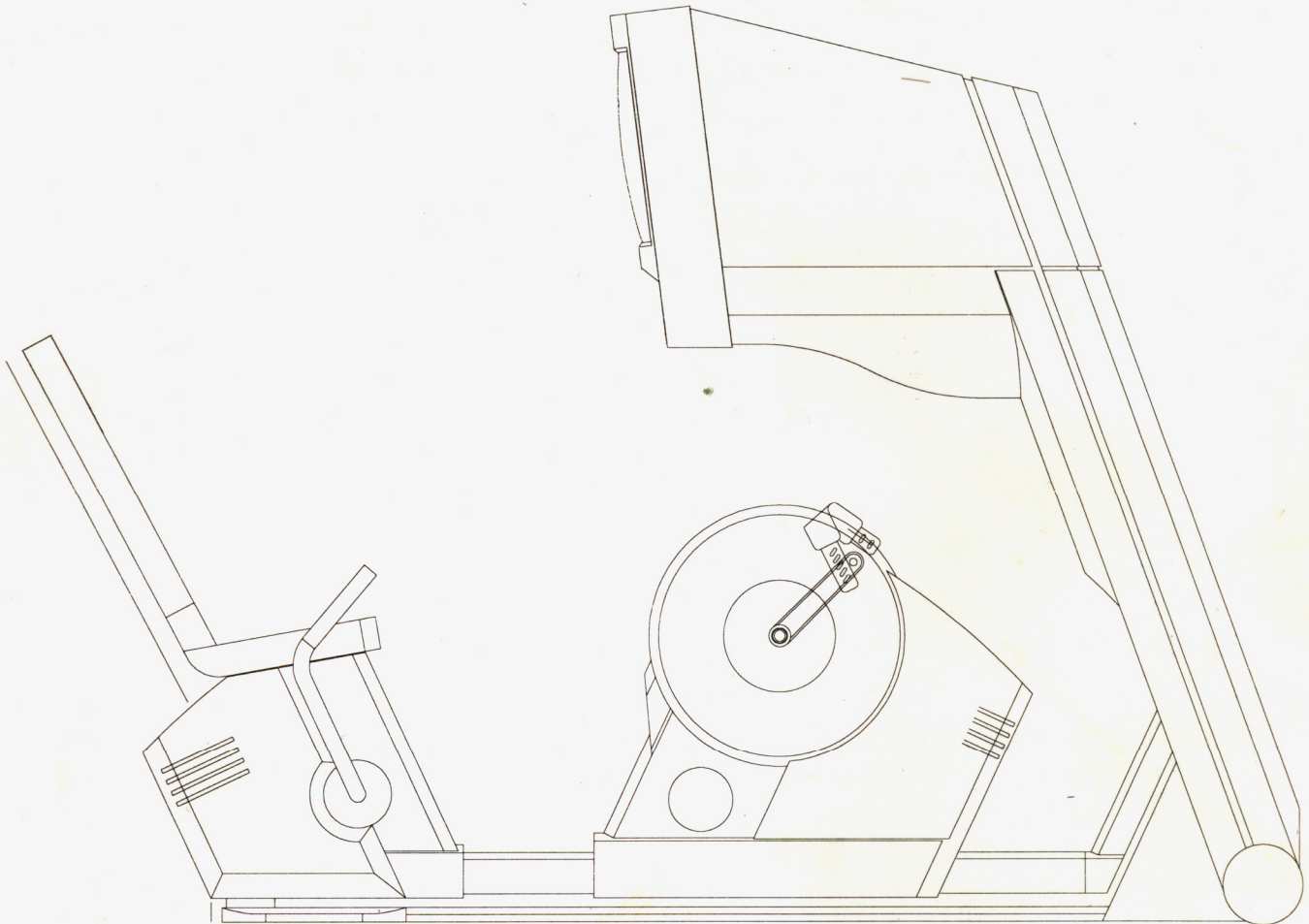


VRBike

MADE IN U.S.A.

OWNERS MANUAL



Tectrix

TECTRIX FITNESS EQUIPMENT

68 FAIRBANKS
IRVINE, CA 92718
(800) 767 - 8082

SAVE THESE IMPORTANT SAFETY INSTRUCTIONS

1. Read all instructions before using this equipment.
2. **DANGER:** DISCONNECT FROM SUPPLY CIRCUIT BEFORE OPENING.
AVERTISSEMENT : DECONNECTER DU CIRCUIT D' ALIMENTATION AVANT D' OUVRIIR.
3. Unplug all electrical appliances before cleaning and after use.
4. Close supervision is necessary when this equipment is used by, or near children, or disabled persons.
5. Use this equipment only for the intended use as described in this manual.
6. Never operate equipment that has a damaged power cord or plug.
7. Never drop or insert any object into any opening.
8. Do not use outdoors.
9. To disconnect, switch off power switch (on the front of the equipment), then remove plug from outlet.

IMPORTANT GROUNDING INSTRUCTIONS

WARNING:

CONNECT THIS EQUIPMENT TO A PROPERLY GROUNDED OUTLET

ATTENTION -

BRANCHER CET EQUIPEMENT UNE PRISE CORRECTEMENT

RELIÉE À LA TERRE

This equipment is for use on a nominal 120-volt circuit and has a grounding plug that looks like the plug illustrated in 'FIGURE A' below. This equipment *must* be grounded. No adapter should be used. It has been supplied with a cord having an equipment grounding conductor and plug. This plug must be plugged *only* into a properly installed grounded outlet. Failure to do so can result in the risk of electrical shock. Do not modify the plug provided with this product — if it does not fit, have a qualified electrician install the proper style outlet.

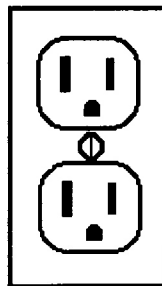
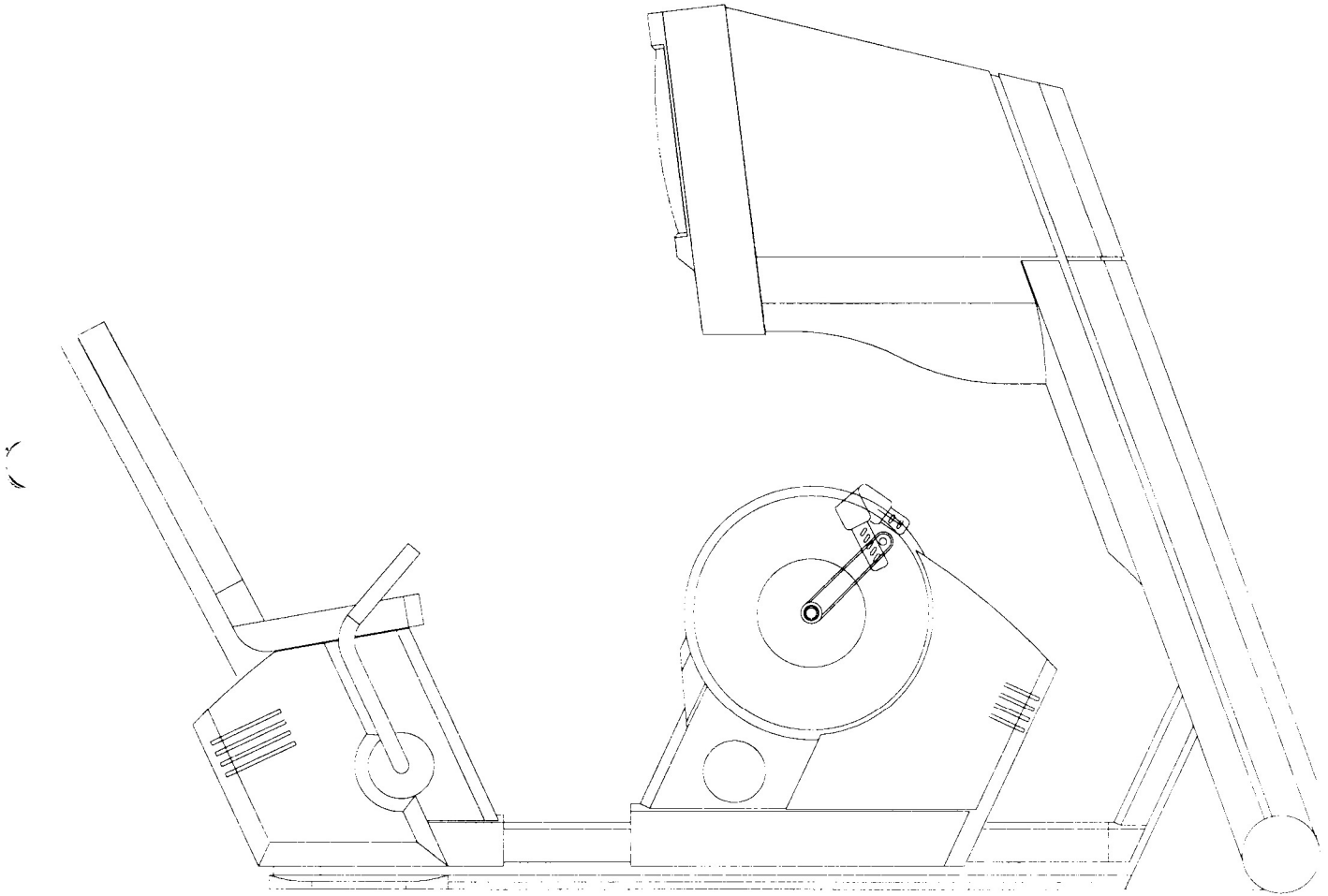


FIGURE A - Grounded Outlet

VRBike



This product is intended for commercial use.

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1. General Information

The VRBike is a revolutionary product which combines state-of-the-art virtual reality technology with top-quality fitness equipment. The result is a superior workout and a whole lot of fun.

This manual will help you set up and use your VRBike. Once the bike is set up, all you need to do is "sit down and pedal"; the computer will do the rest. On-line help is provided at the touch of the **HELP** button (located on the control panel below and to the right of the screen).

State-of-the-art software

The computer-generated environment shown on the screen is called a *virtual world* and is generated by a computer program stored on a CD-ROM disk. Changing the virtual world in your VRBike is as simple as changing the CD-ROM disk.

Some CD-ROM disks will contain programs that simulate riding a bicycle and will be familiar to anyone who has ridden a bike; for instance, a higher gear makes it harder to pedal and makes the bike move faster, pedaling uphill is harder than downhill, the air blows harder as you travel faster and so on. Each new CD-ROM disk will offer an exciting virtual world to explore.

Other virtual worlds may put you in a pedal powered submarine exploring the depths of the ocean or in a space ship flying to Mars. In the different simulations, some of the statistics displayed on the screen will vary. For example, your speed may be measured in knots for a submarine or distance measured in light-years for a space ship.

Some things will never change. The VRBike is a recumbent exercise bike which tilts from side to side and has a video monitor. Likewise, exercise information will always be the same; a calorie is a calorie and a ten minute workout will always take ten minutes.

Sophisticated, hi-tech hardware

The VRBike is a sophisticated piece of equipment. Some of the features that distinguish it from a traditional exercise bike include:

- a computer processor (an Intel® 486 PC or pentium®)
- a CD-ROM drive
- a 19" color CRT monitor
- 16-bit digital stereo sound
- a variable speed fan, and
- an integrated tilt steering mechanism.

All of the VRBike's components are designed to withstand the rigors of a health club environment. As with any machine, however, service may be required due to normal use or if the machine is abused. If a problem does occur, the VRBike should be serviced **only by qualified professionals**. Call Tectrix at 800-767-8082 or 714-380-8082 for service.

The world simulation

When you begin a workout, you become immersed in a new world. Travel wherever you like, either on or off the roads. No two rides have to be the same. Explore and have fun.

Workout statistics

Workout statistics are displayed on the screen whenever the Statistics button (\equiv) is pressed. Some of the statistics will be the same regardless of the virtual world in which you are exercising. These statistics include elapsed time, calories burned, current pedal cadence/RPM and heart rate (if installed). Other information is specific to the virtual world. For a bicycle simulation, this includes miles traveled and average speed.

Workout summary

At the end of a workout, the VRBike will display your "workout summary" including the statistics for your entire ride and your workout index. The workout index represents the quality of the workout as a single number that can be used to compare workouts from day to day and world to world. (A top athlete can achieve a workout index of 700 in a 20-minute workout.)

Workout pause

If the VRBike detects no input from the rider for a period of 15 seconds, it automatically enters a "workout pause". During the pause period workout statistics are saved but not incremented. The pause ends when the user begins pedaling again. The workout pause can be set to either 90 seconds for club use or unlimited for individual use (see Setup Mode). When the workout pause is set for club use, the VRBike will reset itself after 90 seconds of inactivity.

Network riding

VRBikes connected via the built-in SmartLink™ communication system and running the same simulation software are "networked". Users of the networked VRBikes will all exist in the same virtual world, and they will be able to see and interact with each other.

Other features

The VRBike includes a variable speed fan and speakers. In a bicycle simulation the fan blows at a rate proportional to the speed at which the bike is traveling in the world.

The two speakers mounted at the top of the seat-back supply realistic stereo sound effects and theme music. The volume adjustment buttons are programmed to lower the volume of the theme music first, then the sound effects. This allows the user to hear only the sound effects if desired.

2. Assembly Instructions

The VRBike is quite easy to assemble and should take about 15 minutes to complete. It will require the following common tools:

Medium Phillips Screwdriver (#2)

7/16" socket and ratchet

1/2" socket and ratchet

Unpacking your new **VRBike**

Remove the VRBike from the pallet by removing the screws attaching the support brackets. Remove the crossbar supports used to bolt the VRBike to the pallet with the 1/2" socket. To take the VRBike off the pallet, lift the rear steering handles and gently slide forward until the front wheels touch the ground. To move the VRBike, lift from the steering handles and roll on the front wheels. When VRBike is placed where it will be used, remove tape from the front wheels. Remove all the parts from the box and check that they are all present.

<i>Item #</i>	<i>Qty.</i>	<i>Part Name</i>	<i>Part Number</i>
1	1	CD-ROM disk	variable
2	1	Power Cord	14007
3	1	Daisy Chain Power Cord	14005
4	1	Communications Cable	61033
5	1	Owners Manual	03013
6	1	Warranty Card	03006
7	2	Termination Plugs	61026

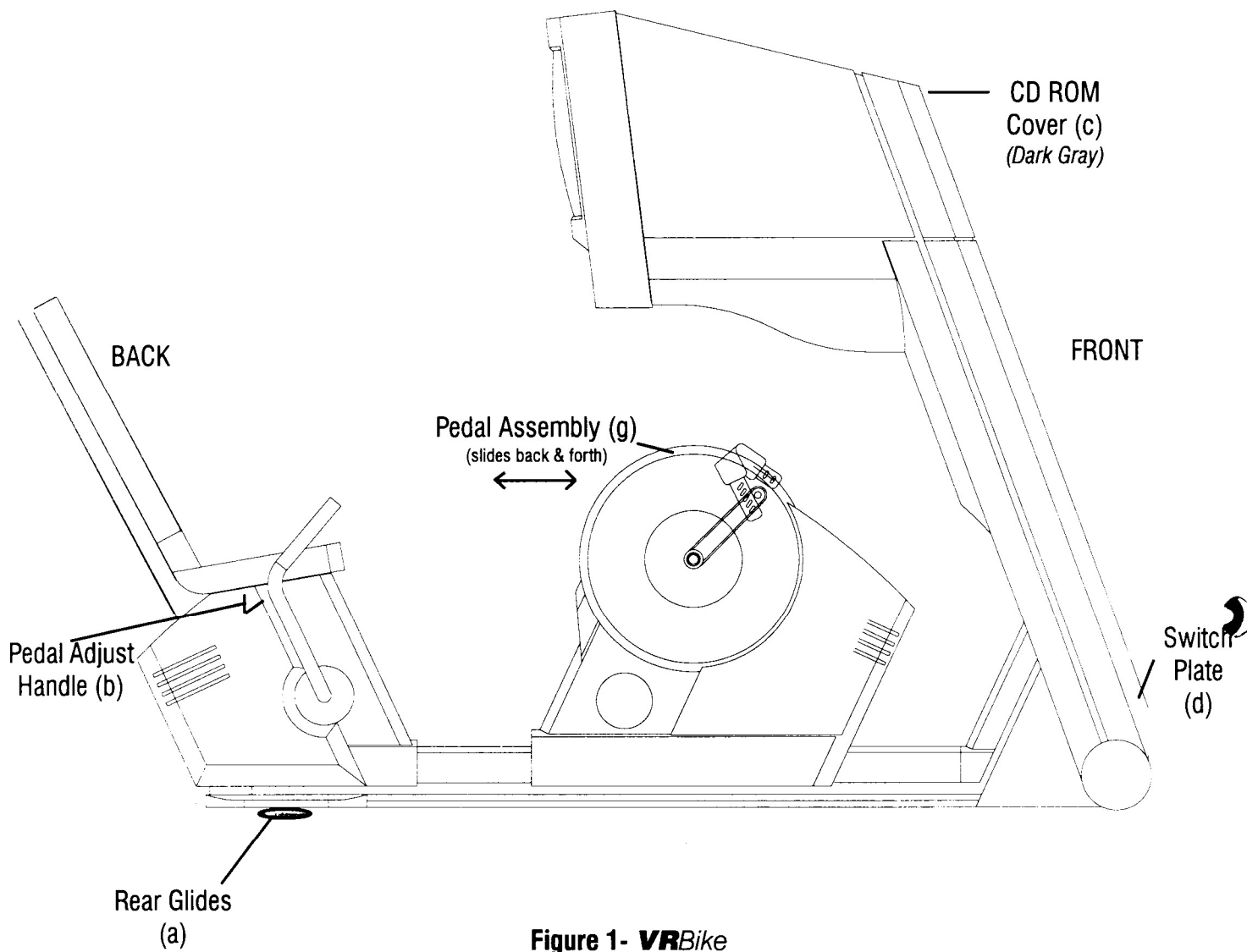


Figure 1- VRBike

Leveling

Once the VRBike has been moved to where it will be used, the rear glides (a) can be used to level it. The rear glides are located on either side of the back foot and can be raised and lowered by rotating the glide. Adjust the glides until the VRBike is sitting firmly on the floor.

Power Connection

The switch plate (d) is located at the lower front of the bike (see Figure 1). The standard power cord provided is plugged into the Power In receptacle and the other end to a wall outlet.

You may also string power from one VRBike to the next via the daisy chain power cord, eliminating the need for extension cords. One end of the daisy chain power cord plugs into the power out of one VRBike and the other end plugs into the power in of the next VRBike. The end VRBike uses the standard power cord to plug into the wall outlet. (Up to eight VRBike units can share one 10 amp outlet.)

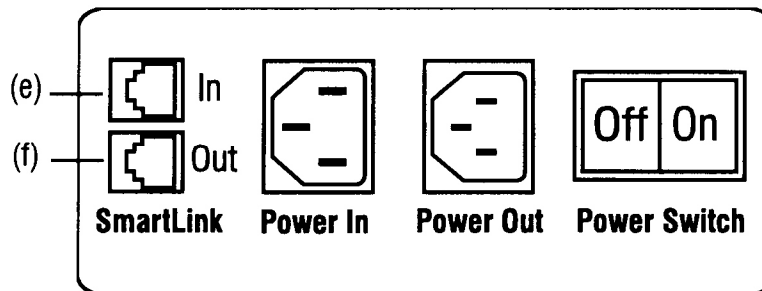


Figure 2 - Switch Plate

SmartLink™ Communications

The VRBike has two built-in SmartLink ports: (e) In jack, (f) Out jack as shown in Figure 2. These ports are designed to link with other VRBikes. A maximum of eight VRBikes can be linked together, allowing you to ride simultaneously in the same virtual world with up to seven other cyclists.

If you have more than one VRBike, plug in the communications cable provided (looks like a telephone cord but cannot be interchanged with one) to the Out jack (f) of each VRBike, then to the In jack (e) of the next VRBike and continue until all VRBikes are connected. Then, terminate the first In jack (e) and the last Out jack (f) with the termination plugs provided to complete the communication ring. If the bikes are not networked, termination plugs should be inserted into (e) and (f) of each bike.

All VRBikes connected via SmartLink will be networked. However, only VRBikes running the same virtual world will interact.

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Installing the CD-ROM disk

In order for the VRBike to work, a virtual world CD-ROM disk must be in the CD-ROM drive. A virtual world CD-ROM disk accompanies every new VRBike but is **not** loaded into the drive during manufacture. This helps ensure that the CD-ROM drive in your VRBike is not damaged during shipping. Locate the disk and have it ready.

To install a CD-ROM disk:

1. Turn on the VRBike. The power switch is at the very front of the VRBike, near the floor.
2. Slide up the dark gray panel (c), Figure 1, to expose the CD-ROM drive.
3. Press the bottom right button on the drive to eject the CD-ROM tray.
4. Place the disk, **label side up**, into the tray.
5. Press the bottom right button again to retract the tray.
6. Lower the dark gray panel.

Power-on Sequence

After installing the disk, the power-on sequence takes a couple of minutes to complete. You can follow the progress of the power-on sequence by watching the screen. The screen will go through the following stages:

- A colorful Tectrix screen will appear.
- A blue screen with some text will appear as the computer checks its memory.
- If the disk is not present or installed properly, the following message will appear:

"Unable to find CD! Please put CD in Drive"

If this message appears check the CD-ROM by repeating steps 2-6 in above section. Make sure the disk is label side up and centered in the tray.

- A message will appear to let you run the setup program. This program allows you to set the maximum workout time and other parameters. (See the Setup Program Section of this manual.)
- A series of progress messages will appear while the simulation program is loaded.
- A CyberGear screen will appear while the final simulation program is initialized.
- Unit is ready for use when you see a sign at the bottom of the screen, "Sit Down and Pedal".

NOTE: Do not sit on, tilt or operate the VRBike during the power-on sequence as the VRBike is calibrating many functions which **may be adversely** affected if the bike is used. For example, if the bike is tilted during the steering calibration, the virtual bike (the one in the computer simulation) will turn in circles when being ridden in what should be a straight line. (See the section on Troubleshooting if you are experiencing this problem.)

3. Getting Started

Pedal adjustment

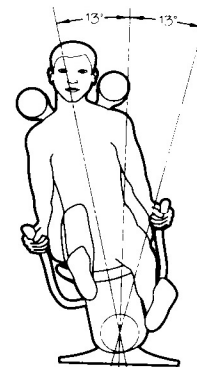
Unlike most exercise bikes, the VRBike requires you to **move the pedal assembly** (g), Figure 1, rather than the seat to accommodate different size riders. This was done to ensure that every rider's eyes are in the proper position relative to the screen. There are 17 pedal positions marked along the central beam between the seat and the pedals. Seated in the proper position, the extended leg should still be slightly bent at the knee.

In order to move the pedal assembly, pull up on the blue pedal-adjust handle (b), located just under the right side of the seat (see Figure 1). The pedals will automatically move towards the seat when the handle is lifted. Release the handle when the pedals are in the proper position and gently move the pedals until the latch snaps into place.

Note: The pedal mechanism may stick if the handle is pulled while excessive force is exerted on the pedals. If this occurs, gently release the pressure on the pedals and pull the handle.

Steering

A unique feature of the VRBike is that it tilts as you steer through the world, just like a real bicycle. The two handles located on either side of the seat are actually different ends of the same handlebar. Like bike handlebars they rotate when one end is pushed and the other pulled. Turning the handles to the left turns the virtual bike to the left and causes the VRBike to lean left. A spring hidden under the seat resists the tilting and aids in centering the bike.



Control panel

The VRBike control panel is a keypad located below and to the right of the screen.

- The **Start** (green) button clears the current workout and begins a new one. All of the exercise statistics (time, calories, etc.) are reset to zero; the workout length and speaker volume are set to their default values, and you are moved to the **Home** position in the world. This button should be used if you want to completely restart your workout or if you want to clear the previous rider's workout.
- The **Home** (gray and green) button returns you to the starting position in the world without resetting any of the workout information. This is helpful if you are lost or want to meet another rider.

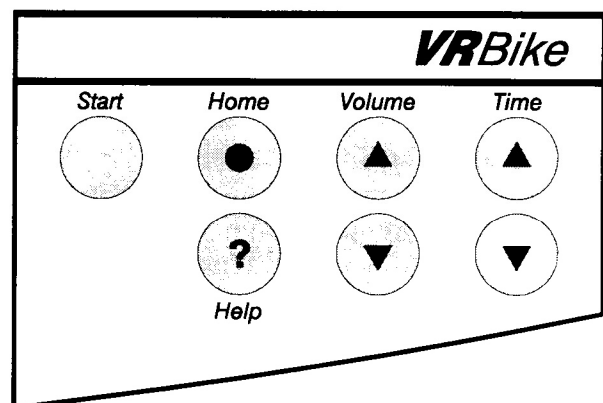


Figure 3 -Control Panel

Pressing the **Home** button at the very beginning of a workout will eliminate the introduction screens.

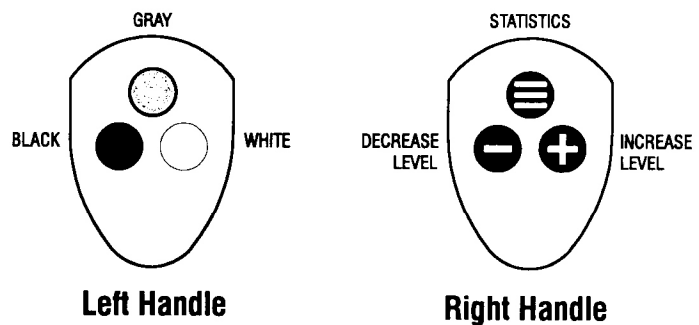
- The **Help (?)** button displays a sequence of on-screen diagrams designed to answer questions that you may have about the VRBike.
- The **Volume** buttons (up and down) raise and lower the volume of the speakers. You can set the maximum and default volume levels using the club-owner setup program.
- The **Time** buttons (up and down) adjust the workout timer's setting and can be used at any point during a workout. If the workout timer is not already on the screen, pressing one of the **Time** buttons will cause it to appear.

Handle buttons

There are three buttons located on each handle. Their functions are displayed on the screen while you are riding, (Figure 4). After pressing a button, to return to previous screen press the same handle button again.

On the Right Handle:

- The Statistics (\equiv) button displays a screen with relevant workout information such as workout time and calories.
- The Effort Level (+) and (-) buttons increase and decrease the workout level. For bicycle worlds, these buttons change the bicycle gears.



On the Left Handle:

The functions of the three buttons on the left handle vary depending upon the virtual world in which you are riding (see icon on screen).

Figure 4 - Handle Buttons

Sit down and pedal

Once you adjust the pedal assembly to the proper position, the simplest way to begin your workout is to start pedaling. You should press the Start button if the VRBike has not automatically cleared the previous rider's workout information from the screen.

End of workout

Pressing the **Time** up button on the control panel will extend the workout if the user has not reached the maximum workout time. (*Maximum workout time is established in the setup mode.*) When you reach the end of your workout, a "Workout Finished" message and workout "Summary" appear on the screen. If the workout is extended, both the "Workout Finished" message and workout "Summary" will automatically be removed from the screen and will reappear at the completion of the extended workout. "Summary" will be based on entire workout.

4. Setup Mode

The Setup Mode is used to change the VRBike's parameters. The setup parameters are described in the following table:

Parameter	Range of Values	Factory Settings
Default workout	1-60 minutes	20 minutes
Maximum workout	1-60 minutes	30 minutes
Default Sound	0-100%	85%
Maximum Sound	0-100%	100%
Units	English or Metric	English (Note: not all disks support metric units)
Language	Several settings are provided	English (Note: not all disks support multiple languages)
Workout Pause	90 seconds (club) Unlimited (personal)	90 seconds

Table 1 - Setup Parameters

To run the setup program use the following procedure:

1. Turn off the VRBike.
2. Turn the VRBike back on and make sure a disk is in the CD-ROM drive.
3. Sit in the seat and locate the two lower buttons (black and white) on the left handlebar.
4. Wait while the VRBike goes through the first stages of the power-on sequence.
5. A message will appear asking you to simultaneously press the two lower buttons on the left handlebar to run the setup program. Quickly press the two buttons. (If you wait too long, the program will continue the power-on sequence. In this case start over with step 1.)

Once in the Setup Mode, the number of hours which the VRBike has been turned on, the number of hours it has been in use, and the kilowatt-hours of its use are clearly displayed. To modify the other parameters displayed on the screen use the buttons on the right handlebar and control panel as follows:

- The (≡) button is used to highlight a selection, such as maximum volume.
- The (+) and (-) buttons are used to change the value of the highlighted parameter.
- Press the **Home** button on the control panel to set the parameters to their factory defaults.
- Once you have the parameters set to your liking, press the **Start** button on the control panel to exit the setup mode.

The VRBike's parameters are stored within the bike, not on the CD-ROM disk and will be kept in the VRBike's memory even when the power is turned off. This means you only need to set it up once. You do not have to modify the setup when you switch world simulation disks. If the language or units are set to an option which is not supported by the world on the disk, the program will substitute an available setting.

5. Options

Heart Rate Option

The VRBike may be equipped with a pulse rate monitor using Polar wireless ECG components. These consist of a sensor/transmitter, a washable elastic strap, and a receiver module.

The chest belt transmits a signal using low-frequency radio waves into a receiver module mounted beneath the seat. It operates over a three foot range, so you must be sitting on the bike or standing close to the seat for the receiver to pick up the signal.

To operate the monitor, strap on the chest-belt/transmitter and adjust it snugly. Moisten the skin under the electrodes (sweat works well). Position the transmitter beneath the breasts with the writing right side up. You may need to move the band one way or another to find the best position.

If a heart rate is detected during a workout, it will be displayed at the bottom of the statistics screen. To view this screen, press the Statistics button (\equiv) on the right handle.

6. Troubleshooting

Picture Quality

Picture quality may be adjusted using the monitor controls located above the CD-ROM drive. If there are problems with the picture, raise the CD-ROM Cover (c), Figure 1, and adjust the controls.

- BRIGHT = overall brightness of picture
- CONTR = relative light/dark contrast
- H-HOLD = horizontal hold/stability of picture
- V-POSTN = vertical position of picture
- H-SIZE = horizontal size of picture
- H-POSTN = horizontal position of picture
- V-SIZE = vertical size of picture
- V-HOLD = vertical hold/stability of picture

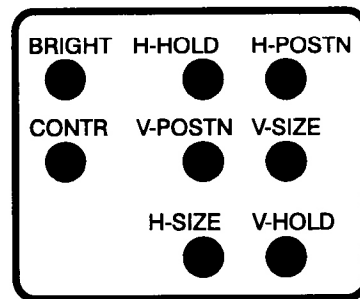


Figure 5 - Video Adjustment

Steering

Occasionally the steering sensor may slip causing the virtual bike to go into a continuous turn. There are two ways to reset the steering. First simply get off the bike, turn the VRBike off and back on again following the power-on sequence in the Assembly Instructions section. Second, return the bike to its center position and press both the volume up and volume down buttons at the same time. The latter method is useful during the middle of a workout.

SmartLink Communications

If the cables are not routed correctly from VRBike to VRBike, the network will not function properly. There are two jacks on every VRBike; an In jack and an Out jack, Figure 2. Verify that the bikes are linked to each other in the following manner. The first bike in the row should have a terminator plug in its In jack. A communications cable should be connected from the first bike's Out jack to the second bike's In jack. A communications cable should be connected from the second bike's Out jack to the third bike's In jack and so forth until you reach the last bike. The last bike should have a terminator plug in its Out jack.

Warranty

Your Tectrix VRBike must be registered with Tectrix for your warranty to commence. To register your VRBike call 714-380-8082 or 800-767-8082.

All of the VRBike's components are designed to withstand the rigors of a health club environment. As with any machine, however, service may be required due to normal use or if the machine is abused. If a problem does occur, the VRBike should be serviced **only by qualified professionals**. For additional information or warranty service, please call the Tectrix Technical Support Department at 800-767-8082 or 714-380-8082.

