

LIFEPAK® 15 MONITOR/DEFIBRILLATOR

Works like you work.™

What is LIFEPAK TOUGH™?

In emergency situations, your equipment is a critical member of your rescue team. If it breaks, it could cost more than the price of repairs. It could cost lives.

Around the world every day, thousands of medical professionals depend on LIFEPAK products in the toughest environments. Emergency scenes. Airports. Hospitals. Ambulances. And even on the International Space Station. Through more than 50 years of field testing, we have built a reputation for creating some of the most durable, reliable and trusted lifesaving products on the market today.

LIFEPAK TOUGH gives you the confidence to respond to any cardiac emergency with equipment as resilient and hardworking as you are.

How do we make something LIFEPAK TOUGH?

We believe LIFEPAK equipment should live up to the highest expectations of those working in the harshest settings. So, in addition to the engineering design of the product, we ask for advice from the people who use our products in the real world everyday. We test and re-test our products in the field to ensure ruggedness and durability on the job. By understanding how you work and the demands of your profession, we are able to build LIFEPAK TOUGH products for the most challenging environments.

Here are just a few of the features that make the 15 LIFEPAK TOUGH.

- More robust cables, connections and modules in the 15 developed by our monitoring partners MASIMO®, Oridion® and CASMED®.
- A circular shield surrounds the ECG connector slot for a more solid cable connection that helps to prevent cable migration and pin breakage.
- Reinforced cables connect to monitoring and therapy parameters via redesigned cable connectors.
- New NIBP connector with improved O-ring seal to help prevent air leaks, tested to withstand 8,700 insertion/removal cycles.
- Durable and longer-lasting Lithium-ion batteries that pass the one-meter drop test and provide power for up to three hours.
- Composite handle and connection points act as a shock absorber, along with an interior design capable to handle more vibration.
- Robust keypad designed to resist daily wear and tear.
- New corner guards protect the most vulnerable parts of the device.
- Dual layer screen protection with anti-scratch coating.



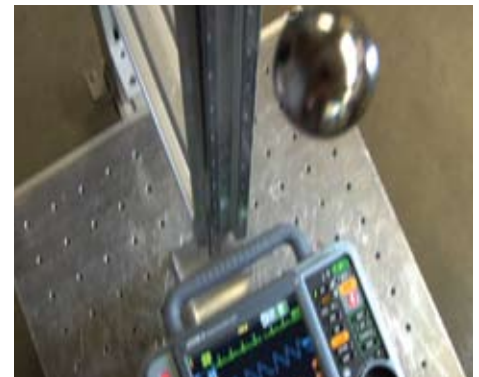
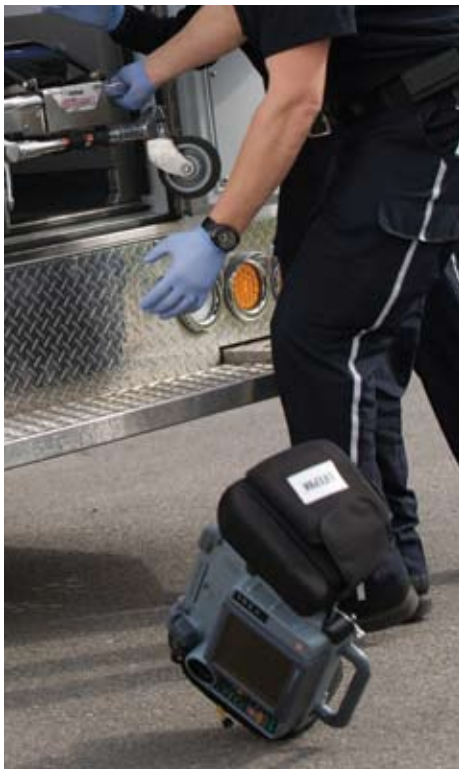
“I don’t want to admit it, but these things get dropped all the time. They roll off the fire engines occasionally. They get dropped off of the cot when transferring patients.”

Darren Parr
Paramedic Captain and LIFEPAK user

The LIFEPAK 15 Monitor/Defibrillator Sets the Standard for Ruggedness

The LIFEPAK 15 monitor/defibrillator has been rigorously tested to operate in the harsh conditions faced by hospital and rescue personnel.

Test or Standard	What Happens	Real-Life Equivalence
Freefall Drop	The device is dropped on six sides onto a steel plate from 30 inches high.	It is not uncommon for a monitor/defibrillator to be dropped on the way to the emergency scene or fall off a cot during transport.
Impact	A 2-inch, 1.2 lb. steel ball is dropped from 30 inches onto the enclosure, connectors, keypads and display screen of the device.	Even if you slam the device directly into a door handle or the corner of your rig, it won't break.
Exposed Features Impact	5 lb. steel impact weight is dropped from 30 inches to impact each side of the new therapy connector.	There is constant movement of plugging in and unplugging cables. Cables knock against a wall while plugged in and while carrying or during transport.
Material ingress – Monitor/Defibrillator and Lithium-ion Batteries The IP rating signifies resistance to moisture and dust particles	IP44 - Protection from objects 1 mm diameter or larger; protection from splashing water.	Sealed to work in a steady wind and rain storm, resist fluid splashes in clinical settings, and repel dirt and water when set on the ground outside.
Vibration The test simulated vibration levels found in ground vehicles, propeller aircraft, helicopters	Vibrating of the device at various frequencies tests for wear and tear and parts durability in vibrating/shaking environments.	Shaking of the device is unavoidable during ground transport or airlift. It must withstand high levels of vibration while operating.
Cable Impulse Pull Test	90 impulses at up to 8.8 ft.-lbs. on therapy and ECG cables.	Users may accidentally yank or trip on cables when device is in use.



IP Rating Comparison

LIFEPAK 15 Monitor/Defibrillator	IP44
Philips® HeartStart MRx Monitor Defibrillator¹	IP24
ZOLL® E-Series® Defibrillator²	IP34

Definition of IP Ratings

First Number

- IP1x = protection from objects 50 mm diameter or larger
- IP2x = protection from objects 12.5 mm diameter or larger
- IP3x = protection from objects 2.5 mm diameter or larger
- IP4x = protection from objects 1 mm diameter or larger
- IP5x = dust-protected
- IP6x = dust-tight

Second Number

- IPx1 = protection from vertical dripping water
- IPx2 = protection from dripping water, tilted up to 15 degrees
- IPx3 = protection from spraying water
- IPx4 = protection from splashing water
- IPx5 = protection from jetting water
- IPx6 = protection from powerful jetting water
- IPx7 = protection from temporary immersion
- IPx8 = protection from continuous immersion



The LIFEPAK 1000 was the first automated external defibrillator (AED) in space. It is deployed on the International Space Station (ISS) ready to save the lives of crew members in case of a cardiac emergency. It meets the rigorous NASA durability requirements with an IP55 rating — the highest for any AED — signifying maximum protection from external elements. It also meets the ISO standard for resistance to moisture and dust particles.

“They drop them occasionally but they are pretty resilient.”

Nikki Brodowy
EMS Captain and LIFEPAK user



While Philips® drops the MRx® on all faces onto a steel surface at 30 inches with a carry case³, we drop the LIFEPAK 15 monitor/defibrillator onto a steel plate on all six sides from 30 inches WITHOUT a carry case.

REFERENCES

- 1 MRx Product Data Sheet posted on www.philips.com as of 09/23/08
- 2 ZOLL E-Series Operator's Guide on www.zoll.com as of 09/23/08
- 3 Philips MRx M3536A Instructions for Use on www.philips.com as of 09/23/08

All statements and information in this brochure are valid as of February 2009.

For further information, please contact your sales representative at 800.442.1142 or visit our website at www.physio-control.com



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