



HeartSine samaritan<sup>®</sup> PAD  
500P Trainer  
model TRN-500  
User Manual



HeartSine<sup>®</sup>

The HeartSine PAD 500P Trainer is non-medical device intended to be used for the training of emergency responders in the proper use of the HeartSine PAD 500P. The Trainer has no therapeutic capabilities and must not be used in real life rescue situations.

To allow quick and easy identification the HeartSine PAD 500P Trainer incorporates a yellow front user interface membrane. The HeartSine PAD automated external defibrillator has a navy blue/black front membrane.

There are two versions of the HeartSine PAD Trainer which correspond to the two versions of the HeartSine PAD automated external defibrillator.

The 500P Trainer is intended to be used to train responders who may use the HeartSine PAD 500P automated external defibrillator.

This user manual has been written to include instructions on how to operate the HeartSine PAD 500P Trainer.

HeartSine recommends that responders who may use one of its defibrillators, should be trained in Cardiopulmonary Resuscitation with defibrillator use (CPR-D). The HeartSine PAD Trainer is intended to be used by approved CPR-D training providers for this purpose.

The HeartSine PAD 500P Trainer is factory configured to operate in accordance with the joint American Heart Association/European Resuscitation Council 2005 guidelines for CPR. The device comes with 4 pre-programmed scenarios. The samaritan PAD Trainer can also be manually controlled by the accompanying remote control.

Should the Guidelines change software will be available to upgrade the PAD 500P Trainer to comply, please contact your HeartSine authorized distributor or HeartSine Technologies direct.

Once turned on the HeartSine PAD Trainer will play audible voice prompts and accompanying visual indicators. The Trainer may be controlled with the accompanying remote control included with the device.

Please contact your authorized HeartSine distributor for a list of replacement accessories.

### Warranty Exclusion

HeartSine Technologies or the authorized distributors are not obliged to carry out service/repairs under warranty if:

- a. Unauthorized modifications have been made to the device.
- b. Non-standard components are used.
- c. The user has not used the device in accordance with the indications for use or the instructions provided in this manual.
- d. The serial number of the apparatus is removed, defaced, misused or altered.
- e. The device, electrodes or batteries are stored or used operationally outside of environmental specifications.
- f. The device has been tested using unapproved methods or inappropriate equipment (see maintenance section).

Any claims made under warranty must be directed via your distributor from whom the device was originally purchased. Before carrying out service under warranty, HeartSine Technologies require evidence of purchase. The product must be used in accordance with the user manual and for the purpose for which it was intended. If you have a query please contact [support@heartsine.com](mailto:support@heartsine.com) for assistance.

### Disposal Instructions

#### PAD 500P Trainer

The PAD 500P Trainer is a reusable device. If maintained in accordance with the instruction in this manual it has a warranty period of two years from the date of manufacture. The year of manufacture of the device is indicated by the first two digits of the serial number.

#### Disposal

If you wish to dispose of the PAD 500P Trainer unit, it should be disposed of at an appropriate recycling facility according to national, state and local requirements. Alternatively return the unit to your local distributor or HeartSine Technologies for disposal.

#### Within the European Union

Do not dispose of the PAD 500P Trainer unit as unsorted municipal waste. Collect the PAD 500P Trainer separately to be reused or recycled in accordance with Directive 2002/96/EEC of the European Parliament and the Council of the European Union on Waste Electronic and Electrical Equipment (WEEE), or return to your local distributor or HeartSine Technologies for disposal.

## Preparing the HeartSine PAD Trainer for use

- 1) Ensure that the HeartSine PAD 500P Trainer is fully charged (see Charging section of this manual).
- 2) Place the HeartSine PAD 500P Trainer and the trainer Pad-Pak on a flat surface. Push the trainer Pad-Pak into the opening of the HeartSine PAD 500P Trainer and listen for a “click” sound to ensure that it is properly inserted.
- 3) Place the batteries supplied with your Trainer into the HeartSine PAD Remote Control.
- 4) Press the On/Off Button on the HeartSine PAD 500P Trainer and listen to the voice prompts to ensure that the unit is functioning.
- 5) If the HeartSine PAD 500P Trainer has insufficient charge, it will not function correctly. Plug charger into the system to recharge the system. For full instructions see the Charging section of this manual. You may continue to operate the HeartSine PAD 500P Trainer as it recharges although charging will be at a reduced rate.

### Turning on and off the HeartSine PAD 500P Trainer

To turn on the HeartSine PAD 500P Trainer press the On/Off button on the HeartSine PAD 500P Trainer.



*By default the Trainer will function in the last scenario setting used.*

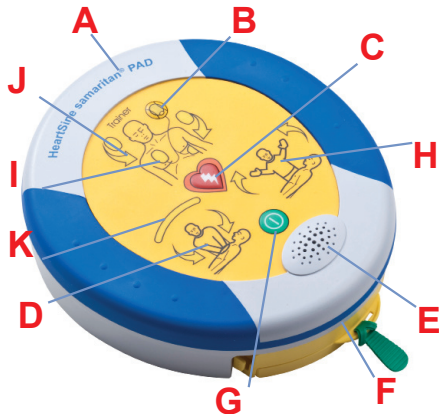
To turn off the HeartSine PAD 500P Trainer press the On/Off Button again.

Once the HeartSine PAD 500P Trainer has been turned on, it may be turned off using the accompanying remote control. To turn the Trainer off press the Off Button (red button) on the remote control.



*When turned on the HeartSine PAD 500P Trainer will automatically turn OFF after fifteen minutes if the device is not being used.*

PAD 500P Trainer



- A Data Port
- B Status Indicator
- C Shock Button
- D Safe To Touch Indicator
- E Speaker
- F Pad-Pak Cartridge
- G On/Off Button
- H Do Not Touch Indicator
- I Pads Placement Indicator
- J Action Arrows
- K CPR Indicator



**On/Off button**

Press this button to turn the device on and off.



**Attach pads indicator**

The action arrows around this icon will flash to instruct the user that the PAD 500P pads should be attached to the patient as indicated.



**Safe to touch indicator**

It is safe to touch the patient when the action arrows around this icon are flashing. You may perform CPR or check the patient.



**Action arrows**

The action arrows around an icon will flash to indicate the actions that the user should be performing.



**Do not touch indicator**

Do not touch the patient when the action arrows around this icon are flashing. The PAD 500P may be analysing the patients heart rhythm or preparing to deliver a shock.



**CPR Indicator.**

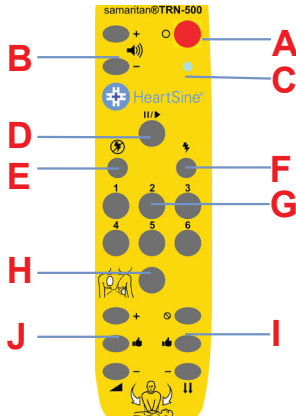
This is an array of lights which provide a graduated indication of the force being applied during CPR compressions. When Green lights illuminate the compressions are considered to be of adequate force.



**Shock button**

Press this button to deliver a therapeutic shock.

**PAD 500P Trainer Remote Control**



- A** Off Button
- B** Volume Control
- C** Low battery indicator
- D** Pause Button
- E** Shock required Scenario
- F** No shock required Scenario
- G** Select Scenario
- H** Attach electrodes
- I** CPR Advisor Force control
- J** CPR Advisor rate control



**Turning off the Trainer**

The remote control can be used to turn off the HeartSine PAD 500P Trainer. To turn the trainer off press the red button on the remote control.



**Changing the Volume**

There are four volume settings available on the HeartSine PAD 500P Trainer. The volume control buttons are to the left of the Off Button on the remote control. To increase the volume press the '+' Button and to decrease the volume press the '-' Button.



**Pausing the Trainer**

During training the HeartSine PAD 500P Trainer may be paused. To pause the trainer press the Pause Button (||/▶). The trainer will remain paused until the Pause Button is pressed again at which point it will continue to play the scenario selected.



**Changing the scenario**

The HeartSine PAD 500P Trainer comes with four preprogrammed training scenarios. (For details on the scenarios see the training scenarios section of this manual). The scenario may be changed by pressing the appropriate number button on the remote control i.e. pressing '3' will select training scenario three.

Once the scenario has been changed the device will operate as detailed in the scenarios section. The device will remain in this scenario until a new scenario is selected.

## Pre - programmed Training Scenarios

The HeartSine PAD trainer has four preprogrammed training scenarios to choose from. All preprogrammed scenarios are based on AHA/ERC 2005 guidelines. Details of the four preprogrammed scenarios are given below.

### Scenario 1

- |    |                   |   |   |
|----|-------------------|---|---|
| 1. | Setup mode        | - | "Call for Medical assistance", "Pull green tab", etc      |
| 2. | User intervention | - | "Pads" button to be pressed to confirm electrodes placed  |
| 3. | Monitor Mode      | - | "Assessing heart rhythm", "Do not touch the patient", etc |
| 4. | Shock advised     | - | User to press the shock button                            |
| 5. | CPR mode          | - | User to apply CPR with advisory as required               |
| 6. | Monitor Mode      | - | "Assessing heart rhythm", "Do not touch the patient", etc |
| 7. | No shock advised  | - |   |
| 8. | CPR mode          | - | User to apply CPR with advisory as required               |
| 9. | Repeat            | - | Steps 6 to 8 repeated until 'ON/OFF' button is pressed    |

### Scenario 2

- |    |                   |   |   |
|----|-------------------|---|---|
| 1. | Setup mode        | - | "Call for Medical assistance", "Pull green tab", etc      |
| 2. | User intervention | - | "Pads" button to be pressed to confirm electrodes placed  |
| 3. | Monitor Mode      | - | "Assessing heart rhythm", "Do not touch the patient", etc |
| 4. | No shock advised  | - |   |
| 5. | CPR mode          | - | User to apply CPR with advisory as required               |
| 6. | Monitor Mode      | - | "Assessing heart rhythm", "Do not touch the patient", etc |
| 7. | Shock advised     | - | User to press the shock button                            |
| 8. | CPR mode          | - | User to apply CPR with advisory as required               |
| 9. | Repeat            | - | Steps 6 to 8 repeated until 'ON/OFF' button is pressed    |

### Scenario 3

- |     |                   |   |   |
|-----|-------------------|---|---|
| 1.  | Electrodes        | - | Device assumes the electrodes are already attached        |
| 2.  | Monitor Mode      | - | "Assessing heart rhythm", "Do not touch the patient", etc |
| 3.  | Check Pads        | - | "Check Pads"  |
| 4.  | User intervention | - | "Pads" button to be pressed to confirm electrodes placed  |
| 5.  | Monitor Mode      | - | "Assessing heart rhythm", "Do not touch the patient", etc |
| 6.  | Shock advised     | - | User to press the shock button                            |
| 7.  | CPR mode          | - | User to apply CPR with advisory as required               |
| 8.  | Monitor Mode      | - | "Assessing heart rhythm", "Do not touch the patient", etc |
| 9.  | No shock advised  | - |   |
| 10. | CPR mode          | - | User to apply CPR with advisory as required               |
| 11. | Repeat            | - | Steps 3 to 10 repeated until 'ON/OFF' button is pressed   |

### Scenario 4

- |     |                  |   |   |
|-----|------------------|---|---|
| 1.  | Electrodes       | - | Device assumes electrodes are already attached            |
| 2.  | Monitor Mode     | - | "Assessing heart rhythm", "Do not touch the patient", etc |
| 3.  | Shock advised    | - | User to press the shock button                            |
| 4.  | CPR mode         | - | User to apply CPR with advisory as required               |
| 5.  | Monitor Mode     | - | "Assessing heart rhythm", "Do not touch the patient", etc |
| 6.  | Shock advised    | - | User to press the shock button                            |
| 7.  | CPR mode         | - | User to apply CPR with advisory as required               |
| 8.  | Monitor Mode     | - | "Assessing heart rhythm", "Do not touch the patient", etc |
| 9.  | No shock advised | - |   |
| 10. | CPR mode         | - | User to apply CPR with advisory as required               |
| 11. | Repeat           | - | Steps 5 to 10 repeated until 'ON/OFF' button is pressed   |

The remote control allows Training providers to control the scenario manually. When turned on the HeartSine PAD 500P Trainer will operate as detailed in the training scenarios listed. Training providers can override this by pressing the 'Shock required', 'No Shock required' or 'Attach Electrodes' button.



### **Shock required.**

Pressing the 'Shock required' button will cause the HeartSine PAD 500P Trainer to override the selected training scenario. Each subsequent analysis period will advise a shock to be delivered until either the Trainer is turned off or the 'No Shock advised' button on the remote control is pressed.



### **No Shock required.**

Pressing the 'No Shock required' button will cause the HeartSine PAD 500P Trainer to override the selected training scenario. Each subsequent analysis period will advise no shock to be delivered until either the Trainer is turned off or the 'Shock advised' button on the remote control is pressed.



### **Attach Electrode Pads.**

If the 'Attach Electrodes' button is pressed the Trainer will play the attach the electrodes prompts during the analysis period of operation. The Trainer will continue to play attach electrode prompts until the 'Attach Electrodes' button is pressed again.

### **HeartSine samaritan with CPR Advisor model 500P**

The HeartSine PAD 500P automated external defibrillator incorporates a CPR feedback module called 'CPR Advisor'. The HeartSine PAD 500P uses the CPR advisor function to provide simple feedback on the quality of the CPR being provided by rescuers. If appropriate the rescuer will be prompted to push harder until the compressions being provided are of good sufficient force.

If the compressions are considered to be of a good force the CPR Advisor will then analyze the rate that compressions are being performed. The rescuer will be prompted to push faster or slower as appropriate.

If the CPR being provided is of good force and rate the HeartSine PAD 500P will play a 'Good compressions' prompt.

All audible prompts are accompanied by visual prompts on the CPR indicator icon.



## CPR Advisor Training

Training providers can simulate the CPR Advisor function on the HeartSine PAD 500P Trainer by using the remote control. Training providers should observe the CPR being provided by the rescuers being trained and based on observations press the appropriate button.

The HeartSine PAD 500P Trainer will initially assume correct compressions are being performed and play the audible prompt

 *“Good Compressions”*

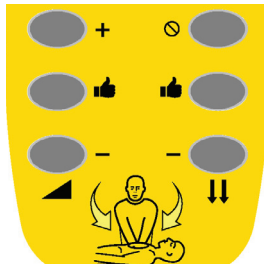
The CPR control buttons are at the bottom of the remote control. The buttons to the left are used to indicate the rate at which the trainee is performing compressions and the buttons to the right are used to indicate the force at which compressions are being delivered.

### Compression rate

Fast Compressions

Correct Rate

Slow Compressions



### Compression force

Begin CPR

Good Force

Insufficient Force

## Compressions Force

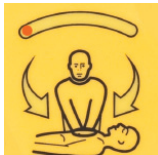
The HeartSine PAD 500P Trainer can mimic the CPR advisor function on the HeartSine PAD 500P defibrillator.



### CPR not started

If the trainee has not started to perform CPR press the 'No compressions' button. The HeartSine PAD 500P Trainer will play the audible prompt,

 *“Begin CPR”*



The 'CPR indicator' on the HeartSine PAD 500P Trainer has a single flashing orange light as shown. The trainee should begin CPR immediately.



## Compressions not hard enough

If the trainee has started to perform CPR but they are of insufficient force, Press the Insufficient Force button. The HeartSine PAD 500P Trainer will play the audible prompt,

 *"Push Harder"*



The 'CPR indicator' on the HeartSine PAD 500P Trainer will flash yellow as shown. The trainee should be prompted to begin CPR immediately.



## Good compression force

If the trainee is performing compressions of sufficient depth press the 'Good Force' button. The CPR indicator icon will now flash all lights (yellow and red) as shown.

The HeartSine PAD 500P Trainer will no longer issue messages referring to compression force at which the compressions are being given.

 *"Begin CPR"*



## Compressions rate

The HeartSine PAD 500P Trainer can mimic the CPR advisor function on the HeartSine PAD 500P defibrillator. The following are instruction on how to simulate rate of compressions.



## Compressions too slow


If the trainee is performing compressions too slowly press the 'Slow Compressions' button. The HeartSine PAD 500P Trainer will play the prompt.

 *"Push Faster"*



## Compressions too fast

If the trainee is performing compressions too quickly press the 'Fast Compressions' button. The HeartSine PAD 500P Trainer will play the prompt.

 *"Push Slower"*



## Compressions correct rate

If the trainee is performing compressions at the correct rate press the 'Correct Rate' button. The HeartSine PAD 500P Trainer will play the goods compressions prompt.

### **HeartSine PAD 500P Trainer battery management.**

The HeartSine PAD 500P Trainer contains a rechargeable battery. It is recommended that you ensure the HeartSine PAD 500P Trainer is fully charged prior to commencing training activities.

When fully charged the HeartSine PAD 500P Trainer will give you approximately four hours of usage before it needs to be recharged.

The HeartSine PAD 500P Trainer will monitor the capacity of the battery, as it approaches depletion. Prior to the battery becoming depleted the Trainer will play the following message.



“Warning. Low battery”

If this warning is heard you may continue to use your HeartSine PAD 500P Trainer for a limited period of time. If the trainer becomes completely depleted of power it will shut itself down. At this point the Trainer should be recharged.

If you wish to continue to use the HeartSine PAD 500P Trainer, without recharging it, you may plug the charger into the device. The device will charge at a much slower rate but the Trainer may continue to be used.

### **Recharging the HeartSine PAD 500P Trainer.**

To safely recharge the HeartSine PAD 500P Trainer follow the instructions given below.

- 1) Insert the charger adaptor into the socket on the HeartSine PAD 500P Trainer as shown in the picture. Ensure the adaptor is fully inserted.
- 2) Plug the charger into the mains electricity supply.
- 3) Leave the Trainer to charge. To charge a depleted HeartSine PAD 500P Trainer will take approximately 4 hours.
- 4) Remove the adaptor from the HeartSine PAD 500P Trainer. Turn on the trainer to ensure that the device is working.

If the HeartSine PAD 500P Trainer is switched on during charging the charger should be switched off then on again to restart fast charging.

The HeartSine PAD 500P Trainer must only be charged with the charger supplied with it. Use of any other charging device will nullify the warranty and may result in damage to the HeartSine PAD 500P Trainer.

The HeartSine PAD 500P Trainer and charger are designed for indoor use only. Do not use in wet or damp environments.

There are no user serviceable parts inside your HeartSine PAD 500P Trainer, Trainer Pad-Pak or charger. These products should not be opened. In the unlikely event of a malfunction, please contact your distributor immediately.

### Remote Control Batteries

The HeartSine PAD 500P Trainer Remote Control contains a low battery warning indicator. If this indicator flashes red two times after a button on the remote is pressed it is an indication that the batteries within the remote need replaced.

The remote control uses standard AAA batteries.

The batteries can be accessed by removing the battery cover at the back of the remote control.



Inserting the batteries into the handheld remote whilst pressing the OFF button will cause the remote to enter pairing mode and take a new transmission ID. This will be different to that previously stored on the trainer device. If this occurs accidentally it will be necessary to complete the pairing procedure in full to pair the device remote up with the HeartSine PAD 500P Trainer again.

Normal battery replacement does not cause a problem since pairing is only initiated when the OFF button is also held down.

### HeartSine PAD 500P Trainer Configuration Tool

The HeartSine PAD 500P Trainer configuration tool is software which can be downloaded for free from the HeartSine website ([www.HeartSine.com](http://www.HeartSine.com)). This software allows you to upgrade your Trainer. The following options are available.

#### Language

The HeartSine PAD 500P Trainer can be reprogrammed to operate with audible prompts in any one of a selection of languages. Download the current HeartSine PAD 500P Trainer configuration tool user manual from the HeartSine website for instructions on how to perform this.

#### Pairing a remote control with the samaritan PAD Trainer

Each HeartSine PAD 500P Trainer has an specific remote control to operate it. This is to allow multiple devices to be used in close vicinity without interference. In the unlikely event that your remote control no longer operates with your Trainer it may need to be paired with your Trainer again.

The HeartSine PAD 500P Trainer Configuration Tool can be used to pair a remote with your Trainer. Full instructions are contained within the accompanying user manual.

#### Device Identifications

Each HeartSine PAD 500P Trainer is given an identification number between 001 and 255 during manufacture. The remote control for each Trainer is then given the same identification number. In the unlikely event that two devices with the same ID number are being used at the same time use the HeartSine PAD 500P Trainer Configuration Tool to assign new numbers to the devices. It will be necessary to pair the device with its remote control after assigning a new ID number.

## CPR Guidelines 2005

The following is a brief overview of the fundamentals of CPR for lay rescuers as advised by both the American Heart Association (AHA) and the European Resuscitation Council (ERC) in their 2005 published Guidelines for CPR and ECC. This is intended only as a quick reference for trained CPR providers. HeartSine recommend that all potential users of the PAD 500P are trained by a competent training organisation in both the use of CPR and PAD 500P, prior to placing a PAD 500P into service. Should the Guidelines change software will be available to upgrade the PAD 500P to comply, please contact your HeartSine authorized distributor or HeartSine Technologies direct.

**CALL Emergency Services  
(999/911/112 etc) Send for an AED**



**Person not responsive?**  
Address person and shake on shoulder



**Watch, feel, listen**



**Open the airway, check for breathing**  
Address person and shake on shoulder



**2 Breaths 30 Compressions  
(AHA) / 30 compressions 2  
Breaths (ERC)**



**Perform CPR until an AED is available  
OR arrival of emergency physician**  
Engage other people to help you and  
alternate CPR



**If available use an AED**



**If AED is available switch on and follow  
instructions**

**Analysis shock decision**

**YES**

**NO**



**DELIVER SHOCK**



**Continue CPR for 2 minutes/ 5 cycles**

**Continue CPR until Emergency Services arrive.**  
Alternate with second person after one cycle or 2  
minutes