Thinklabs ds32a Product Cut Sheet

Manufacturer	ThinkLabs Inc.
Manufacturer Address	6571 South Pontiac Court Centennial, CO 80111
Manufacturer Web Address	www.thinklabsmedical.com
Distributor	ThinkLabs Inc.
Model Name	Rhythm ds32a High Resolution Stethoscope with EmD100 Diaphragm
List Price	$229.00
Our Price	$229.00
FDA Classification	Class II
CE/UL	None
Power Supply	2 AAA
Technical Support Options	Do not attempt to modify or repair this device yourself. If you experience problems send the device to ThinkLabs for repair. See the support page at www.thinklabsmedical.com, service@thinklabsmedical.com or call 303-521-5023.
Warranty	1 year from invoice date against manufacturing or material defects.
Temperature Range Storage	-4°F – 110°F; avoid heat, cold and humidity.
Temperature Range Usage	Room temperature; avoid heat, cold and humidity.
Product Dimensions	29 inches
Weight	6 oz./180g

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Battery Life	Variable, depends on use. Diaphragm mode consumes more power. Intentionally not provided by the manufacturer.
Battery Replacement Period	Replace batteries the within the day the indicator light is noticed on.
Low Battery Indicator	Yes, red light indicated on chest piece.
Digital or Amplifying or Both	Amplifying
Amplification Amount	50X, Amplify button with volume dial 1-10.
Output Options (Audio/USB/Serial)	Audio, proprietary Cable required, 2.5mm ($25)
Wireless/Bluetooth	No
Network Transfer Options	None
Frequency	15Hz – 20,000 Hz
Frequency Bell	Unavailable from manufacturer
Frequency Diaphragm	Unavailable from manufacturer
Frequency Extended	N/A, only bell and diaphragm modes.
Ambient Noise Reduction	Yes, acoustic aperture ring manually rotated open and closed and 2nd signal processing. Can turn off by pressing & holding the bell/diaphragm button 3 seconds.
Replacement Parts	Available from the manufacturer
Latex Free (Yes/No)	Yes
Diaphragm (Hardware/Electronic)	Electronic
Ear Tips/Headphones/Both	Ear Tips, binaurals. User also has the ability to plug headphones or a second stethoscope into the audio output jack for an additional headset.
Ear Tip Characteristics	Replaceable, proprietary, oddly shaped, silicone tips.
Tubing Length	15 inches
Volume Adjustment (Yes/No)	Yes
Auto Off/Power Save Options	Yes. After 120 seconds, programmable.
Care/Cleaning/Maintenance	Use only AAA Alkaline batteries. The stethoscope will not function if battery voltage is depleted. Use Fresh batteries and replace when indicated. Do not sterilize this device or immerse it in liquids. Clean using alcohol swabs or non-abrasive cloth lightly dampened with alcohol or water. Avoid use/storage in very high humidity, high temperature or dusty conditions. Leaving the device in excessively hot or cold vehicles is NOT recommended. This stethoscope has been tested to be resistant to electromagnetic interference (EMI & ESD). However, it may be susceptible to stray electromagnetic fields. If unexpected sounds are heard, change location, or move away from possible sources of interference, such as cellular telephones or wireless devices. Avoid tightly folding the unit and placing it in a pocket. Avoid

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	excessive force on parts and dropping, damage could result. Remove batteries if device is not to be used for a period of months.
Number of Parts	1 (unit)
Integrated Software Package (Capture/S&F/Analysis/Diagnosis)	Yes. (Capture/S&F/Analysis/Diagnosis)
Accompanying Software Name	ThinkLabs Phonocardiology Software
Additional Hardware Features (Visual Waveform, SpO2, HR, Visual Indicators)	No
Carrying Case	No
Functional Aspects	
Powering Up (How?)	Press and hold the button, while looking at chest piece.
Power Indicator Light	Yes. LED lights up on the head of the chest piece.
Type of On/Off Switch	Button on Tubing. Clearly labeled, but hard to view while wearing headset. Accidently pressed when trying to press amplify button.
Modes Available	Bell & Diaphragm
Changing Modes	Mode switch button located on tubing at base of binaurals, hard to see while using or wearing. Indicator lights located on head of chest piece. Icons unclear.
Changing Volume	Press amplify button and turn dial from 1-10 to adjust sound level. Dial located on back of unit, impossible to see when wearing stethoscope.
Mute Button	Yes.
Auto Shut Off	Yes. 2 minutes after last button push. User programmable 2-5 minutes.
Powering Off	Distinct button located on tubing. Difficult to see when wearing. LED indication on head of chest piece, clearly indicates when off.
Retained Settings	Yes (Bell, Diaphragm & amplification setting) LEDs indicate current setting. User can also preset power-on mode. To utilize, press and hold power button 5 seconds on power up.
Recording Options	None
Does it Require Separate Send/Receive Unit	No
Interface	Utilizes a proprietary audio output cable.
Pros	Single Stethoscope Unit. Does a pretty good job of amplifying. Ear tips are comfortable. Has Bell and Diaphragm functionality with visual indicators.
Cons	With stethoscope in ears, can’t see buttons to turn the unit on and off. Easily mistakable button selection. Turning on stethoscope while in ears produces a loud popping noise. Ear tips broke off during normal use during the testing process. Inconsistencies in powering up related to button

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	pressing. Visual displays are confusing when switching between Bell and Diaphragm mode. Only works in 2 minute intervals.
Instructional Manual	Clear, concise. Contains a getting started guide with pictures.
PDF Version Available Online	Yes

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