529	E-Ring, Retaining, 5555-37
17	1	DK-20498	Deck, Running, IFI, Yellow	51	1	HX-19052	Idler Spring
18	1	AX-21500	Sensor, Speed	70	1	HS-11977	Screw, SEMS, 8/32 x .38, PNHD
26	2	HB-16367	Bushing, .50 I.D. x .62 O.D. x .31 LG, Flanged	125	2	HS-18358	Bolt, 5-16-18 x 1.25", SCHD CAP, BLK ZN
27	2	HN-10029	Nut, 1/2 - 13 HEX STL ZINC	126	2	HW-20044	Washer, Belleville, 15 x 8.2 x 1.0mm, .5mm THK
30	2	HS-00261	Bolt, 1/2 - 13 x 5.5, HXHD	127	2	HN-20041	Nut, 1/4-20 Propeller .305" OD
33	10	HS-16628	Bolt, 1/4 - 20 x 1.5, HXHD, G8	220	1	FM-19513	Shaft, Deck Pivot
34	6	HS-16929	Bolt, Whiz Lock, 3/8 - 16 x .625, HXHD, G5	221	2	AX-20035	Assembly, Deck Pivot Bracket
40	2	HS-41107	Bolt, 5/16 - 18 x 1.5, BTHD, SST, BLK	222	2	HB-18768	Bearing, IGUS LF-1011-12

445T Belt, Deck and Rollers

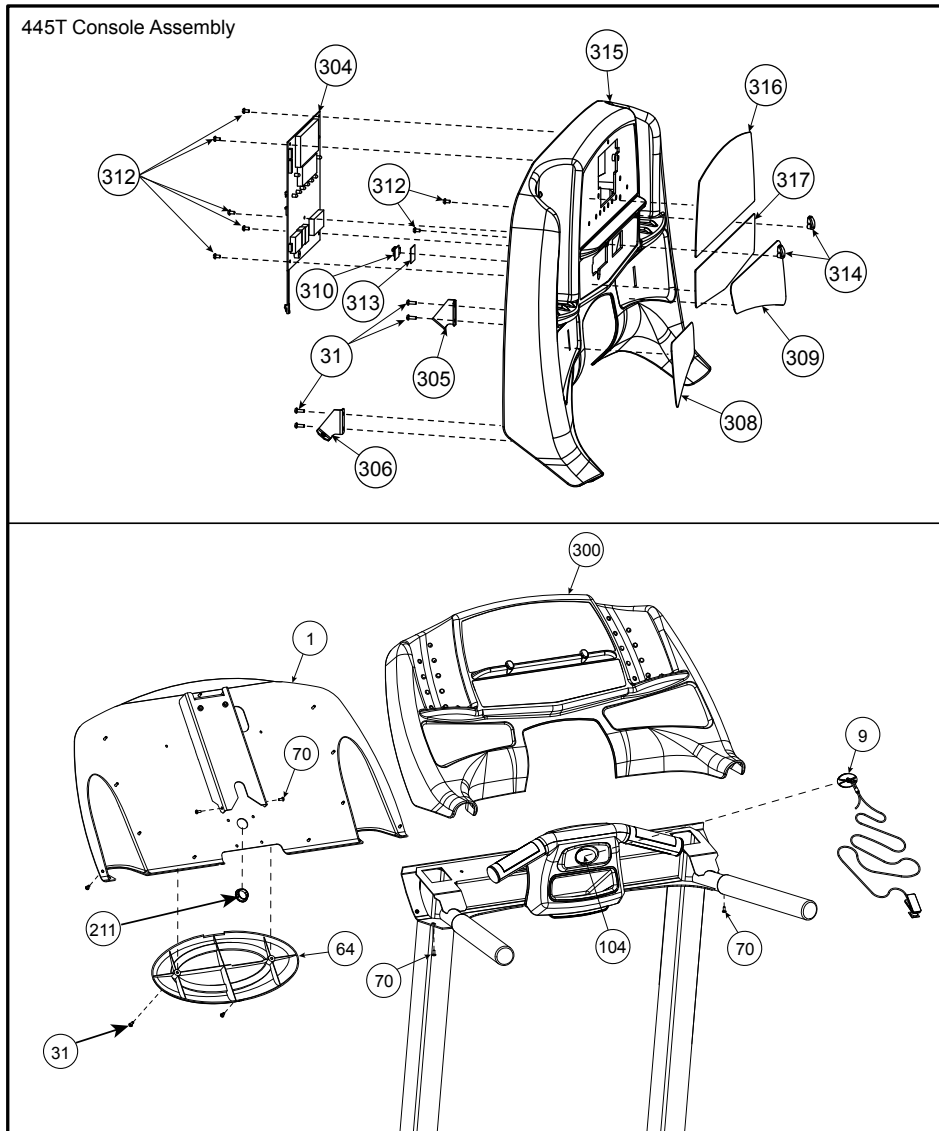


Cybex Treadmill 425T/445T Service Manual

ITEM	QTY.	PART NO.	DESCRIPTION	ITEM	QTY.	PART NO.	DESCRIPTION
1	1	AF-18899	Weldment, Console Back Plate	309	1	DE-18557-X*	Decal, Warning, Left
9	1	AX-20944	Assembly, E-Stop Lanyard	310	1	EC-19236	Sensor, Polar Wireless Remote Mount
31	10	HS-15706	Screw, 8-16 x .50, PNHD, STL, BLK ZN CLR, TYP WB	312	7	HS-41187	Screw, SLFTP, 8-16 x .3125, Plastite
64	1	PL-19061	Cover, Console, Back Trim, 425T	313	1	HX-17788	Tape, Double Sided, .032 Thick
70	8	HS-11977	Screw, SEMS, 8/32 x .38, PNHD	314	2	PL-17686	Tab, Book Holder
104	1	DE-20685	Decal, E-stop, Yellow	315	1	PL-18548	Console, Plastic, 425T
211	1	HX-18287	Plug, Hole, Plastic, 1", Black	316	1	SW-21456-X*	Membrane, 445T, Top
300	1	KAC-20641-X*	Assembly, 425T Console	316	1	SW-20701-4	Membrane, 445T, Top, IFI
304	1	AD-21468-Q	PCA, Display, 425T	317	1	SW-21457-X*	Membrane, 445T, Bottom
305	1	AF-19187	Bracket, Console Anchor, Right	317	1	SW-20700-4	Membrane, 445T, Bottom, IFI
306	1	AF-19188	Bracket, Console Anchor, Left	317	1	SW-21458-4	Membrane, 445T, Bottom, With A/V, English only
308	1	DE-18556-X*	Decal, Warning, Right				

*Language Key
1-German 2-French 3-Spanish 4-English 6-Japanese 7-Swedish 8-Russian A-Danish

445T Console Assembly



Model 445T

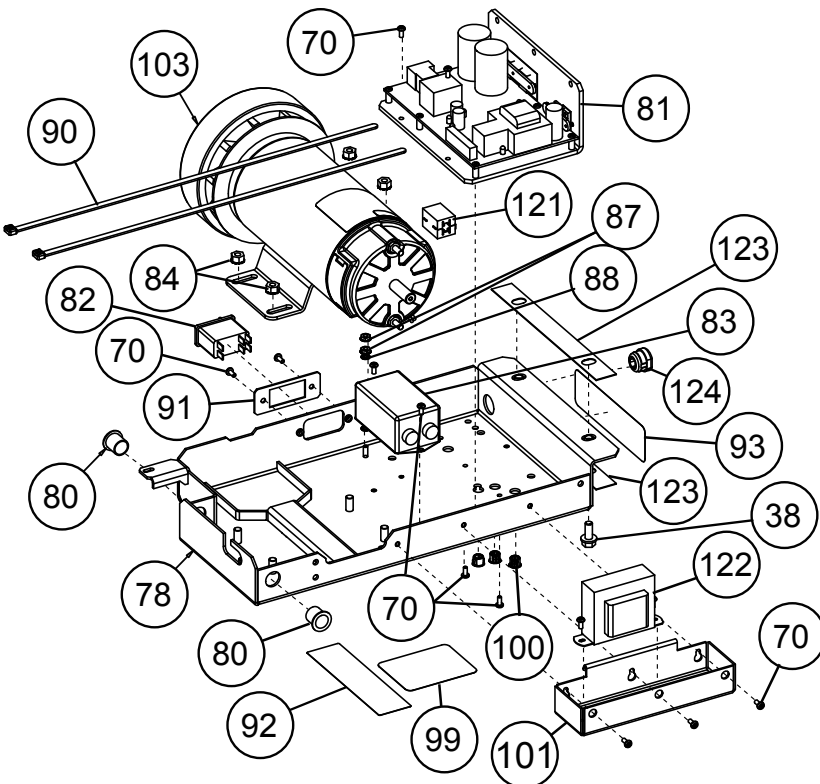
Model 445T

ITEM QTY.	PART NO.	DESCRIPTION
38	4	HS-19108 Screw 5/16-18 x 3/4, HXHD, Whiz-Lock
70	8	HS-11977 Screw, SEMS, 8/32 x .38, PNHD
78	1	AF-18481 Weldment, Motor Base
80	2	HB-18768 Bearing, LF-1011-12
81	1	AD-19085-Q PCA, Control Board, 115 VAC
81	1	AD-19086-Q PCA, Control Board, 230 VAC
82	1	SW-19667 Switch, Rocker, Thermal CB, 20 A
83	1	EC-18896 Filter, 16 Amp
83	1	EC-19869 Filter, 20 Amp
84	2	HN-11136 KEPS, 5/16 - 18, HEX STL ZINC
87	2	HN-11925 KEPS, 10-32, HEX STL ZN
88	1	HW-10856 Washer, Lock External, No. 10 ZC
90	2	EH-12260 Wire Tie, Nylon, 18
91	1	FS-19668 Plate, Circuit Breaker Mount
92	1	DE-20427 Label, Disconnect Power, Multilingual
93	1	DE-19238 Decal, Warning, Motor Plate
99	1	DE-19730-X* Decal, IR Comp Adjust
100	1	HX-17711 Plug, Plastec, 7/16", Black
101	1	AF-19068 Bracket, Power Factor, Choke
103	1	AX-19649 Motor, Drive, 110 VAC
103	1	AX-19560 Motor, Drive, 220 VAC
121	1	EC-15004 Ferrite, Clamp-on, .40 I.D.
122	1	TR-19201 Choke
123	2	HX-19857 Strip, Motor Base, Isolation
124	1	EH-19717 Bushing, Strain Relief, .370"

*Language Key

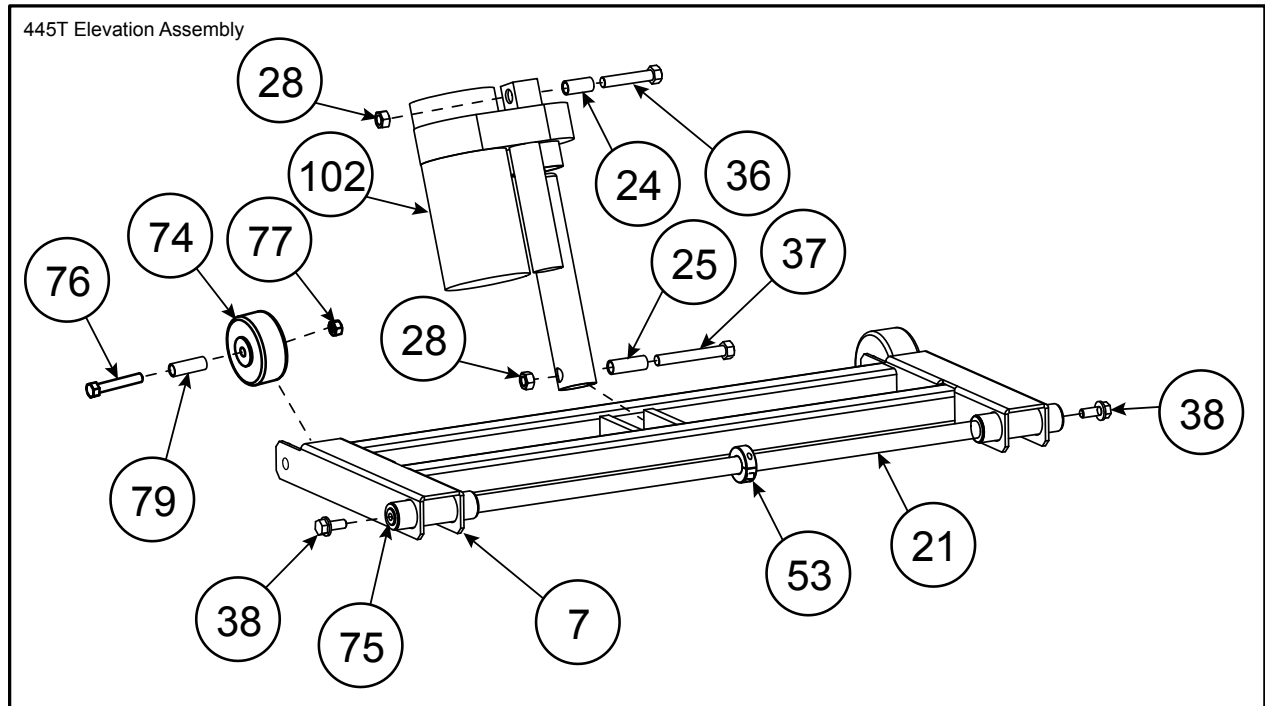
1-German 2-French 3-Spanish 4-English 6-Japanese 7-Swedish 8-Russian A-Danish

445T Drive Motor Assembly



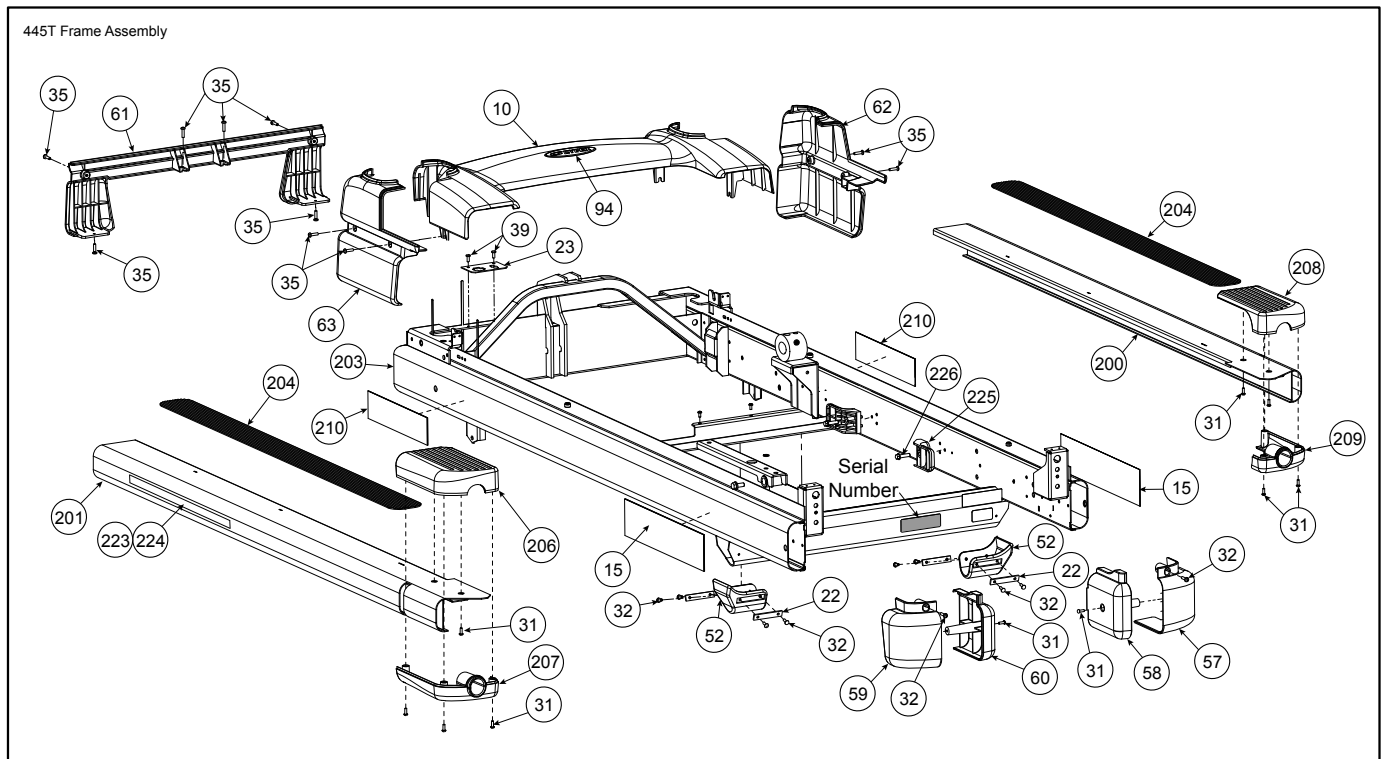
Model 445T

ITEM	QTY.	PART NO.	DESCRIPTION
7	1	AF-18394	Weldment, Elevation
21	1	FM-18405	Shaft, Elevation
24	1	FT-16825	Sleeve, Elevation Mounting, Top
25	1	FT-16826	Sleeve, Elevation Mounting, Bottom
28	2	HN-17935	Nut Locking, 3/8 - 24, GRD C, STL, ZN
36	1	HS-17936	Bolt, 3/8 - 24 x 2.0, HXHD CAP, G8, YEL ZN
37	1	HS-17937	Bolt, 3/8 - 24 x 2.75, HXHD CAP, G8, YEL ZN
38	4	HS-19108	Screw 5/16-18 x 3/4, HXHD, Whiz-Lock
53	1	HX-19384	Coupling, Shaft, DBL Split 5/8
74	2	CW-22240	Wheel, 3 Dia. x 1.25 W, Plain Bearing
75	4	HB-18768	Bearing, LF-1011-12
76	2	HS-60022	Bolt, 3/8 x 2.25, HXHD CAP, Black Zinc, G5
77	2	HN-60064	Nut, Jam 3/8 - 16, Black Zinc
79	2	HX-22247	Busing, Spanner, .500 OD X 1.5"L
102	1	MR-18402	Motor, Elevation, 115 VAC
102	1	MR-18403	Motor, Elevation, 230 VAC



Model 445T

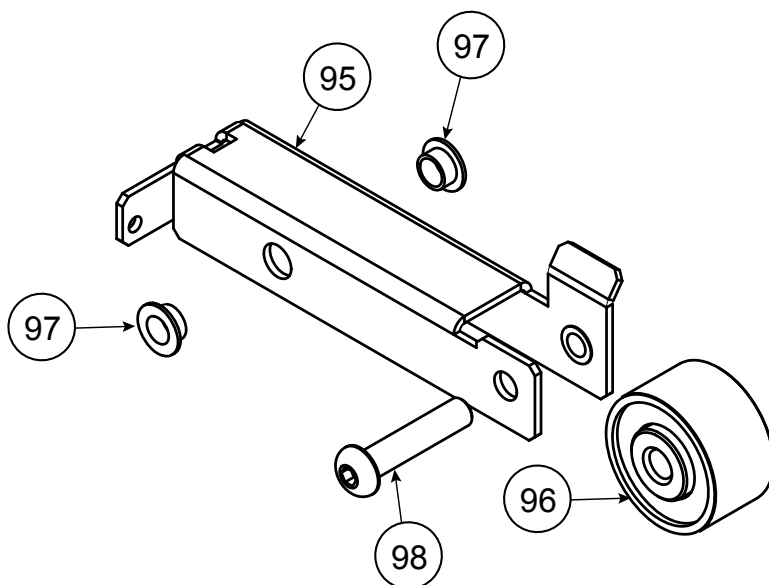
ITEM QTY.	PART NO.	DESCRIPTION	ITEM QTY.	PART NO.	DESCRIPTION		
10	1	AX-19239	Assembly, Motor Cover	94	1	DE-19198	Decal, Cybex
15	2	DE-19360	Decal, Side Labels, Black	200	1	SCK-18765	Assembly, Top Platform, Right
15	2	DE-19353	Decal, Side Labels, Silver	201	1	SCK-18764	Assembly, Top Platform, Left
22	4	FS-16511	Plate, Rear Rubber Foot Mounting	203	1	AF-20559	Weldment, Frame, 445T
23	1	FS-19731	Plate, Cable Connector, 445T	204	1	DE-18766	Decal, Safety Walk
31	4	HS-15706	Screw, 8-16 x .50, PNHD, STL, BLK ZN CLR, TYP WB	204	1	DE-20718	Decal, Safety Walk, IFI
32	10	HS-16509	Screw, SLFTP, 10 x .5, PNHD, PLT, TYP B, PT-S	206	1	PL-18931	Cover, Rear, Top Left
35	8	HS-16939	Screw, SEMS,10/32 x .75, PNHD, BLK ZN, EXT	207	1	PL-19120	Cover, Rear, Bottom Left
39	1	HS-41006	Screw, SLFTP, 10/24 x 1.38, PNHD PHIL, SST, BLK, TT	208	1	PL-18928	Cover, Rear, Top Right
52	2	HX-19102	Rubber Foot, Rear	209	1	PL-19118	Cover, Rear, Bottom Right
57	1	PL-18929	Cover, Rear, Outer Right	210	1	DE-19726	Decal, "CX 445T", Black
58	1	PL-18930	Cover, Rear, Inner Right	210	1	DE-19727	Decal, "CX 445T", Silver 877
59	1	PL-18932	Cover, Rear, Outer Left	223	2	DE-22327	LABEL,BLACK,INTELLIGENT SUSPENSION 3
60	1	PL-18933	Cover, Rear, Inner Left	224	2	DE-22328	LABEL,SILVER,INTELLIGENT SUSPENSION 3
61	1	PL-18990	Cover, Motor, Front, 425T	225	2	PL-22129	Bracket,Power cord storage, Plastic
62	1	PL-18991	Cover, Motor, Right ,425T	226	2	HS-22137	Bolt, 1/4-14 x 1.25",HXHD, Washer, TYP AB,STL ZN
63	1	PL-18992	Cover, Motor Left,425T				



Model 445T

ITEM QTY.	PART NO.	DESCRIPTION
95	1 AF-18728	Bracket, Idler
96	1 HB-19135	Idler Wheel, 1.88 x 1.0
97	2 HB-18056	Bushing, Flange, .375 x .469 x .25
98	1 HS-19338	Screw, 3/8 - 16 x 1.75, SCHD BTN, BLK, ZN

445T Idler Pulley Assembly



Model 445T

ITEM QTY.	PART NO.	DESCRIPTION	
6	1	SK-17827	Assembly, Contact Grip, Pair
19	1	EH-00986	Wire Tie, 9"
20	1	EH-10291	Base, Wire Tie
29	2	HS-00156	Screw, 4-40 x .62, PNHD PHIL
31	10	HS-15706	Screw, 8-16 x .50, PNHD, STL, BLK ZN CLR, TYP WB
39	1	HS-41006	Screw, SLFTP, 10/24 x 1.38, PNHD PHIL, SST, BLK, TT
42	4	HW-00180	Washer, Split Lock 1/4"
47	1	HX-20799	Plug, Plastic, 9/16", BLACK
48	4	HX-17788	Tape, Double Sided, .032 Thick
50	2	HX-18901	Grips, 425 Upright Handrail
56	1	PL-18773	Plunger, E-Stop
65	1	PL-19093	Cover, Handle Lower
66	1	PL-19094	Accessory Tray, 425T Console
68	1	SW-18535	Switch, Limit
202	1	SCK-18486	Weldment, Upright
301	1	AX-19356-X*	Assembly, Cover, Top CHR
318	1	DE-19189-X*	Label, Warning
410	1	AX-19735	Assembly, extended handrail, Left, 425T 445T
411	1	AX-19758	Assembly, extended handrail, Right, 425T 445T
413	4	HS-18127	Bolt, 1/4-20 x 1.25",BHCS,SS,Black
414	1	CK-19962	Extended Handrail, Left and Right, 445T

*Language Key

1-German

2-French

3-Spanish

4-English

6-Japanese

7-Swedish

8-Russian

A-Danish

