



# ES9.0 + ES7.0 TREADMILL OWNER'S MANUAL



# THANK YOU FOR SELECTING TRUE

In 1981, Frank Trulaske launched TRUE Fitness®, and began manufacturing premium hand-crafted treadmills.

His team's obsession with quality has propelled TRUE to the top of the fitness industry and has created one of America's oldest, largest and most respected fitness equipment manufacturers.

Over the years, TRUE has designed, developed, patented and fabricated many new cutting-edge innovations for their products. Such advancements include groundbreaking new features, state-of-the-art manufacturing components, and technological breakthroughs.



"OUR ORIGINAL GOAL WAS TO BUILD THE WORLD'S BEST FITNESS EQUIPMENT, AND TODAY WE BELIEVE WE'RE DOING IT!"

-FRANK TRULASKE

While TRUE has expanded its line of products, intensive quality control standards guarantee excellence in every phase of production. This results in the finest products available in the marketplace.

TRUE is the choice for cardio workouts among beginners, rehab patients and top athletes worldwide.

Today TRUE Fitness offers a full line of premium elliptical trainers, treadmills, upright and recumbent bikes, and flexibility equipment.



## REVIEW FOR YOUR SAFETY IMPORTANT SAFETY INSTRUCTIONS

*When using this exercise machine, basic precautions should always be followed, including the following:*

Read and understand all instructions and warnings prior to use.

Obtain a medical exam before beginning any exercise program. If at any time during exercise you feel faint, dizzy, or experience pain, stop and consult your physician.

Obtain proper instruction prior to use.

Inspect the treadmill for incorrect, worn, or loose components and do not use until corrected, replaced, or tightened prior to use.

Do not wear loose or dangling clothing while using the treadmill.

Care should be used when mounting or dismounting the treadmill.

Read, understand, and test the emergency stop procedures before use.

Disconnect all power before servicing the treadmill.

Do not operate electrically powered treadmills in damp or wet locations.



## REVIEW FOR YOUR SAFETY IMPORTANT SAFETY INSTRUCTIONS

Do not exceed maximum user weight of 400 lbs.

Keep the top side of the moving surface clean and dry.





Keep children and animals away.



This treadmill is intended for residential use only.

All exercise equipment is potentially hazardous. If attention is not paid to the conditions of equipment usage, death or serious injury could occur.


Ensure that the back of the treadmill is placed at least 39" away from a wall or other obstructions.


Ensure the the sides of the treadmill are placed at least 20" away from a wall or other obstructions.

**Quick Start** into a manual workout by pressing , or set up a different workout by selecting a workout and adjusting settings if necessary. Use   keys, or numeric keys and press  to accept each setting.

You can keep tuning your workout setup by repeatedly pressing  to go to the next setting. Your workout starts only when you press .

Press  to begin your workout.

**Adjust speed or incline** at any time by using the dedicated **speed** and **incline** keys on the control pod, pressing  to accept your adjustment.

**Change workouts** during your workout by pressing a Quick Workout key or the Pre-Set Workout key and pressing .

**Change data readouts** by pressing .

**Pause your workout** by pressing .

BEFORE  
YOUR  
WORKOUT

DURING  
YOUR  
WORKOUT



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**Specifications/Features/Software are subject to change**



## STARTING AND STOPPING THE TREADMILL SAFELY

Place your feet on the straddle covers.

Attach the safety lanyard to your waistband.

Place the safety key on the key holder.

Set up your workout (see Chapter 1) and press  .

Stop the treadmill by reducing speed to 2 mph, then press  .


# BASIC OPERATION




## IN THIS CHAPTER:




Using The Keyboard  
Manual & Quick Workouts  
Other Settings  
Heart Rate Monitoring  
Contact Heart Rate  
Special Workouts  
Classic Pre-Set Workouts




Chapter 1: Basic Operation  
Chapter 2: Console Operation  
Chapter 3: Heart Rate Control Workouts  
Chapter 4: User Workouts  
Chapter 5: Gerkin Fitness Test  
Chapter 6: RxHRC  
Chapter 7: Fans  
Chapter 8: Designing an Exercise Program  
Chapter 9: Care and Maintenance




**Selecting Workouts:** Press any of the workout keys and press to  begin your workout using the default settings. The Special Workout keys have multiple choices under each key; press the key multiple times to access the additional choices.

Before pressing , you may adjust other settings like Workout Time and Body Weight, pressing  after adjusting each setting. Press  at any time to begin your workout. Note that HRC and HRC Planner workouts require settings adjustments.




**Adjusting Settings:** Use the numeric keypad and the   keys, to adjust numeric settings. Press  to accept each settings adjustment.



**Control Pod / Primary Controls:** During your workout, press  to stop the treadmill and pause your workout. Press  to resume your workout. Press and hold  to clear your workout.


**Change Data Display:** During your workout, press  to change the data displayed.


**Safety Lanyard:** This magnetized cord must be in place on the treadmill balance bar location, and should be attached to your clothing. The treadmill will not operate if the lanyard is not attached.


**Press Quick Start:** Start the treadmill at 0.5 mph at the default workout time of 30 minutes.


**Setting Time or Distance Targets:** Enter your weight and press . Now either enter a workout time and press , or press  to be prompted for a target distance.

You can keep adjusting your workout setup by repeatedly pressing . Your workout starts only when you press .

: Press this single key to quickstart the treadmill to 3 mph.

: Press this single key to quickstart the treadmill into the walk segment of Level 8 Speed Intervals, alternating between 3 mph & 6 mph in one-minute increments. See page 11 to learn a how to customize these speeds.

: Quick Starts treadmill to 6 mph.

: Press the Cool Down key to exit your workout into a walk. The cool-down speed at 0% grade is calculated to be 40% of your average workout intensity or 2.5 mph, whichever is lower.

MANUAL  
OPERATION  
DETAILS

QUICK  
WORKOUTS



# MANUAL & QUICK WORKOUTS

## CHAPTER ONE: BASIC OPERATION

### *Quick Workout Keys [walk, walk+run, run]*

Use these keys to set up your favorite training speeds.

While the treadmill is operating in manual mode, pressing and holding either the walk or run key will “save” that speed as that key’s operating speed. Pressing that key will change the treadmill speed to that speed.


**Note:** you can’t set a higher speed for the walk key than is set in the run key. Tip: set the walk key speed first.

The walk+run key uses the speeds set in the walk and run keys in an interval workout pattern. It alternates every 60 seconds between the walk speed and the run speed.

Before you customize these keys, the walk key is set to 3 mph, and the run key is set to 6 mph.

CUSTOM  
QUICK  
WORKOUTS

**Important:** Quick speed keys change speed with a single key press, so take care in the keys you press.

Press , lighting the enable LED. Now the numeric keys function as speed change keys from 1 mph to 9 mph. Quickspeed is functional in any workout except fitness tests and Heart Rate Control.

Disable QuickSpeed by pressing  again.

During workout set up, set a correct body weight *including clothes* so the treadmill can better estimate your calorie expenditure.

This features lets you adjust the softness of the running surface. Move the lever on the right side of the treadmill from 1 (softest) to 8 (firmest).

SOFT Select is especially useful to accommodate users of different weights or those with special physical needs.

The fans have two speeds plus off. The default is medium speed.

QUICK  
SPEED

BODY  
WEIGHT

SOFT  
SELECT

FANS

Calorie goal allows you to choose the number of calories you wish to burn, and the treadmill will calculate the required speed and incline to attain this goal, including a 3-minute warm up and 3-minute cool down. For safety and comfort reasons, you set a maximum speed.

### CALORIE GOAL

#### Setting Up a Calorie Goal Workout

1. Press Weight Loss until you see the Calorie Goal Workout prompt, then press Enter.
2. Adjust Weight & enter workout time. This workout time includes a 3-minute warmup and a 3-minute cooldown.
3. Enter calorie goal.
4. Enter the maximum speed you want the treadmill to never exceed during the calorie goal workout. Make sure this is a comfortable speed for you. Note: this speed will not necessarily ever be attained during the workout. See Step 8 below for more information.
5. If your calorie goal exceeds the ability of the treadmill to attain, you will be re-prompted to either reduce your calorie goal or increase your maximum speed.
6. When your calorie goal is within the abilities of the treadmill, press Start.
7. There is a 3-minute warmup at either 2 mph or your maximum speed, whichever is less.
8. After the warmup, the treadmill will immediately speed up and change incline to reach the exercise intensity required to attain your calorie goal. For your comfort and safety, the treadmill attempts to keep you at a walking speed of 3 mph or less, using incline to reach the necessary exercise intensity.
9. There is a 3-minute cooldown at the end of your workout time.



## OTHER SETTINGS

### CHAPTER ONE: BASIC OPERATION

Your ES Series treadmill also comes with advanced workout options for those who look to get the most out of their training.

ADVANCED  
SETTINGS

### Quick Workout Keys [walk, walk+run, run]

QUICK  
WORKOUT  
KEYS

Use these keys to set up your favorite training speeds.

While the treadmill is operating in manual mode, pressing and holding either the walk or run key will “save” that speed as that key’s operating speed. Pressing that key will change the treadmill speed to that speed.

**Note:** you can’t set a higher speed for the walk key than is set in the run key. **Tip:** set the walk key speed first.

The walk+run key uses the speeds set in the walk and run keys in an interval workout pattern. It alternates every 60 seconds between the walk speed and the run speed.

Before you customize these keys, the walk key is set to 3 mph, and the run key is set to 6 mph.

**Caution:** just a single keypress of these keys will change the treadmill speed.

## **Weight Loss**

## WEIGHT LOSS

By pressing the “Weight Loss” key, users have the option of choosing one of six separate programs that assist users in achieving their weight loss goals. These programs are:

- Calorie Goal
- Hill Intervals
- Leg Shaper
- Sports Training
- Calorie Burn
- HRC

## **Performance**

## PERFORMANCE

By pressing the “Performance” key, users have the option of choosing one of seven separate programs that assist users in achieving their performance related goals. These programs are:

- 5k and 10k Workouts
- Custom Interval
- Custom Workout
- Speed Intervals
- Speed Ramp
- Glute Buster
- Cardio Challenge

### 5K and 10k Runs

These are fixed-distance workouts, much as you would run a 5k or 10k road course. Choose your preferred distance and press Start. You have complete manual control over speed and incline.

**Predicted Finish Time Feature:** The default time display in the 5k and 10k runs is your predicted finish time if you continue at the current pace to the end of the run. The Time field will be labeled simply Time. As you change your pace, your predicted finish time is updated.

Pressing Change Display will change the Time display to Elapsed Time. Pressing Change Display again will change back to predicted finish time.

### Important Note About Calorie Usage:

The treadmill estimates your calorie usage using formulas from the industry-standard Guidelines for Exercise Testing and Prescription, from the American College of Sports Medicine. Variations between individuals make these formulas accurate to only about plus or minus 20%.

Further error may occur because of the walking and running transition. The treadmill assumes you are walking at 4 mph or slower. If you are actually jogging at speeds lower than 4 mph, the treadmill will greatly underestimate your calorie usage.

5K & 10K  
RUNS

CALORIE  
GOAL



This treadmill can monitor your heart rate using either the chest strap provided with the treadmill or the metal grips on the hand rails (called contact heart rate or CHR pads). A chest strap transmits your heart rate to the treadmill via radio, and the CHR pads connect to a special computer circuit to extract your heart rate.

Although this treadmill functions fine without using the heart rate monitoring feature, this kind of monitoring gives you valuable feedback on your effort level. Chest strap monitoring also allows you to use Heart Rate Control, the most advanced exercise control system available.

When you wear a Polar® or compatible transmitter strap, the treadmill will display your heart rate as a digital beats-per-minute (bpm) readout.

The transmitter strap should be worn directly against your skin, about one inch below the pectoral muscles/breast line (see picture). Women should be careful to place the transmitter below their bra line.

Some moisture is necessary between the strap and your skin. Sweat from your exercise works best, but ordinary tap water may be used prior to your workout if desired.



### CHEST STRAP HEART RATE MONITORING

The contact heart rate (CHR) system lets you monitor your heart rate without wearing a strap.

Gently grasp the contact heart rate pads as shown.

When the system detects your hands, the Heart Rate label will start flashing in time with your heart beat. During this time, the system is analyzing and locking in your heart rate. Within about 15 seconds, your digital heart rate in beats per minute (bpm) should be displayed.

**Important:** The CHR System should only be used at speeds of 4 mph or lower. Above this speed the CHR accuracy is unavoidably unreliable due to large muscle movements.



CONTACT  
HEART RATE  
(CHR)



# CONTACT HEART RATE

## CHAPTER ONE: BASIC OPERATION

1. Exercise with smooth body motions.
2. Breathe smoothly and regularly, and avoid talking.  
(Talking will cause unrepresentative heart rate spikes of 5 to 10 bpm.)
3. Grip the pads lightly, not tightly.
4. Make sure your hands are clean, free of both dirt and hand lotions.
5. See Appendix A for more details on Contact Heart Rate monitoring.

When using a Heart Rate Control workout, it is best to use chest strap monitoring. These workouts work best with the extra accuracy gained from a chest-contact heart rate monitoring system.

FOR BEST  
CHR  
RESULTS







### ***A Note on CHR Accuracy***

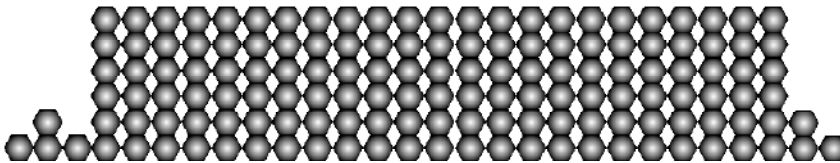
*CHR monitoring may be a bit less accurate than a chest strap, since the heart rate signals are much stronger at the chest.*

*About 5% of the population cannot be picked up by any CHR system. This is because their heart is positioned in a more up-and-down manner in their chest, as opposed to leaning over to one side.*

Each workout has a four-minute warm up and a two-minute cool down. Speed or grade changes stay in effect until the next change is requested by the program. Changing the default workout time adds or removes segments; it does not stretch or compress the workout profile.

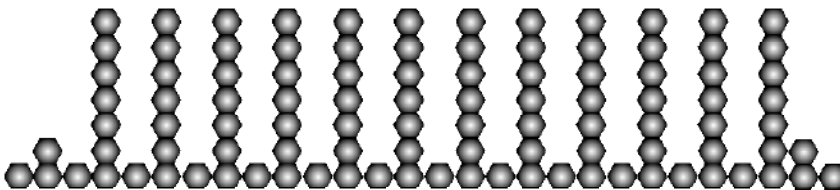
Change workout levels during your workout by pressing the  key, adjusting the numeric level, then pressing . Change to a new pre-set workout during your workout by pressing the  key repeatedly and pressing  at your desired workout.

In a walking workout, all speeds are under 4 mph. Increasing levels increases speed from 2 to 4 mph and grade from 4% to 10%; speed and grade stay constant in the work section. Speed or grade changes in the work section are permanent



*Changes in Grade*

Walking intervals with grade alternate between hills and nearly flat *in two-minute segments*. Speed changes are permanent; grade changes affect the current two-minute segment only.



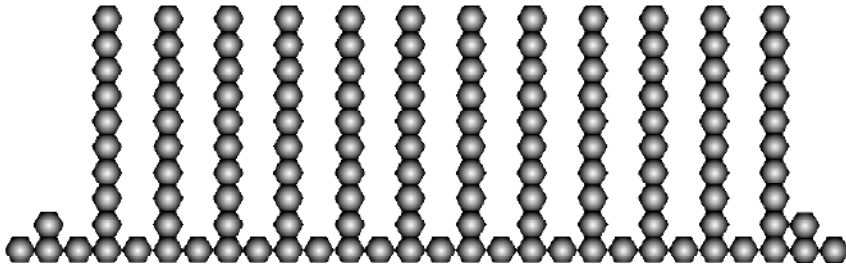
*Changes in Grade*

PRE-SET  
WORKOUTS

WALKING:  
CALORIE  
BURN

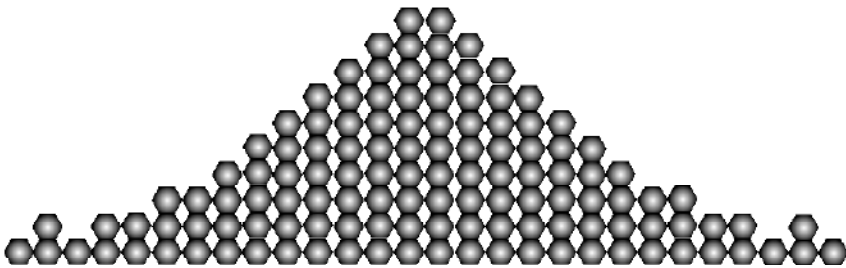
WALKING:  
HILL  
INTERVALS

Zero-grade walking or running intervals are *in one-minute segments*. Grade changes are permanent; speed changes affect the current one-minute segment only.



*Changes in Speed*

Zero-grade gradually increases speed then decreases speed, *changing once per minute*. Grade changes are permanent; speed changes affect the current one-minute segment only.



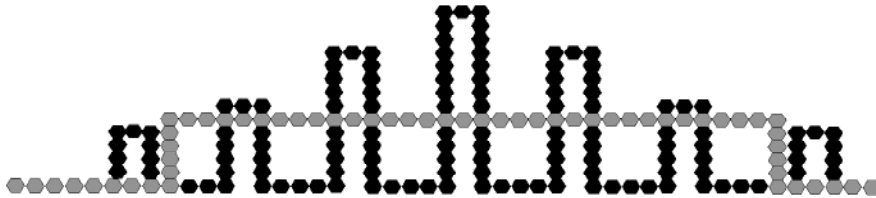
*Changes in Speed*

WALKING  
AND  
RUNNING:  
SPEED  
INTERVALS

WALKING  
AND  
RUNNING:  
SPEED RAMP

These are TRUE's original four pre-set workouts. Changing the workout time stretches and compresses the workout profile, in contrast to the four new pre-set workouts. Other differences are explained below in the individual workout sections.

Incline changes in varying amounts; the new Hills workout has hills of the same size all throughout the workout.



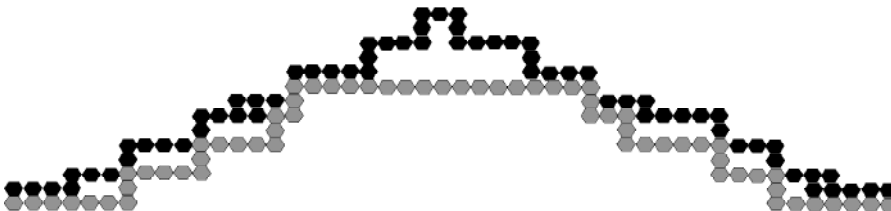
GLUTE  
BUSTER

Very similar to Hill Intervals, with varying incline changes.

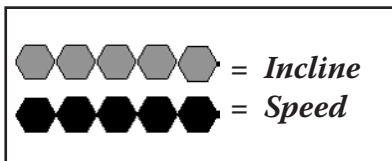


LEG  
SHAPER

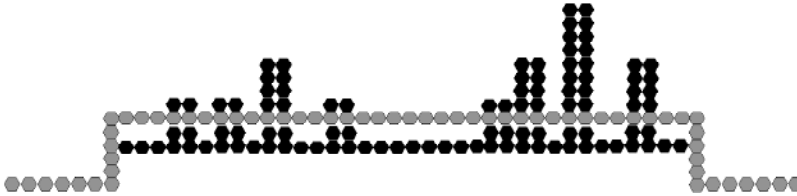
Similar to Speed Ramp, except both speed and grade change.



CARDIO  
CHALLENGE



Different from Speed Intervals 1 with the speed changing in varying amounts.



When the treadmill is changing to a new target speed, the matrix display readout will display the actual speed. As the speed is changing, the message center will display

TARGET = 12.0 MPH

Once the treadmill reaches the new target speed, the Speed readout will show the target speed.

SPEED  
INTERVALS  
2

ACTUAL  
SPEED  
DISPLAY

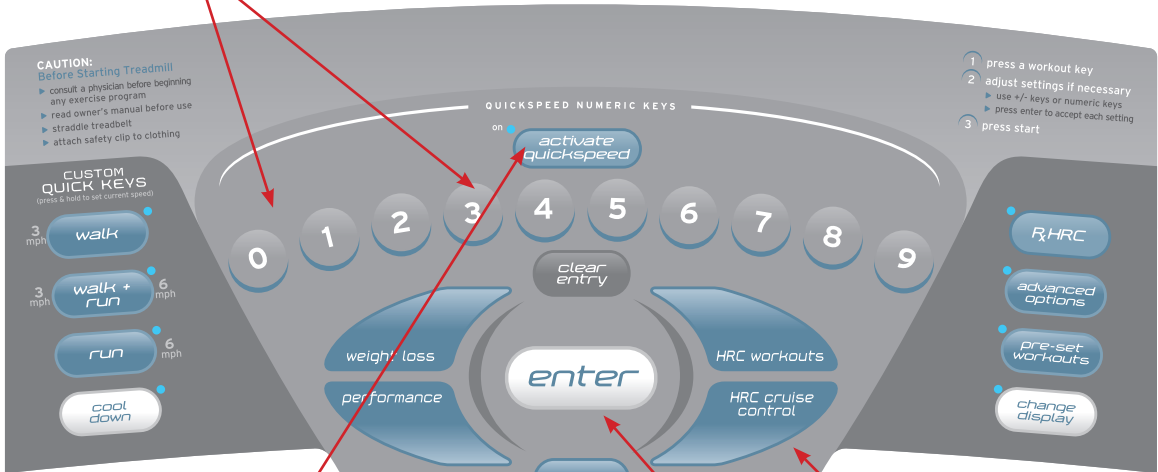


# CONSOLE OPERATION

Chapter 1: Basic Operation  
**Chapter 2: Console Operation**  
Chapter 3: Heart Rate Control Workouts  
Chapter 4: User Workouts  
Chapter 5: Gerkin Fitness Test  
Chapter 6: RxHRC  
Chapter 7: Fans  
Chapter 8: Designing an Exercise Program  
Chapter 9: Care and Maintenance

**Numeric Keys**  
Direct entry of numeric data.

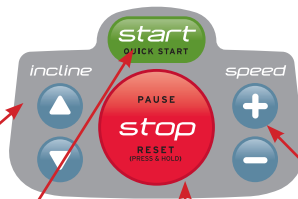
# ES9.0 & 7.0 KEYBOARD



**Activate Quickspeed**  
Enables the numeric keys to function as speed change keys from 1 mph to 9 mph. This is functional in any workout except fitness tests and heart rate control.

**Enter**  
Accepts workout parameters, and toggles the dual function displays.

**HRC Cruise Control**  
In any workout, set your current heart rate as the target heart rate.



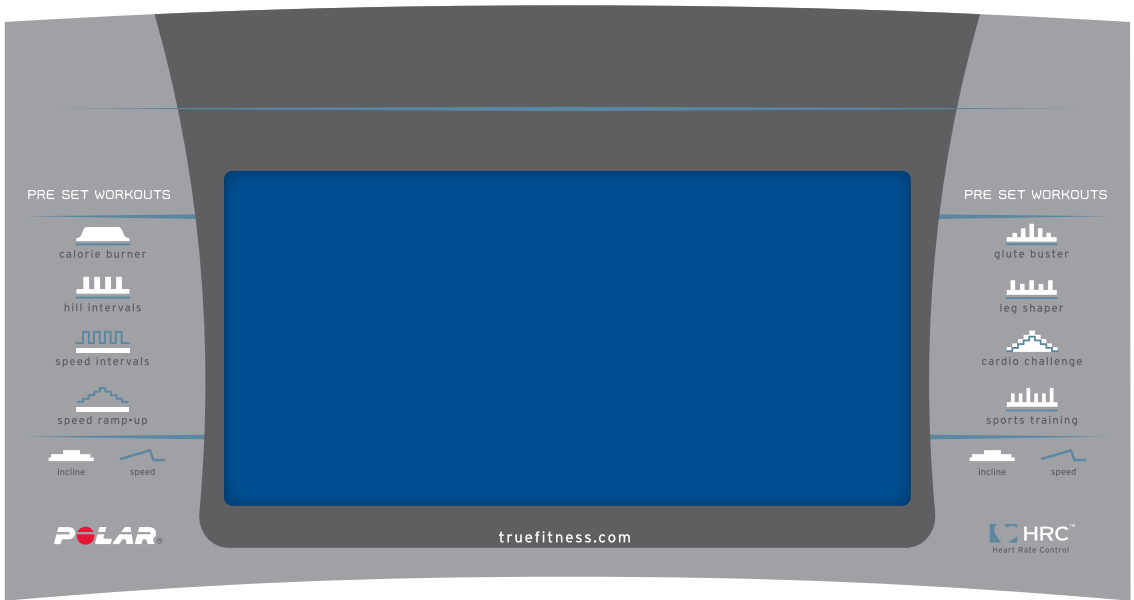
**Incline Up/Down**  
Adjusts incline. Also used to choose programs.

**Start/Quick Start**  
Starts the belt and begins the workout.

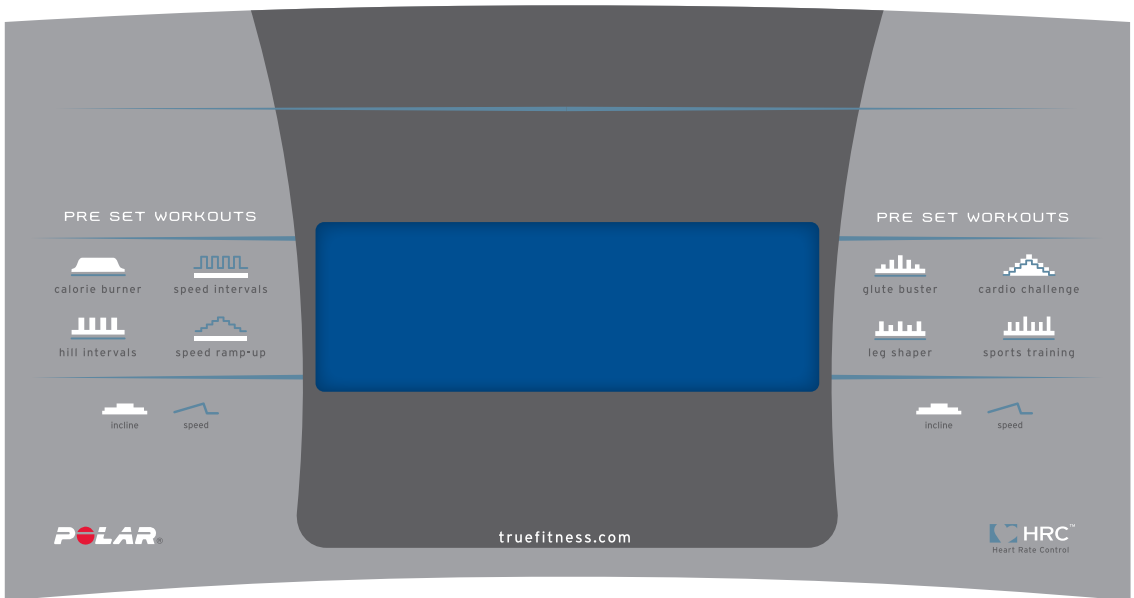
**Stop/Pause**  
Stops the belt and pauses workout. If held for 3 seconds, resets all workout information.

**Speed Slow/Fast**  
Adjusts speed in 0.1 mph increments. Also used to set weight and other workout parameters.

# ES9.0 DISPLAY



# ES7.0 DISPLAY



# HEART RATE CONTROL WORKOUTS

## IN THIS CHAPTER:

HRC Introduction

HRC Types & Workout Guide

Workout Setup

During Your Workout

Tips & How HRC Works

Examples and Cruise Control

Important Points About HRC

HRC Safety

Chapter 1: Basic Operation

Chapter 2: Console Operation

**Chapter 3: Heart Rate Control Workouts**

Chapter 4: User Workouts

Chapter 5: Gerkin Fitness Test

Chapter 6: RxHRC

Chapter 7: Fans

Chapter 8: Designing an Exercise Program

Chapter 9: Care and Maintenance

TRUE's heart rate control (HRC) workouts let the treadmill monitor your relative exercise intensity by way of your heart rate, then automatically adjust the workload to keep you at your target heart rate and thus your desired exercise intensity.

Your heart rate is a good measure of your body's exercise stress level. It reflects differences in your physical condition, how tired you are, the comfort of the workout environment, even your diet and emotional state. Using heart rate to control workload takes the guesswork out of your workout settings.



Consult your physician before using heart rate controlled workouts for advice on selecting a target heart rate range. Also, it is important to use the treadmill for several workouts in the manual mode while monitoring your heart rate. Compare your heart rate with how you feel to ensure your safety and comfort.

See Appendix A for a chart that may help you pick a target heart rate.

You need to wear a heart rate monitoring chest strap to use heart rate control. See the "Monitoring Your Heart Rate" section in Chapter 1 for a guide to proper usage. It is not recommended that you use the contact heart rate system for heart rate control workouts.



Various types of Heart Rate Control (HRC) are available on ES Series treadmills. This section may describe some types of HRC that your treadmill does not have.

***Time-based constant HRC:*** pick a target heart rate and exercise for an amount of time you select.




***Interval heart rate training:*** the treadmill alternates work intervals at your selected target heart rate with rest intervals that are at ½ workload. You set the length of both intervals.

- Interval HRC works just like time based constant heart rate control up through the first work interval.
- When your workout reaches your first rest interval, your workload is reduced by half, and kept at this rate throughout the rest interval.
- The next work interval is initially set at an average of the workloads in the previous work interval.

***Distance-based HRC:*** set a target heart rate and select one of four distances, just like running a road course: 2 miles, 4 miles, 5 kilometers, or 10 kilometers.

***Cruise Control:*** while in any workout, set your current heart rate as your target heart rate by pressing a single key.

FOUR BASIC  
TYPES  
OF HRC  
WORKOUTS



- 1 - Put on a Polar® or compatible transmitter chest strap as described in section Chapter 1.
- 2 - Press the  key until you reach your desired workout, then press  .
- 3 - Enter your workout parameters. This includes target heart rate, maximum treadmill speed, workout time or distance, and maximum incline. If you are using Interval HRC, pick your interval durations.
- 4 - Press  .
- 5 - **Warm up.** At the beginning of an HRC workout, the treadmill is in full Manual Control mode. Gradually increase your work level to slowly raise your heart rate to within 10 beats per minute (bpm) of your target heart rate.
- 6 - **Heart rate control stage.** Now the treadmill takes control of speed and incline, keeping your heart rate within a few bpm of your target. If you are using interval HRC, the treadmill alternates between work and rest intervals.
- 7 - **Cool-down.** At the end of your workout time or distance, the treadmill reduces workload by half and goes back into Manual Control mode, where you directly control your cool-down.







EASY STEPS  
TO A HRC  
WORKOUT



Your treadmill can remember more than one workout setup for a heart rate control workout. The ES9.0 and ES7.0 have 5 target, 5 interval, and 4 distance-based HRC setups. It stores each set of workout parameters under numbered workouts, for example, “Target HR 1,” “Target HR 2,” “Interval HRC 1,” etc.

You can select these in later workouts so you don’t have to re-enter your workout parameters, which tend to stay the same from workout to workout.

During workout setup, if you keep pressing , you will continue to scroll through the workout setup parameters. You can press  at any time to accept the current parameters and begin your workout.

- Pressing any key other than  or  will exit HRC mode.
- Adjust your target heart rate at any time during your workout by pressing , using the   keys as needed, and pressing  again. If you are lowering your target, you are limited to a 5 bpm change.
- The time and distance accumulated during warm up are not counted against your selected workout time or distance; those values start at zero when the treadmill reaches heart rate control mode. This time and distance are accumulated into the workout summary data, as is your cooldown exercise.

DURING  
WORKOUT  
SETUP

DURING  
YOUR  
WORKOUT



# TIPS AND HOW HRC WORKS

## CHAPTER THREE: HRC WORKOUTS

The treadmill operates in a manual control mode during the warm-up stage. You control both speed and incline. You may only increase speed and incline to the preset maximum values entered.

Increase speed and incline gradually to slowly increase your heart rate to within 10 bpm of your target. For best results, you should take about five minutes to get to that point.

It is important that you start at a low level of effort and gradually increase your work load over several minutes until you approach your target heart rate. This allows your body to adapt to your workout. Increasing work load gradually will allow you to enter the heart rate control stage without overshooting your target.

Warming up too fast may cause you to overshoot your target. If this occurs, it may take several minutes before the computer software can control your heart rate. You may overshoot and undershoot your target for several minutes until stable control is achieved.

To raise your heart rate in HRC mode, speed will always increase until maximum speed is attained, followed by incline (if incline is used in the workout).

To lower your heart rate in the HRC mode, incline will always decrease until zero incline is reached, followed by speed (if incline is used in the workout).


Speed changes are in 0.1 mph increments. Incline changes are in 0.5% incline increments. This is equal to between 0.10 and 0.15 METs.

TIPS ON THE  
WARM UP  
STAGE

HOW THE  
HRC SYSTEM  
CONTROLS  
YOUR HEART  
RATE

- 1 - A user who physically cannot walk over 2.5 mph can safely use heart rate control by entering maximum speed of 2.5 in an HRC workout.
- 2 - A runner can run up to a speed of 10 mph, without hills, by entering a maximum speed of 10 mph and a maximum incline of 0%.
- 3 - A walker enters a maximum speed of 4.0 mph and a maximum incline of 6%. The walker is limited to a maximum speed of 4.0 mph and incline will be used if required to elevate the heart rate up to a maximum of 6%.




### EXAMPLES OF HRC WORKOUTS

HRC Cruise Control is the simplest way to enter target heart rate training. While in manual or any program you can enter Target Heart Rate Control by simply pressing the  key. Your current heart rate will be set as the target.

### CRUISE CONTROL

For best results, you should be at least five minutes into your workout and warmed up. This will allow Cruise Control to more accurately control your heart rate.

Remember, you must be wearing a chest strap, and your heart rate should be displayed in the Heart Rate window.

To change your target heart rate press . Edit the target using  and press . If you are lowering your target, you are limited to a 5 bpm change. It is important to note that if you are raising your target, the speed and grade change safety limits (described next) may prevent the treadmill from raising your heart rate to your desired new target.



# EXAMPLES AND CRUISE CONTROL

## CHAPTER THREE: HRC WORKOUTS

If you enter the HRC stage below 5 mph, the speed you enter will be the maximum speed of your workout. If you like to walk at a maximum speed of 3.8 mph, you should enter HRC at 3.8 mph.

If you enter the HRC stage above 5 mph, you will have an additional 1 mph of speed. If you enter HRC at 6 mph, your maximum attainable speed in the HRC stage will be 7 mph.

If at any time you enter the HRC stage with incline, you will have an additional 4% of incline available in the HRC stage. If you enter the HRC stage at 1% incline, your maximum attainable incline will be 5%.

If you do not enter the HRC stage with incline, no incline will be available during the HRC stage of your workout. Only speed will be used to control your heart rate.

- 1 - Enter HRC at 3.5 mph and 4% incline to allow a maximum speed of 3.5 mph and 8% incline.
- 2 - Enter HRC at 4.2 mph and 6% incline to allow a maximum speed of 4.2 mph and 10% incline.

- 1 - Enter HRC at 6 mph and 0% incline to allow a maximum of 7 mph and 0% incline.
- 2 - Enter HRC at 5 mph and 2% incline to allow a maximum of 6 mph and 6% incline.

HOW CRUISE CONTROL DETERMINES YOUR EXERCISE INTENSITY

EXAMPLES OF WALKING WORKOUTS USING CRUISE CONTROL

EXAMPLES OF RUNNING WORKOUTS USING CRUISE CONTROL

The heart rate monitor transmitter strap provided with your treadmill should be worn directly against your skin at about one inch below the pectoral muscles/breast line. Women should be careful to place the transmitter below their bra line.

Some moisture is necessary between the strap and your skin. Sweat from your exercise works best, but ordinary tap water may be used prior to your workout if desired.

If the transmitter strap is adjusted or moved while exercising, communication may be temporarily affected.

If communication is lost for 30 seconds, the treadmill will automatically shut off.

The transmitter strap sends a low-level radio signal to the treadmill, so interference from other radio and sound waves (including everything from cordless telephones to loudspeakers) is possible. The good news is that interference is usually quite brief. If you continue to have intermittent heart rate display problems, consult your local service technician, as the transmitter strap batteries may be low.

Make sure you breath smoothly and regularly.

Talking during your workout usually causes heart rate spikes of five beats per minute or more, so avoid talking as much as possible.

Maintain a smooth walking or running motion.

A grounded outlet is critical for the HRC system to function properly. Use a dedicated 120 VAC, grounded outlet to help prevent interference.

IMPORTANT  
POINTS  
ABOUT  
HEART RATE  
CONTROL



# HRC SAFETY

## CHAPTER THREE: HRC WORKOUTS

Two users wearing the same kind of transmitter at the same time and in close proximity may cause false heart rate display readings.

Use only the transmitter provided with your TRUE HRC treadmill or a Polar® brand standard transmitter.

TRUE's Heart Rate Control is patented under USPTO #5,462,504.

If your heart rate exceeds your target by 12 beats, there will be a 30% MET reduction in workload to reduce your heart rate.

If your heart rate exceeds your target by 20 beats, the unit will automatically shut off as a precautionary measure. (Be cautious when selecting your target heart rate so the 20 beat variance will not exceed your maximum heart rate as determined by your physician).

TECHNICAL  
TIPS

HEART RATE  
CONTROL  
SAFETY  
FEATURES

# CUSTOM WORKOUTS

## IN THIS CHAPTER:

User Programs

Quick workout Keys

Favorites Key

Calorie Goal

Chapter 1: Basic Operation  
Chapter 2: Console Operation  
Chapter 3: Heart Rate Control Workouts  
**Chapter 4: Custom Workouts**  
Chapter 5: Gerkin Fitness Test  
Chapter 6: RxHRC  
Chapter 7: Fans  
Chapter 8: Designing an Exercise Program  
Chapter 9: Care and Maintenance

During a manually-controlled workout, ES Series treadmills always "record" the changes you make in speed or incline. ES treadmills can save up to three User Workouts

Note that this workout recording only takes place when you use the default manual mode settings; you cannot choose a target workout time or distance. Time must count up during your workout in order to be recorded.

Up to 36 changes in speed or incline can be recorded. Each speed/incline pair of changes must be separated by at least 30 seconds.

To save a manual workout, press  as you normally would to end your workout. Now press and hold  until the display shows Save User 1.

You can save your workout in User 1, or press  to select User 2 or User 3. Press and hold  to save the workout you have selected.

To use a User Workout that you have saved, simply select it from the list of workouts as described in "Pre-Set Workout Operation" in the previous section.

### HOW TO RECORD AND RUN USER PROGRAMS





## QUICK WORKOUT KEYS

### CHAPTER FOUR: CUSTOM WORKOUTS

Use these keys to set up your favorite training speeds.

While the treadmill is operating in manual mode, pressing and holding either the walk or run key will “save” that speed as that key’s operating speed. Pressing that key will change the treadmill speed to that speed.

**Note:** you can’t set a higher speed for the walk key than is set in the run key.

**Tip:** set the walk key speed first.

The walk+run key uses the speeds set in the walk and run keys in an interval workout pattern. It alternates every 60 seconds between the walk speed and the run speed.

Before you customize these keys, the walk key is set to 3 mph, and the run key is set to 6 mph.

**Caution:** just a single keypress of these keys will change the treadmill speed.

QUICK WORKOUT KEYS [WALK, WALK+RUN, RUN]

Under the Favorites you may select:

**Custom Workout:** pick the speed, incline, workout time, and duration of each segment of a custom workout.

**Custom Interval:** a shortcut to create a simple interval workout.

### Setting Up a Custom Workout

1. Press Favorites. At the Custom Workout prompt, press Enter. At the NEW PROG YES? prompt, select YES.
2. Enter desired workout time.
3. Enter duration of first workout segment, between 30 and 90 seconds.
4. Enter the speed of the first workout segment.
5. Enter the incline of the first workout segment.
6. Display will show how much time is remaining.
7. Repeat steps 3 through 6 until no time is remaining.

### Using a Custom Workout

1. Press Favorites. At the Custom Workout prompt, press Enter. At the NEW PROG YES? prompt, change choice to NO.
2. At START WORKOUT prompt, press Enter.
3. Press Start.
4. During the workout, when there is 30 seconds to go in a segment, the Time Remaining readout will display the amount of time remaining in the current workout segment.
5. Pressing Start will skip to the next workout segment.
6. Pressing Enter will add 15 seconds to the current workout segment.



### Setting Up a Custom Interval Workout

1. Press Favorites until you see the Custom Workout prompt, then press Enter. At the NEW PROG YES? prompt, select YES.
2. Enter desired workout time.
3. Enter duration of rest workout segment, between 30 and 90 seconds.
4. Enter the speed of the rest workout segment.
5. Enter duration of work workout segment, between 30 and 90 seconds.
6. Enter the speed of the work workout segment.

FAVORITES KEY

Calorie goal allows you to choose the number of calories you wish to burn, and the treadmill will calculate the required speed and incline to attain this goal, including a 3-minute warm up and 3-minute cool down. For safety and comfort reasons, you set a maximum speed.

**Important Note About Calorie Usage:** The treadmill estimates your calorie usage using formulas from the industry-standard Guidelines for Exercise Testing and Prescription, from the American College of Sports Medicine. Variations between individuals make these formulas accurate to only about plus or minus 20%.

Further error may occur because of the walking and running transition. The treadmill assumes you are walking at 4 mph or slower. If you are actually jogging at speeds lower than 4 mph, the treadmill will greatly underestimate your calorie usage.

### Setting Up a Calorie Goal Workout

1. Press Weight Loss until you see the Calorie Goal Workout prompt, then press Enter.
2. Adjust Weight and enter workout time. This workout time includes a 3-minute warmup and a 3-minute cooldown.
3. Enter the maximum speed you want the treadmill to never exceed during the calorie goal workout. Make sure this is a comfortable speed for you. Note: this speed will not necessarily ever be attained during the workout. See Step 8 below for more information. calorie count may not be exactly as you specified, but it should be within 1%.
4. Enter calorie goal.



## CALORIE GOAL

### CHAPTER FOUR: CUSTOM WORKOUTS

5. If your calorie goal exceeds the ability of the treadmill to attain, you will be re-prompted to either reduce your calorie goal or increase your maximum speed.
6. When your calorie goal is within the abilities of the treadmill, press Start.
7. There is a 3-minute warmup at either 2 mph or your maximum speed, whichever is less.
8. After the warmup, the treadmill will immediately speed up and change incline to reach the exercise intensity required to attain your calorie goal. For your comfort and safety, the treadmill attempts to keep you at a walking speed of 3 mph or less, using incline to reach the necessary exercise intensity.
9. There is a 3-minute cooldown at the end of your workout time.

Because of some time lag in changes in incline and speed, the end calorie count may not be exactly as you specified, but it should be within 1%.

## CALORIE GOAL

# GERKIN FITNESS TEST

## IN THIS CHAPTER:

Using the Gerkin Fitness Test  
Accuracy of the Gerkin Fitness Test

Chapter 1: Basic Operation  
Chapter 2: Console Operation  
Chapter 3: Heart Rate Control Workouts  
Chapter 4: Custom Workouts  
**Chapter 5: Gerkin Fitness Test**  
Chapter 6: RxHRC  
Chapter 7: Fans  
Chapter 8: Designing an Exercise Program  
Chapter 9: Care and Maintenance

One way to measure your overall fitness is to take a Gerkin fitness test. Named after the Arizona researcher who designed this test, this submaximal treadmill test (submaximal means you work below maximum effort) is used to predict VO<sub>2</sub> max: the volume of oxygen you can consume while exercising at your maximum capacity. This particular test has gained great popularity in the firefighter and law enforcement community. Like most fitness tests, it is classified as a graded exercise test (GXT). The test is stopped at the point your heart rate reaches 85% of your age-predicted maximum.

Select the Gerkin test under the Advanced Options key. Enter your age, which is used to calculate your test termination point.

The Gerkin protocol starts at 4.5 miles per hour at a 0% incline. It then increases speed or incline every 60 seconds. For example, at the seven-minute mark, the speed increases to 6 miles per hour while the incline raises to 8%.

When your heart rate reaches 85% of your age-predicted maximum, the test waits for your heart rate to exceed the target for 15 seconds, then terminates the test.

The version of the Gerkin Protocol that TRUE Fitness uses in its exercise machines is the new equation of  $205.8 - 0.685 * \text{age}$ . To better understand why we selected this method over the outdated "220 - age" maximal heart rate equation, you can review the scientific paper in Journal of Exercise Physiology, a PDF document located at <http://asep.org/Documents/Robergs2.pdf>

USING THE  
GERKIN TEST



# ACCURACY OF THE GERKIN TEST

## CHAPTER FIVE: GERKIN FITNESS TEST

The scientific journal, Occupational Medicine, published a study in 2004 on the accuracy of the Gerkin test. The conclusion:

*“The Gerkin treadmill protocol overpredicts VO<sub>2</sub>max in healthy men and women and, therefore, should not be used for predicting VO<sub>2</sub>max in individual firefighters, particularly if VO<sub>2</sub>max is a criterion for inclusion or exclusion from duty. At this time, a valid treadmill running test is needed for predicting the VO<sub>2</sub>max value of individual firefighters.”*

However, for the fitness enthusiast who is interested in monitoring their fitness level, the Gerkin test can be used to measure progress over time.

ACCURACY  
OF THE  
GERKIN TEST



# RXHRC

## IN THIS CHAPTER:

RxHRC Setup  
Workout Suggestion

Chapter 1: Basic Operation  
Chapter 2: Console Operation  
Chapter 3: Heart Rate Control Workouts  
Chapter 4: Custom Workouts  
Chapter 5: Gerkin Fitness Test  
**Chapter 6: RxHRC**  
Chapter 7: Fans  
Chapter 8: Designing an Exercise Program  
Chapter 9: Care and Maintenance

RxHRC Creates a 21- to 24-week training program with a progressive increase in workout intensity and duration. This program is based on a few simple parameters from you, the user, including: age, resting heart rate, current activity level, and fitness goal. RxHRC workouts typically range from 15 minutes at the beginning of a training program to 40 minutes by week 21.

If you are a new user, you will be asked a few personal questions: age, resting heart rate, current activity level, and fitness goal.

***How to measure your resting heart rate:*** in general, sit very still, gentle breathing, no distractions, and no talking. Best results come first thing in the morning, with no food or caffeine intake for at least three hours. Measure with your fingers against well-known pulse points like your wrist or your neck, and count for at least 30 seconds, then convert to a beats-per-minute number.

***Current activity level:*** choose from not active, moderately active (20 – 60 minutes of moderate to vigorous activity per week), and very active (more than 60 minutes of moderate to vigorous activity per week). See workout suggestion section for how this selection affects your training program as follows:

If you chose “inactive” as your current activity level, the training program will be a 24-week program recommending three workout days per week for the first three weeks, four days per week for the next 13 weeks, and five days per week for the final eight weeks, followed by a four-day-per-week maintenance program.

If you chose “moderately active” or “very active” as your current activity level, the training program will be a 21-week program recommending four days per week for the first 13 weeks, and five days per week for the final eight weeks, followed by a four-day-per-week maintenance program.

***Fitness goal:*** choose from easy improvement, moderate improvement, or aggressive improvement.

***Creating the Training Program:*** RxHRC now creates and saves your entire training program.

RxHRC does not keep track of how often you actually work out. If you train less often than suggested, your training program will require more total weeks.

***Workout Suggestion:*** Each time you select RxHRC after you have created your training program, RxHRC suggests your next workout, recommending a target heart rate and a workout length.

***Adjusting the suggestion:*** You may choose the suggested workout, or you may skip “back” to an easier workout, or even skip “forward” to a more challenging workout. RxHRC remembers the last workout you complete, and resets its internal pointer to that spot. The next suggested workout is always the workout after the last workout you completed, as determined by the 24-week training program.

***Workouts Stay the Same for a Week:*** RxHRC generates workouts to be the same for a week, so you will notice workouts are the same three to five in a row.

***Using HRC for each workout:*** Since all RxHRC workouts are heart rate controlled workouts, you set up each workout just like you do a normal RxHRC workout. RxHRC will suggest settings for your maximum speed and grade, but you may adjust these. Like any RxHRC workout, RxHRC remembers your parameters for your next workout, and you may leave them the same or readjust them.

# FANS

## IN THIS CHAPTER:

Fans

Chapter 1: Basic Operation  
Chapter 2: Console Operation  
Chapter 3: Heart Rate Control Workouts  
Chapter 4: Custom Workouts  
Chapter 5: Gerkin Fitness Test  
Chapter 6: HRC Planner  
**Chapter 7: Audio and Fan Accessories**  
Chapter 8: Designing an Exercise Program  
Chapter 9: Care and Maintenance

The fans have two speeds plus off. The default is medium speed.

FANS ON  
ES9.0



# DESIGNING AN EXERCISE PROGRAM

## IN THIS CHAPTER:

The F.I.T. Concept Defined  
F.I.T. Concept Overview  
Utilizing the F.I.T. Concept  
Beginning Your F.I.T. Program  
Establishing and Maintaining Fitness  
Weight & Sports Training Programs

Chapter 1: Basic Operation  
Chapter 2: Console Operation  
Chapter 3: Heart Rate Control Workouts  
Chapter 4: Custom Workouts  
Chapter 5: Gerkin Fitness Test  
Chapter 6: RxHRC  
Chapter 7: Fans  
**Chapter 8: Designing an Exercise Program**  
Chapter 9: Care and Maintenance

The workout portion of your exercise program consists of three major variables: Frequency, Intensity, and Time.

### **Frequency: How Often You Exercise**

You should exercise three to five times a week to improve your cardiovascular and muscle fitness. Improvements are significantly smaller with less frequent exercise.

### **Intensity: How Hard You Exercise**

Intensity of exercise is reflected in your heart rate. Exercise must be sufficiently rigorous to strengthen your heart muscle and condition your cardiovascular system. Only your doctor can prescribe the target training heart range appropriate for your particular needs and physical condition.

Start with exercise that stimulates you to breathe more deeply.

Alternate days of moderate and easy exercise to help your body adapt to new levels of exertion without unnecessary strain.

If you are just beginning an exercise program, you may be most comfortable walking at a speed of 1-2 mph. As you use your treadmill regularly, higher speeds may be more comfortable and more effective.

Inability to maintain a smooth, rhythmic motion suggests that your speed and/or elevation may be too great.

If you feel out of breath before you have exercised 12 minutes, you are probably exercising too hard.

As your fitness level improves, you will need to increase your workout intensity in order to reach your target heart rate. The first increase may be necessary after two to four weeks of regular exercise. Never exceed your target heart rate zone. Increase the speed and/or incline on the treadmill to raise your heart rate to the level recommended by your doctor. The incline feature can be used to greatly increase the workload without increasing speed.

### **METs**

One MET is the amount of energy your body uses when you're resting. If a physical activity has an equivalent of 6 METs, its energy demands are 6 times that of your resting state. The MET is a useful measurement because it accounts for differences in body weight. See *Appendix C* for more details.

### **Time: How Long You Exercise**

Sustained exercise conditions your heart, lungs, and muscles. The longer you are able to sustain exercise within your target heart range, the greater the aerobic benefits.

To begin, maintain two to three minutes of steady, rhythmic exercise and then check your heart rate.

The initial goal for aerobic training is 12 continuous minutes.

Increase your workout time approximately one or two minutes per week until you are able to maintain 20-30 continuous minutes at your training heart rate.



The F.I.T. concept and chart are designed to help you begin a program tailored to your needs. You may wish to keep an exercise log to monitor your progress.

USING  
THE F.I.T.  
CONCEPT

You can get valuable fitness benefits from your TRUE treadmill. Using the treadmill regularly may increase the ability of your heart and lungs to supply oxygen and nutrients to exercising muscles over an extended period of time. The treadmill will also help you develop added muscle endurance and balanced strength throughout your body.

YOUR  
FITNESS  
PROGRAM

Calculate your maximum heart rate as a first step in developing your fitness program. The formula to calculate average maximum heart rate for one minute is  $220$  beats per minute minus your age. To find your pulse, locate a vein on your neck or inside your wrist, then count beats for ten seconds, then multiply by six. (See chart in *Appendix A*.)

DETERMINING  
YOUR NEEDS

It's also important to know your target training zone or target heart rate. The American Heart Association (AHA) defines target heart rate as 60-75 percent of your maximum heart rate. This is high enough to condition, but well within safe limits. The AHA recommends that you aim for the lower part of the target zone (60 percent) during the first few months of your exercise program. As you gradually progress you can increase your target to 75 percent. According to the AHA, "Exercise above 75 percent of the maximum heart rate may be too strenuous unless you are in excellent physical condition. Exercise below 60 percent gives your heart and lungs little conditioning."

In addition to monitoring your heart rate as you exercise, be certain of how quickly your heart rate recovers. If your heart rate is over 120 beats per minute five minutes after exercising, or is higher than normal the morning after exercising, your exertion may be too strenuous for your current level of fitness. Reducing the intensity of your workout is recommended.

The age-adjusted target heart rates indicated in the chart in *Appendix A* reflect averages. A variety of factors (including medication, emotional state, temperature, and other conditions) can affect the exercise heart rate appropriate for you.

**Warning:** Consult your doctor to establish the exercise intensity (target heart rate zone) appropriate for your age and condition before beginning any exercise program.

### **Warm-Up: Slow and Deliberate Exercise**

You are not warmed up until you begin to perspire lightly and breath more deeply. Warming up prepares your heart and other muscles for more intense exercise and helps you avoid premature exhaustion. Begin each workout by walking even if you plan to run. Start slowly, exploring different speeds until you can comfortably sustain your speed.

A good suggestion is a minimum of three minutes. Perspiration on your brow is a good indicator of a thorough warm-up. The older you are, the longer your warm-up period should be.

## **Workout: Brisk and Rhythmic Exercise**

The workout trains and conditions your heart, lungs, and muscles to operate more efficiently. Increase exercise in response to your heart rate to train and strengthen your cardiovascular system. Concentrate on moving your arms and legs smoothly. Walk naturally and avoid jerking motions that can cause pulled muscles, sprained joints, and loss of balance.

## **Cool-Down: Slow and Relaxed Exercise**

Cooling down relaxes your muscles and gradually lowers your heart rate. Slowly reduce your workload until your heart rate is below 60 percent of your maximum heart rate. The cool down should last at least five minutes, followed by some light stretching to enhance your flexibility.

## **Beginning a Fitness Program**

If you cannot sustain 12 continuous minutes in your target heart rate zone, exercise several times a day to get into the habit of exercising.

Try to reach and maintain 60-65 percent of your maximum heart rate. Alternate exercise with periods of rest until you can sustain 12 continuous minutes of exercise at 60-65 percent of your maximum heart rate.

Begin exercising in three to five minute sessions.



If you can sustain 12 but not 20 continuous minutes of exercise in your target heart rate zone:

Exercise three to five days a week.

Rest at least two days per week.

Try to reach and maintain 60-75 percent of your maximum heart rate with moderate rhythmic exercise.

Begin with 12 continuous minutes. Increase your time by one to two minutes per week until you can sustain 20 continuous minutes.

If you can sustain 20 continuous minutes in your target heart rate zone, begin to increase the length and intensity of your workout:

Exercise four to six days a week or on alternate days.

Try to reach and maintain 70-85 percent of your maximum heart rate with moderate to somewhat hard exercise.

Exercise for 20-30 minutes.

Consistent aerobic exercise will help you change your body composition by lowering your percentage of body fat. If weight loss is a goal, combine an increase in the length of your workouts with a moderate decrease in caloric intake. For weight control, how long and how often you exercise is more important than how hard you exercise.

Exercise four to five times a week.

ESTABLISHING  
AEROBIC  
FITNESS

MAINTAINING  
AEROBIC  
FITNESS

MANAGING  
WEIGHT

Try to reach and maintain 60-75 percent of your maximum heart rate with moderate exercise.

Exercise for 30-45 minutes at 60-65 percent of your target heart rate.

***Here are some tips to achieving your weight management goal:***

Consume most of your dietary calories at breakfast and lunch, and eat a light dinner. Do not eat close to bedtime.

Exercise before meals. Moderate exercise will help suppress your appetite.

Take exercise breaks throughout the day to help increase metabolism (calorie expenditure).

***When you are training to improve strength and performance:***

Exercise four to five days a week. Alternate exercise days and intervals of hard to very hard exercise with easy to moderate exercise.

Exercise for 30 minutes or longer.

***Warning:*** these strategies are intended for average healthy adults. If you have pain or tightness in your chest, an irregular heartbeat, shortness of breath or if you feel faint or have any discomfort when you exercise, ***stop!*** Consult your physician before continuing. Remember, every workout should begin with a warm-up and finish with a cool-down.

# CARE AND MAINTENANCE

IN THIS CHAPTER:

Lubrication and Cleaning  
Treadbelt Adjustment  
Treadbelt Tension

Chapter 1: Basic Operation  
Chapter 2: Console Operation  
Chapter 3: Heart Rate Control Workouts  
Chapter 4: Custom Workouts  
Chapter 5: Gerkin Fitness Test  
Chapter 6: RxHRC  
Chapter 7: Fans  
Chapter 8: Designing an Exercise Program  
Chapter 9: Care and Maintenance



# LUBRICATION AND CLEANING

## CHAPTER NINE: CARE AND MAINTENANCE

Your TRUE treadmill is constructed of quality materials and manufactured to provide many years of faithful service. Simple routine cleaning and a preventive maintenance program will extend the life of your treadmill.

***To prevent electrical shock, be certain the treadmill is turned off and unplugged from the electrical outlet before performing any cleaning or routine maintenance.***

For average use of your treadmill, TRUE recommends you lubricate under the treadbelt once per year. For heavy use, which is more than 10 hours per week, TRUE recommends lubricating every three months.

The TRUE treadmill you have purchased is designed with a premium orthopedic belt. This belt provides additional comfort and cushioning. Please note that your exercise regimen/activity may require you to lubricate the belt with approved TRUE Fitness lubrication more frequently than a traditional belt for premium performance.

Please contact your dealer to obtain the proper lubricants.

***Daily:*** Perspiration should be wiped from the control console and treadmill surfaces after your workout.

***Weekly:*** You should wipe down your treadmill once a week with a water dampened, soft cloth. Be careful not to get excessive moisture between the edge of the overlay panel and the console, as this might create an electrical hazard or cause the electronics to fail.

***Important: do not clean or wipe under the running belt.***

TREADBELT  
LUBRICATION

REGULAR  
CLEANING



# TREADBELT ADJUSTMENT

## CHAPTER NINE: CARE AND MAINTENANCE

*Monthly:* Clean dust and dirt that might accumulate under and behind your treadmill once a month. Small rubber particles from the soles of walking shoes will accumulate alongside the belt and also behind the unit.

REGULAR  
CLEANING

Expert service and maintenance at a reasonable cost are available through your factory-trained, authorized TRUE dealer. The dealer maintains a stock of repair and replacement parts and has the technical knowledge to meet your service needs.

EXPERT  
SERVICE

Your treadmill's running belt has been properly aligned at the factory. However, when the treadmill is used on an uneven surface, please follow these instructions:

TREADBELT  
ADJUSTMENT

- 1 - Stand beside the treadmill, place the safety key onto the control panel and follow operating instructions for running the treadmill at 5 mph.
- 2 - If the belt is off-center to the right, turn the left roller adjustment bolt counter clock-wise 1/4 turn. If the belt is off-center to the left, turn the left roller adjustment bolt 1/4 turn clockwise.
- 3 - Let the machine run for several minutes to check the alignment. (Belt alignment does not need to be perfect). If more correction is needed, turn the adjustment bolt 1/4 turn and check again.





# TREADBELT TENSION

## CHAPTER NINE: CARE AND MAINTENANCE

Turn both rear roller adjustment bolts counter-clockwise until treadbelt just begins slipping when walking on it, then turn both rear roller adjustment bolts clockwise in equal quarter turn increments until treadbelt stops slipping.

**Note:** Be sure to run on treadbelt to ensure that the treadbelt does not slip while under load.



# SYMPTOM/SOLUTION GUIDE

## CHAPTER NINE: CARE AND MAINTENANCE

SYMPTOM	CAUSE	SOLUTION
Circuit breaker on treadmill trips when the power cord is plugged into wall.	A. Damaged motor	Service required
	B. Damage or defective motor power supply board	Service required
	C. Damaged motor control circuit board	Service required
Circuit breaker on treadmill trips when inputting speed and starting	D. Restricted belt or flywheel	Check and remove obstruction or call dealer
	E. Treadbelt over tensioned	See adjustments in Assembly Guide
Computer display LED's do not illuminate.	A. No power to treadmill	Restore power at electrical outlet or reset circuit breaker if in "on/off" position.
	B. Circuit breaker trip	Reset Circuit Breaker
	C. Upper wire harness not connected or completely connected.	Service required
Incline Motor and tread motor will not turn on	A. Upper wire harness damaged or not connected or completely connected	Service required
Incline motor does not operate but the treadbelt moves	A. Incline wire harness damaged or not connected	Service required
Scrambled digits on computer LED's	A. Damaged computer board	Service required
	B. Upper wire harness damaged or partially connected	Service required
Squeaking noise from motor while using the treadmill	A. Poly V-belt slipping	Service required
	B. Motor brush noise excessive	Service required



# SYMPTOM/SOLUTION GUIDE

## CHAPTER NINE: CARE AND MAINTENANCE

SYMPTOM	CAUSE	SOLUTION
Treadbelt tracks left to right	A. Uneven floor	Move treadmill to even surface or level with shims. See Adjustment section.
	B. Rear roller not properly adjusted	See Adjustment section.
Treadmill trips household circuit breaker	A. Defective breaker	Replace breaker
	B. Circuit too small	Use 20 amp circuit
	C. Circuit over-loaded	Remove the other electrical appliances on same circuit
	D. May trip GFI circuit.	Have circuit checked by electrician.
Treadbelt feels unsmooth, jerks intermittently	A. Object between belt and deck	Remove object between belt and deck
	B. Object under belt	Remove object from under belt
	C. Loose tread motor drive belt	Service required
	D. Loose treadbelt tension	See Adjustment section.



# ERROR CODES

## CHAPTER NINE: CARE AND MAINTENANCE

<b>E1:INCLINE</b>	Incline moving when not commanded to.
<b>E1:RANGE</b>	Difference between zero position and maximum incline not sufficient.
<b>E1:STALL</b>	Incline not moving when commanded to.
<b>E2:OVERSPEED</b>	This error occurs when an acceleration of greater than 2.1 mph occurs. Error cleared by turning off power switch then turning it back on.
<b>E2:CAL</b>	Treadmill cannot achieve target speed. Re-calibrate treadmill.
<b>E3:RECAL</b>	This error occurs when a data error is detected in the EEPROM. Replace the control panel.
<b>E4:KEY STK [stop]</b>	Caused by pressing and holding the stop key for more than five seconds.
<b>E5:SENSOR</b>	This message is displayed when there is no speed feedback.

ERROR  
CODES

*All errors require service by a qualified technician in order to clear the error, turn power off and back on again.*



# SERVICE MESSAGES

## CHAPTER NINE: CARE AND MAINTENANCE

The following service messages will be displayed as they occur, as well as for the subsequent six safety key insertions. These messages will be displayed until a key is pressed. Every time these messages are displayed, a tone will sound twice.

**S1:LUBE** This message is displayed when lubrication of the deck is recommended.

**S2:CLEAN** This message is displayed every 500 miles. Prompt to clean treadmill.


**S3:MOTOR** This message is displayed every 2500 hours. Prompt to check motor brushes.

DIAGNOSTICS  
SERVICE  
MESSAGES

# TARGET HEART RATE CHART

A GUIDE TO HELP YOU PICK AN  
INITIAL TARGET HEART RATE

# APPENDIX A TARGET HEART RATE CHART

 <b>TARGET HEART RATE CHART</b>			
AGE	60%	75%	85%
20	120	150	170
25	117	146	166
30	114	143	162
35	111	139	157
40	108	139	153
45	105	131	149
50	102	128	145
55	99	124	140
60	96	120	136
65	93	116	132
70	90	112	128
75	87	109	123
80	84	105	119
85	81	101	115

<b>WEIGHT LOSS RANGE</b>
<b>AEROBIC TRAINING RANGE</b>
<b>INCREASED PERFORMANCE RANGE</b>

values from ACSM guidelines

# SPECIFICATIONS





## SPECIFICATIONS

	ES9.0	ES7.0
Motor	TRUE 4hp DC Quiet-Drive	TRUE 4hp DC Quiet-Drive
Commercial Frame	11-Guage Heavy Duty Welded Steel	11-Guage Heavy Duty Welded Steel
HRC Cruise Control	YES	YES
HRC Workouts	14	14
Workouts	15 Preset, 2 Custom, 1 Custom Interval	17
User Defined	YES-3	YES-3
Footprint	82”L x 33”W (208cm x 84 cm)	82”L x 33”W (208cm x 84 cm)
Running Surface	60”L x 22”W (152 cm x 56 cm)	60”L x 22”W (152 cm x 56 cm)
Maximum User Weight	400 lbs	400 lbs.
Soft Select	YES	YES
Incline	-3% TO 15%	0%-15%
Speed	0-12 MPH (0-19 kph)	0-12 MPH (0-19 kph)
Warranty	Frame (Lifetime), Motor (Lifetime), Parts (10 yrs), Labor (2 yrs)	Frame (Lifetime), Motor (Lifetime), Parts (10 yrs), Labor (2 yrs)

# BIBLIOGRAPHY

REFERENCES AND SELECTED READINGS

American College of Sports Medicine, ACSM's *Guidelines for Exercise Testing and Prescription*. 6th edition. Philadelphia: Lippincott Williams & Wilkins, 2000.

Feynman, Richard P., *The Feynman Lectures on Physics*. Original edition. Boston: Addison Wesley, 1970. ISBN: 0-201-02115-3.

Huszar, Robert J., *Basic Dysrhythmias*. Third Edition. St. Louis, Missouri: Mosby, 2002.

McArdle, William D., Katch, Frank I., and Katch, Victor L., *Exercise Physiology*, 5th edition. Baltimore: Lippincott Williams & Williams, 2001.

McMahon, Thomas A. and Bonner, John T., *On Size and Life*. New York: W. H. Freeman, 1985. ISBN: 0-716-75000-7.

Pollack, Michael L., Gaesser, Glenn A., Butcher, Janus D., et al. (1998) The recommended quantity and quality of exercise for developing and maintaining cardiorespiratory and muscular fitness in healthy adults. (The ACSM Position Stand on Fitness.) *Medicine and Science in Sport and Exercise*, 30(6): 975-991.

URL:

<[ipsapp006.lwwonline.com/content/getfile/2320/20/1050/fulltext.htm](http://ipsapp006.lwwonline.com/content/getfile/2320/20/1050/fulltext.htm)>

*Other ACSM position stands are found here:*

<[www.acsm-msse.org](http://www.acsm-msse.org)>

Robergs, Robert A. and Landwehr, Roberto. (2002) The Surprising History of the "HRmax = 220 - age" Equation. *Journal of Exercise Physiology*, 5(2). ISSN 1097-9751.2

Article URL:

<<http://www.asep.org/Documents/Robergs2.pdf>>

Journal URL:

<<http://www.asep.org/FLDR/JEPhome.htm>>

Starr, Robert M. and Doyle, Jay D., *550 ZTX Owner's Guide*, Colophon edition. O'Fallon: True Fitness Technologies, 2003.

Swain, David P. and Leutholtz, Brian C., *Metabolic Calculations - Simplified*. Baltimore: Williams & Wilkins, 1997.

Tufte, Edward R, *Visual Explanations*. Chesire, Connecticut: Graphics Press, 1997.

Whitmore, Jack H. and Costill, David L., *Physiology of Sport and Exercise*. 2nd edition. Champaign, Illinois: Human Kinetics, 1999.

Whitt, Frank R. and Wilson, David G., *Bicycling Science*. Cambridge: The MIT Press, 1982.



Founded 1981

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