



OPERATOR'S MANUAL

HeartOn T15[®]

AED Trainer

www.medianadefib.co.uk

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Configuration of AED Trainer

The following table identifies AED trainer configurations and how they are indicated. Model name is located on the bottom of the AED trainer.

Model	Reference No.	Description
HeartOn T15	T15-G8-0E	Basic (8 Action icon)
HeartOn T15-G4	T15-G4-0E	Basic (4 Action icon)

Features of AED Trainer

- AED Trainer provides simulated shock delivery. It has no high-voltage capabilities, ensuring safety during training.
- AED Trainer can be used with the infrared remote control. The remote control gives the instructor the ability to alter training scenarios while in progress, to test student response.
- AED Trainer is pre-configured with 10 training scenarios that simulate realistic sudden cardiac arrest episodes.
- The 1st scenario can be simulated at first by using the **MEDIANA OPTION button** of the remote control. (HeartOn T15 only. The **MEDIANA OPTION button** press is ignored on HeartOn T15-G4.)
- The shockable rhythm or non-shockable rhythm can be simulated immediately by using the remote control.
- The PC software let you configure custom scenarios.
- Connection to a PC serial port requires USB 2.0 A-Male to Mini-B cable. .

Description of the AED Trainer

Components and Controls

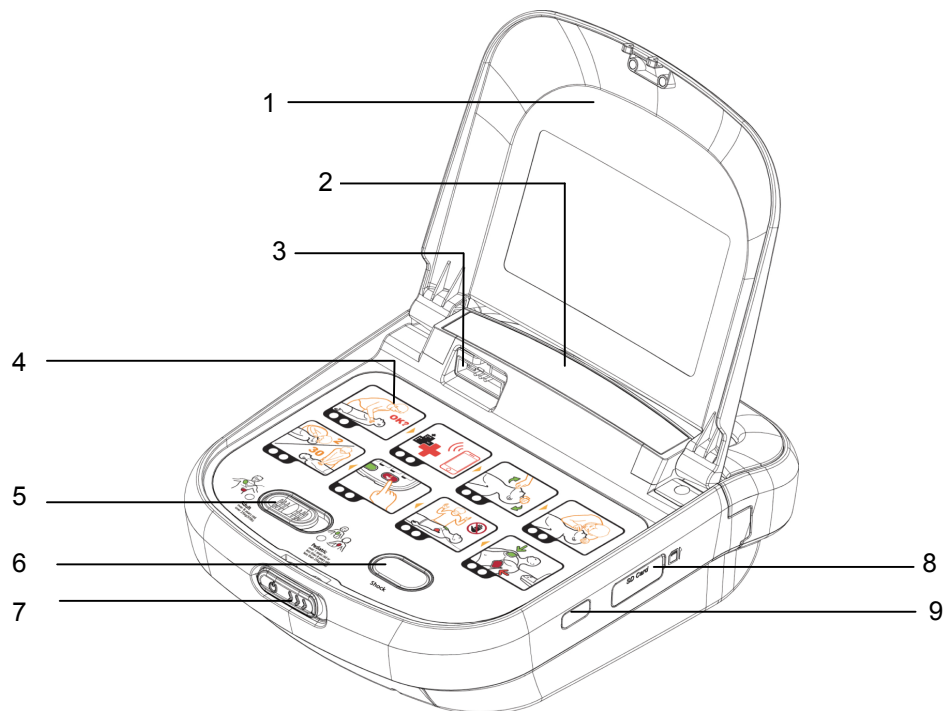


Figure 1. HeartOn T15 Components and Controls

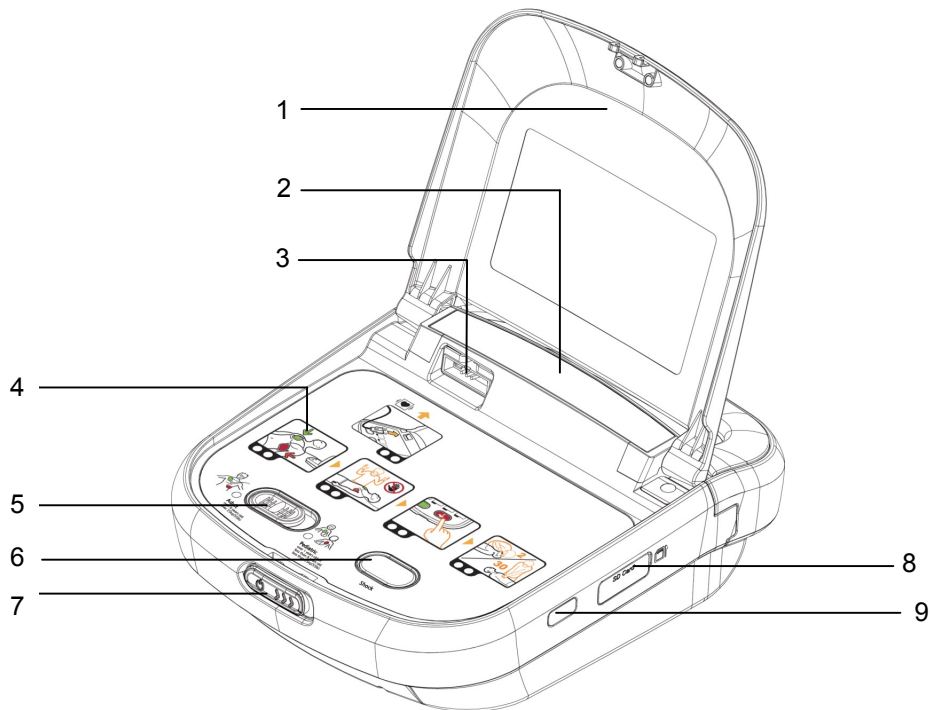


Figure 2. HeartOn T15-G4 Components and Controls

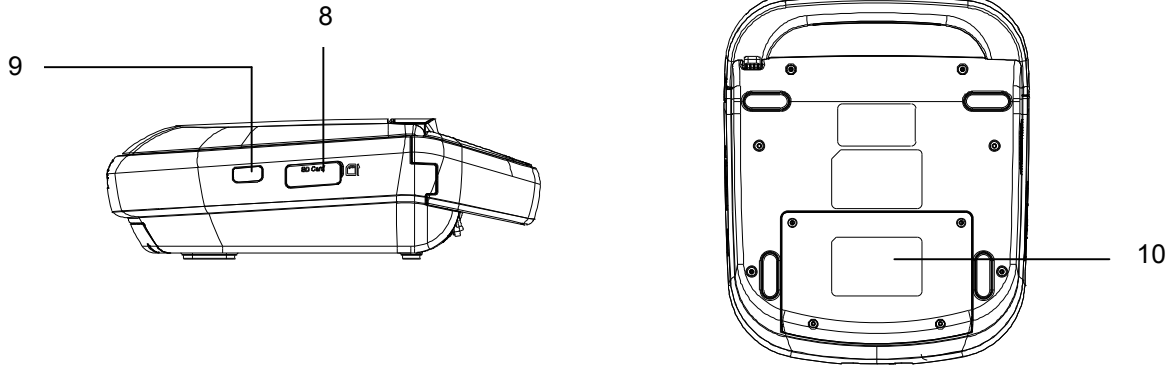


Figure 3. Side and bottom panel of AED Trainer

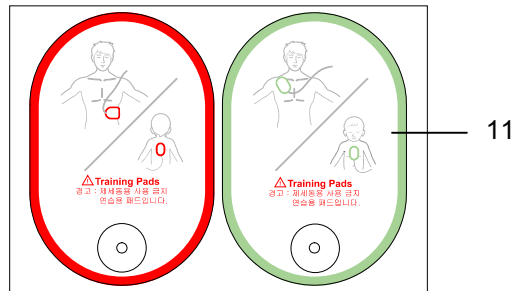


Figure 4. Training Pads

Table 1. AED Trainer Components and Controls

No.	Components	Description
1	Cover	Cover is used to protect the action icon, the patient mode switch and the shock button.
2	Status indicator	Status indicator displays the AED status, the temperature status and the battery status.
3	Pad connector	Pad connector links the pads.
4	Action icon	LED indicator flashes red LED under the relevant action icon.
5	Patient mode switch	After distinguishing the patient according to patient type, select the patient mode between adult and pediatric patient mode by pushing the patient mode switch.
6	Shock button	When preparation for electric shock is completed, press the flashing button and then the AED delivers the simulated shock.
7	Slide button	Slide button is used to open the cover and turn on by pushing the slide button to right.
8	SD card port	SD card port is not used in HeartOn T15 and HeartOn T15-G4.
9	Infrared communication port	Infrared communication port is used to communicate with the remote control.
10	External DIP Switch Box	External DIP switch box is used to protect the external DIP switch and external DIP switch in external DIP switch box is used for changing custom scenario.
11	Training Pads	Training pads are attached to the manikin and cannot deliver a defibrillation shock.

Table 2. HeartOn T15 Action Icon







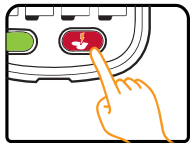
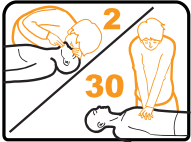
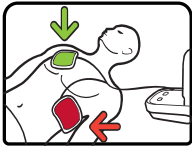

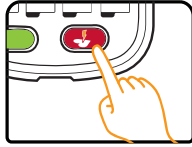
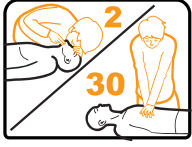
Action icon	Voice prompt
	<p>“Check for response. Are you right?”</p>
	<p>“Call for help.”</p>
	<p>“Open the airway.”</p>
	<p>“Check breathing.”</p>
	<p>“Remove clothes from the patient’s chest. Place pads exactly as shown in the picture. Press pads firmly to patient’s bare chest.” or “Plug in pads. Insert connector firmly.” “Adult pads” or “Pediatric pads”</p>
	<p>“Analyzing heart rhythm. Do not touch the patient.” “Shock advised. Charging. Do not touch the patient.” or “Analyzing heart rhythm. Do not touch the patient.” “No shock advised.”</p>
	<p>“Press the red flashing button now. Deliver shock now.” “Shock delivered.” or “Press the red flashing button now. Deliver shock now.” “Shock cancelled.” or “Press the red flashing button now. Deliver shock now.” “Shock button not pressed.”</p>
	<p>“It is safe to touch the patient.” “Begin CPR.” or “If needed, Begin CPR.” {[Beep] “Give two breaths.”} { } Repeat 5 times “Stop CPR.”</p>

Table 3. HeartOn T15-G4 Action Icon


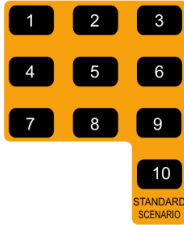













Action icon	Voice prompt
	<p>“Remove clothes from the patient’s chest. Place pads exactly as shown in the picture. Press pads firmly to patient’s bare chest.”</p> <p>or</p> <p>“Plug in pads. Insert connector firmly.”</p> <p>“Adult pads” or “Pediatric pads”</p>
	<p>“Analyzing heart rhythm. Do not touch the patient.”</p> <p>“Shock advised. Charging. Do not touch the patient.”</p> <p>or</p> <p>“Analyzing heart rhythm. Do not touch the patient.”</p> <p>“No shock advised.”</p>
	<p>“Press the red flashing button now. Deliver shock now.”</p> <p>“Shock delivered.”</p> <p>or</p> <p>“Press the red flashing button now. Deliver shock now.”</p> <p>“Shock cancelled.”</p> <p>or</p> <p>“Press the red flashing button now. Deliver shock now.”</p> <p>“Shock button not pressed.”</p>
	<p>“It is safe to touch the patient.”</p> <p>“Begin CPR.”</p> <p>or “If needed, Begin CPR.”</p> <p>{[Beep] “Give two breaths.”}</p> <p>} Repeat 5 times</p> <p>“Stop CPR.”</p>

Remote Control



Figure 5. AED Trainer Remote Control

Table 4. AED Trainer Remote Control

Symbols	Description
	The LED flashes when the button is pressed.
	Select one of the 10 standard scenarios.
	Select one of 3 custom scenarios.
	Adjust speaker volume. The last setting will be stored when the AED cover is closed.
	Shockable rhythm button
	Non-shockable rhythm button
	Poor pad condition recovery button
	Motion artifact button
	Poor pad condition button
	Not used in HeartOn T15 and HeartOn T15-G4.
	Low battery condition button
	Error condition button
	Resumption button
	Freeze button
	MEDIANA OPTION button (HeartOn T15 only. The MEDIANA OPTION button press is ignored on HeartOn T15-G4.)

Using the AED Trainer

Operating the AED Trainer

1. Push the **Slide Button** to open the AED cover.
2. If the AED is turned on by pushing the **Slide Button**, the first scenario is started automatically.
3. To change the scenario during other scenario simulation, press the desired scenario number on the remote control then a selected scenario will be started automatically.
4. The volume can be controlled by 10 steps. The last setting will be stored and maintained even if the AED has been turned off.

Function of remote control



The shockable rhythm is simulated to deliver the shock immediately. After deliver the shock, the next scenario is simulated.



The non-shockable rhythm is simulated. The CPR scenario is simulated without shock delivery.



The poor pad condition is recovered to the good pad condition. After then, the AED Trainer resumes on the analyzing rhythm scenario.



The motion artifact is simulated.



When the button is pushed once, the poor pad condition is simulated and push again, the changing pad condition is simulated. When the pad disconnects and connects again, the changing pad condition is recovered to normal condition.



Not used in HeartOn T15 and HeartOn T15-G4.



Simulate the Low battery condition and indicate Low battery condition on the status indicator. When the button is pushed again, the AED Trainer displays real battery level on the status indicator.




Pressing one time, the AED is operated normally, current temperature is indicated low, and temperature icon is flashing. Pressing once again, error condition is simulated, the X mark is displayed on the status indicator and temperature icon is lit. Finally, pressing once again, the AED will not be operated, unless the AED cover is closed and then reopened.



Resume the audible activity from the point at which it was paused.



Pause all audible activity in the AED Trainer. If  button is not pushed, the AED Trainer does not play any audible activity during pushing any button.



The starting point of the standard scenario can be selected by user. **MEDIANA OPTION button** is toggles between starting point from the checking patient's consciousness and starting point from the beginning part. (HeartOn T15 only. The **MEDIANA OPTION button** press is ignored on HeartOn T15-G4.)

Note: When the pads are not connected during scenario simulation, the audio prompt sounds repeatedly to ask the pads is inserted.

Custom Scenario

The default custom scenario is simulated if the custom scenario setting is not changed by user.

Changing Custom Scenario

1. Open the external DIP switch box at bottom panel.
2. Place the 5 and 6 pin of the **External DIP Switch** to down position to activate custom scenario function.
3. Connect the USB mini B cable.
4. Run the custom scenario software (option) on the PC.
5. Set up the serial port (COM port) on the PC.
6. Select the desired scenario and then perform the download to the custom scenario 1, 2, or 3.
7. After completion of downloading, turn off the AED by closing the AED cover and disconnect the USB mini B cable.
8. Set the **External DIP Switch** to normal operation.
9. Turn on the AED by opening the AED cover again and verify the setting of custom scenario by pressing the **Custom Scenario Button** on the remote control.

Table 5. Setting of External DIP Switch

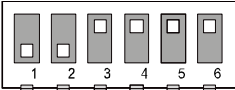
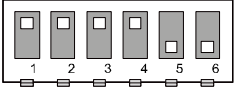

Setting of External DIP Switch	Description	Setting available
	Normal operation	Standard use
	Changing custom scenario	Standard use
	Changing audible list	Not use without approval by service personnel

Table 6. Scenario

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
1*	Checking patient's consciousness	Checking patient's consciousness	Checking patient's consciousness	Checking patient's consciousness	Checking patient's consciousness
2*	Calling to EMS	Calling to EMS	Calling to EMS	Calling to EMS	Calling to EMS
3*	Open the airway	Open the airway	Open the airway	Open the airway	Open the airway
4*	Checking breath	Checking breath	Checking breath	Checking breath	Checking breath
5	Attaching pad	Attaching pad	Attaching pad	Attaching pad	Attaching pad
6	Warning: Do not touch with the patient	Warning: Do not touch with the patient	Poor Pads connecting	Warning: Do not touch with the patient	Warning: Do not touch with the patient
7	Analyzing rhythm	Analyzing rhythm	Warning: Do not touch with the patient	Analyzing rhythm	Analyzing rhythm
8	Simulating Shockable rhythm	Simulating Shockable rhythm	Analyzing rhythm	Simulating Shockable rhythm	Simulating non-shockable rhythm
9	Delivering shock	Delivering shock	Simulating Shockable rhythm	Delivering shock	CPR(30:2, 5CYCLE)
10	CPR(30:2, 5CYCLE)	CPR(30:2, 5CYCLE)	Delivering shock	CPR(30:2, 5CYCLE)	
11	Warning: Do not touch with the patient	Repeat 3 times No. 6 to 10	CPR(30:2, 5CYCLE)	Warning: Do not touch with the patient	
12	Analyzing rhythm	Warning: Do not touch with the patient	Warning: Do not touch with the patient	Analyzing rhythm	
13	Simulating non-shockable rhythm	Analyzing rhythm	Analyzing rhythm	Simulating non-shockable rhythm	
14	CPR(30:2, 5CYCLE)	Simulating non-shockable rhythm	Simulating non-shockable rhythm	CPR(30:2, 5CYCLE)	
15		CPR(30:2, 5CYCLE)	CPR(30:2, 5CYCLE)	Warning: Do not touch with the patient	
16				Analyzing rhythm	
17				Simulating Shockable rhythm	
18				Delivering shock	
19				CPR(30:2, 5CYCLE)	

* HeartOn T15 only. The **MEDIANA OPTION button** press is ignored on HeartOn T15-G4.

Note: When the standard scenario is selected, AED trainer starts the simulation from 'Analyzing rhythm' step. To start the simulation from 'Checking patient's consciousness' step, select the desired standard scenario after pressing the **MEDIANA OPTION button** on the remote control. (HeartOn T15 only. The **MEDIANA OPTION button** press is ignored on HeartOn T15-G4.)

Table 7. Scenario (continued)

	Scenario 6	Scenario 7	Scenario 8	Scenario 9	Scenario 10
1*	Checking patient's consciousness	Checking patient's consciousness	Checking patient's consciousness	Checking patient's consciousness	Checking patient's consciousness
2*	Calling to EMS	Calling to EMS	Calling to EMS	Calling to EMS	Calling to EMS
3*	Open the airway	Open the airway	Open the airway	Open the airway	Open the airway
4*	Checking breath	Checking breath	Checking breath	Checking breath	Checking breath
5	Attaching pad	Attaching pad	Attaching pad	Attaching pad	Attaching pad
6	Warning: Do not touch with the patient	Warning: Do not touch with the patient	Poor Pads connecting	Warning: Do not touch with the patient	Simulating motion artifact
7	Analyzing rhythm	Analyzing rhythm	Warning: Do not touch with the patient	Analyzing rhythm	Warning: Do not touch with the patient
8	Simulating Shockable rhythm	Simulating Shockable rhythm	Analyzing rhythm	Simulating Shockable rhythm	Analyzing rhythm
9	Delivering shock	Delivering shock	Simulating Shockable rhythm	Delivering shock	Simulating Shockable rhythm
10	CPR(30:2, 5CYCLE)	CPR(30:2, 5CYCLE)	Delivering shock	CPR(30:2, 5CYCLE)	Delivering shock
11	Warning: Do not touch with the patient	Warning: Do not touch with the patient	CPR(30:2, 5CYCLE)		CPR(30:2, 5CYCLE)
12	Analyzing rhythm	Analyzing rhythm	Warning: Do not touch with the patient		Warning: Do not touch with the patient
13	Simulating Shockable rhythm	Simulating Shockable rhythm	Analyzing rhythm		Analyzing rhythm
14	Delivering shock	Delivering shock	Simulating Shockable rhythm		Simulating non-shockable rhythm
15	CPR(30:2, 5CYCLE)	CPR(30:2, 5CYCLE)	Delivering shock		CPR(30:2, 5CYCLE)
16	Warning: Do not touch with the patient	Warning: Do not touch with the patient	CPR(30:2, 5CYCLE)		Low Battery
17	Analyzing rhythm	Analyzing rhythm	Warning: Do not touch with the patient		
18	Simulating non-shockable rhythm	Simulating non-shockable rhythm	Analyzing rhythm		
19	CPR(30:2, 5CYCLE)	CPR(30:2, 5CYCLE)	Simulating non-shockable rhythm		
20		Warning: Do not touch with the patient	CPR(30:2, 5CYCLE)		

	Scenario 6	Scenario 7	Scenario 8	Scenario 9	Scenario 10
21		Analyzing rhythm			
22		Simulating Shockable rhythm			
23		Delivering shock			
24		CPR(30:2, 5CYCLE)			
25		Warning: Do not touch with the patient			
26		Analyzing rhythm			
27		Simulating non-shockable rhythm			
28		CPR(30:2, 5CYCLE)			
* HeartOn T15 only. The MEDIANA OPTION button press is ignored on HeartOn T15-G4.					

Note: When the standard scenario is selected, AED trainer starts the simulation from 'Analyzing rhythm' step. To start the simulation from 'Checking patient's consciousness' step, select the desired standard scenario after pressing the **MEDIANA OPTION button** on the remote control. (HeartOn T15 only. The **MEDIANA OPTION button** press is ignored on HeartOn T15-G4.)

Maintenance

To clean the AED Trainer, wipe the AED trainer with a soft cloth that has been dampened by one of the following:

- Soapy water
- 70% Isopropyl alcohol

Do not immerse any part of the AED Trainer in water or any type of fluid. Contact with fluids may seriously damage the device or cause fire or shock hazard.

Do not clean the AED Trainer with abrasive materials, cleaners or solvents.

Specification

Characteristics

- Power
 - 1) DC 10.8V / 2200mAh 3cell Li-ion rechargeable Battery
 - 2) DC 15V / DC adapter 15V, 1.5A
- Static Current : < 5uA
- Maximum Current : < 500mA
- Size: 240mm × 294mm × 95mm
- Weight: 1.44kg (including the battery)

Environmental Conditions

Operation

- Temperature: 0 to 43°C (32 to 109.4°F)
- Relative Humidity: 5 to 95% Non-condensing
- Altitude: 0 to 4,575 m

Storage

- Temperature: -20 to 60°C (-4 to 140°F)
- Relative Humidity: 5 to 95% Non-condensing
- Altitude: 0 to 12,192 m

Remote control

- Power: DC 3V / Coin cell battery
- Static Current : < 5uA
- Maximum Current : < 10mA

List of Components

No.	Description	Q'ty	Unit
1	HeartOn T15 (including the battery)	1	pc
	HeartOn T15-G4 (including the battery)		
2	Remote control	1	pc
3	Training pad for adult/pediatric (It can use 100 times)	1	pc
4	Operator's manual	1	pc
5	Storage bag (Nylon Bag)	1	pc
6	DC Adapter	1	pc
7	AED Trainer Software CD (Option)	1	pc