

Product Comparison

LUCAS® 2 Chest Compression System
vs. Zoll® AutoPulse® Non-invasive
Cardiac Support Pump



LUCAS 2 chest compression system



AutoPulse

| WHICH COMPRESSION DEVICE TO USE? | | |
|--|---|---|
| Compressions per minute | at least 100 | 80 ±5 |
| Compression depth | 2.1 ± 0.1 (5 - 5.6 cm) | 20% reduction in anterior-posterior chest depth +0.25/-0.5 inches (+0.6/-1.3 cm) |
| Compression method | Sternal Compressions | Circumferential Compressions |
| Compression forces at work | Intrathoracic pressure gradient differences | Intrathoracic pressure gradient differences |
| Power source | Rechargeable Lithium-ion Polymer Battery 3.3 Ah (typical) | Rechargeable Nickel Metal Hydride Battery 3.2 Ah (typical) |
| Typical operating time on one battery | 45 minutes | 30 minutes |
| Charge time between uses | Less than 4 hours | Less than 4.25 hours |
| Total solution weight (in carry case with extra battery) | 22 lbs (10 kg) | 39 lbs (18 kg) |
| Device weight (with battery) | 17.2 lbs (7.8 kg) | 25.6 lbs (11.6 kg) |
| Battery weight | 1.3 lbs (0.59 kg) | 5.1 lbs (2.3 kg) |
| Patient size | Sternal height of 6.7 to 11.9 inches (17 to 30.3 cm) | Chest circumference of 29.9 to 51.2 in (76 to 130 cm) |
| Chest width limits | Up to 17.7 inches (44.9 cm) | 9.8 to 15 inches (25 to 38 cm) |
| Patient weight | The use of LUCAS is not restricted by patient weight | The AutoPulse is designed for adults with weight of no more than 300 lbs (136 kg) |
| Time to apply device | Interruptions in manual compressions of <20 seconds | Not specified |
| IP Rating | 44 | 24 |
| COST OF OWNERSHIP | | |
| Cost of Device | \$14,495.00 | \$10,995.00 |
| Service support | \$1,095.00 | \$1,095.00 |
| Carry case | included with device | \$395.00 |
| Batteries (for 1.5 hours run time) | \$615.00 (1 battery included with device) | \$1,725.00 (no batteries included with device) |
| Charger | \$945.00 | \$1,795.00 |
| Disposable (3 pack) starter kit | included with device | \$375.00 |
| Initial Investment | \$17,150.00 | \$16,380.00 |
| COST PER USE | | |
| Battery | \$2.97 | \$5.75 |
| Disposable | \$40.00 | \$125.00 |
| Standard operating costs over 1 year (100 uses) | \$4,297.00 | \$13,075.00 |
| Standard operating costs over 5 years (500 uses) | \$21,485.00 | \$65,375.00 |

LUCAS is very easy to use and requires fewer steps to apply than AutoPulse.
LUCAS can be applied with interruptions to compressions of less than 20 seconds.

LUCAS 2 chest compression system

STEPS FOR OPERATION

- 1 Push on/off for 1 second to power up
- 2 Carefully put the back plate under the patient, immediately below armpits
- 3 Pull release rings to make sure claw locks are open and then let go of the release rings
- 4 Attach the support leg nearest to you on the back plate
- 5 Attach the other support leg to the back plate and listen for click
- 6 Pull up once to be sure parts are correctly attached
- 7 Center the suction cup over the chest, with lower edge immediately above the end of the sternum
- 8 Press the adjust button on the device and push down on the suction cup with two fingers until pressure pad touches patient's chest
- 9 Press pause to lock suction cup in place
- 10 Push activate to start compressions

Note: Defibrillation pads can be applied after LUCAS is applied and running

Refer to your compression device operating instructions for actual operation of the device.

AutoPulse

STEPS FOR OPERATION

- 1 Power up the AutoPulse
- 2 Sit patient up, make a single cut down the back of patient's clothing
- 3 Place posterior defibrillation/pacing pad on patient's back, if using anterior/posterior placement
- 4 Slide AutoPulse into position behind the sitting patient and lay the patient down onto the platform
- 5 Grasp clothing by the sleeves and pull down towards ankles to remove from both the front and the back of the torso
- 6 The anterior pad may be placed at this time
- 7 Position patient so he/she is centered laterally and that the armpits are aligned with the AutoPulse using the yellow line positioning guides on the platform
- 8 Close the LifeBand® around the patient's chest
- 9 Properly align the two sides of the LifeBand, place on top of patient's chest
- 10 Locate mating slot of band over the alignment tab
- 11 Press bands together to engage and secure Velcro® fastener
- 12 Lift up the LifeBand to the fullest, ensuring that the side bands are at a 90 degree angle to the platform, that they are not twisted or that there are no obstructions
- 13 Center the LifeBand on the patient's chest, placing it such that its center is over the area upon which manual compressions are conducted
- 14 Make sure the yellow upper edge of the LifeBand is aligned with patient's armpits and is over the yellow line on the AutoPulse platform
- 15 Press and release the start button once to begin compressions

REFERENCE DOCUMENTS

- Power source cost per use is based on total number of uses per battery (200 for LUCAS 2 battery, 100 for AutoPulse battery)..
- All ZOLL AutoPulse pricing is based on 2011 quotes.
- ZOLL AutoPulse service plan listed is for a 1-year extended warranty for depot repair.
- LUCAS 2 Chest Compression System Instructions for Use (26500-003434, 2011).
- AutoPulse Resuscitation System Model 10 User Guide (P/N 11440-001, Rev. 3 2009).

For further information please call 1.800.442.1142 or visit www.physio-control.com



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