

# CARDIOLINE

## HD+

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### General overview

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HD+ is a wireless ECG acquisition module, to be primarily used as common ECG front-end for PC/tablet (Windows/MAC OS/other) standard platforms (both for Resting ECG and Stress ECG applications).

HD+ uses a standard Bluetooth data transmission technology to transmit 12-lead ECG data over a proximity range, providing perfect electrical insulation and freedom of movement for the patient.

HD+ is light and compact, comfortable to wear, minimizing motion artifacts caused by traditional electrodes and patient cables.

HD+ offers uncompromised, full diagnostic ECG acquisition – meeting or exceeding the most severe standards used in clinical and diagnostic applications (AAMI, ANSI, AHA, ACC).

HD+ uses a LED indicator to comfortably monitor the link status (off when unit is powered down, blinking when unit is attempting to connect with the receiver, steady when unit is connected with the receiver).

HD+ uses a programmable key to send macro commands to the receiving system (i.e. acquire and print an ECG).

Low-power technology allows continuous usage of the device for more than 10 hours (from full battery charge).



### Main features

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- Comfortable, lightweight, wireless full diagnostic 12 lead acquisition unit,
- Extremely high signal quality, very low noise. Exceeds the most severe standards for ECG acquisition (AAMI, ANSI, AHA, ACC)
- Highly sophisticated technology for optimal Pace Maker recognition
- Extremely easy to use, 1 button, 1 led
- Water and dust protected and drop proof (1 mt)
- Low power consumption technology allows more than 10 hours (or more than 500 ECGs) continuous usage
- To be used with Cardioline Touch ECG and Cardioline HD+ stress

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## Technical specifications

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Operating systems compatible.....	Windows 7 pro, Windows 8 pro, 32/64 bit
ECG channels.....	12-lead (I, II, III, aVR-L-F, V1-6)
CMRR.....	115 dB
Sampling frequency.....	up to 1000 samples/second/channel for analysis/storage
A/D conversion.....	24 bit
Output data resolution.....	20 bit, < 1uV/LSB
Input range.....	+/-400mV @ < 1uV/LSB
Bandwidth.....	up to 0.05 – 300 Hz, according to sampling frequency
Defibrillator protected.....	AAMI/IEC standards
Pacemaker detection.....	hardware detection coupled with convolution digital filtering
Electrode fail detection.....	independent on all electrodes
Wireless data transfer.....	Bluetooth 2.0+ with secure pairing
Electrode cables.....	10-wire, single connector, replaceable
Action key.....	1 key, programmable by user/application
Battery.....	2xAAA standard cells
Dimensions.....	115 x 65 x 15 mm
Weight.....	< 90 g with batteries
Water resistance.....	IP40 / IP42 with silicone shell
Shock.....	1 m any edge, corner or surface
Certification	CE0476