



## Technical Specifications

### General

The AutoPulse NXT system must only be used in cases where chest compressions are likely to help the patient and as an adjunct to manual CPR when effective manual CPR is not possible (e.g., during patient transport or extended CPR when fatigue may prohibit the delivery of effective/consistent compressions to the victim, or when insufficient personnel are available to provide effective CPR).

**Intended Patients:** The system is intended for use on patients with the following physical characteristics:

- Chest circumference between 30 and 56 in (76 and 142 cm)
- Minimum chest width of 9.8 in (25 cm)
- Maximum weight of 400 lb (181 kg)

### AutoPulse NXT Platform:

**Dimensions (L x W x H):** 29 in x 17 in x 2.9 in (73.7 cm x 43.2 cm x 7.6 cm)

**Weight (excluding battery):** 18.3 lb (8.3 kg); battery weight is 3.68 lb (1.67 kg)

**Cleaning:** To clean the surfaces of the system, wipe with one of the following products:

- 70% Isopropyl alcohol
- Chlorine bleach solution (up to 5,000 ppm)

### System Operating Parameters

**Chest displacement:** Equal to 20% reduction in anterior-posterior chest depth

**Physiological duty cycle:** 50 ± 5%

**Compression rate:** 80 ± 5 compressions per minute

### Compression modes:

- 30:2 (30 compressions with a three-second ventilation pause)
- Continuous compressions

### Operations

**Special Functions:** Circumferential compressions automatically sized to every patient

**Compression Modes:** Continuous or 30:2 mode may be selected as default startup mode and changed during care with the push of a button.

### Ventilation Rate:

- In continuous mode, the platform beeps at the start of every eighth compression, guiding ventilations at a rate of 10 breaths per minute. During continuous mode, the platform does not pause to allow for manual ventilation.
- In 30:2 mode, the platform beeps every 28th, 29th, and 30th compression to warn of the upcoming pause for ventilations.

**Battery Status:** The status of the battery's charge is visible in the charger and in the platform

**Battery Maintenance:** Battery charger has two bays and will continuously charge itself and any batteries in its bays when in use.

**Device Management:** User control panels located on both sides of the platform

### Safety

**Safety Classification:** Meets IEC 60601-1 – internally powered equipment, Type BF-Defibrillation Proof, portable, continuous operation

**Alerts:** 1 beep at 10 seconds, 2 at 20 seconds, and so on up to continuous beeps at one minute when compressions are paused to alert providers that no CPR is in progress.

### Environmental

#### Platform

**Operating temperature:** 0° C to 45° C (32° F to 113° F); 10° C to 40° C (50° F to 104° F) preferred

**Storage/transport temperature:** -20° C to 60° C (-4° F to 140° F)

**Relative humidity:** 15% to 95%, non-condensing

#### Atmospheric pressure:

- 683 mmHg to 428 mmHg (91 kPa to 57 kPa); 3,000 ft to 15,000 ft (914 m to 4,572 m) operating in 0° C to 40° C (32° F to 104° F) environment
- 795 mmHg to 683 mmHg (106 kPa to 91 kPa); -1,000 ft to 3,000 ft (-305 m to 914 m) operating in 0° C to 45° C (32° F to 113° F) environment

**Ingress protection:** Ingress protection as defined by IP44 per International Electrotechnical Commission IEC 60529

**Vibration:** Meets IFC 60068-2-64 Basic Environmental Testing, Broadband Random Vibration Test Fh +20Hz to +2,000 Hz, +0.05 g<sup>2</sup>/Hz; Meets IEC 60068-2-6 Environmental Testing, sinusoidal Vibration Test Fc, +10Hz to +500 Hz + 50m/s<sup>2</sup>

**Shock:** Meets IEC 60068-2-27 Basic Environmental Testing – Shock (50 g, 11 ms pulse, half sine wave)

#### Drop:

- IEC 60068-2-31 Basic Environmental Testing, Procedure 1; tested at 0.5 m
- EN 1789 Medical Vehicles and their equipment; tested at 0.75 m

## Battery

**Type:** Rechargeable Lithium-Ion (LiFePO<sub>4</sub>)

**Size (L x W x H):** 143 mm x 215 mm x 62 mm (5.6 in x 8.5 in x 2.4 in)

**Weight:** 3.68 lb (1.67 Kg)

**Battery voltage (nominal):** 39.6 V DC

**Capacity:** 2,600 mAh (typical)

**Current:** 20 A continuous, 60 A peak

**Initial battery capacity (nominal patient):** 30 minutes (typical expected runtime with a nominal patient using a new battery)

**Maximum battery charge time:** Less than two hours

**Measurement cycle time:** 5 to 10 hours

**Recommended replacement interval:** 5 years from date of manufacture

**Operating temperature:** 0° C to 45° C (32° F to 113° F) ambient temperature when installed in device

**Charge temperature:** 0° C to 45° C (32° F to 113° F); 10° C to 30° C (50° F to 86° F) preferred

**Storage/transport ambient temperature:** -20° C to 60° C (-4° F to 140° F) for up to one week. Do not store the battery for more than one month at temperatures above 35° C.

Prolonged exposure to high storage temperatures results in reduced battery life.

**Atmospheric pressure:** 795 mmHg to 428 mmHg (106 kPa to 57 kPa); -1,000 ft to 15,000 ft (-305 m to 4,572 m)

**Enclosure protection:** Meets IP44 per IEC 60529  
**Shock:** Meets IEC 60068-2-27 Basic Environmental Testing Procedures – Shock (50 g, 11 ms pulse, half sine wave)

**Vibration:** Meets IEC 60068-2-6 Basic Environmental Testing Procedures (10 to 150 Hz, 10 m/s<sup>2</sup>); meets IEC 60068-2-64 Basic Environmental Testing Procedures – Random Vibration Broad Band – General Requirements (f1:20, f2:2,000, ASD 0.05)

**Free fall:** Meets IEC 60068-2-31 Basic Environmental Testing Procedures – Free Fall – Procedure 1

**Electrostatic discharge:** Meets IEC 61000-4-2, Level 4  
**Radiated emissions:** Meets CISPR 11/EN55011, Group 1, Class B, FCC part 15, Class A

**Radiated immunity:** Meets IEC-61000-4-3, 80-2500 MHz, Level 3

**Safety:** Meets IEC-60601-1

## Battery Charger

**Size (L x W x H):** 29.1 cm x 28.4 cm x 18.2 cm (11.5 in x 11.2 in x 7.2 in)

**Weight:** 3.67 kg (8.1 lb)

**Operating input:** 100 to 240 V AC

**Operating input frequency:** 50/60 Hz

**Input current:** 5.0 Amp

**Operating temperature:** 0° C to 40° C (32° F to 104° F)

**Storage temperature:** -20° C to 60° C (-4° F to 140° F)

**Relative humidity:** 15% to 95%, non-condensing

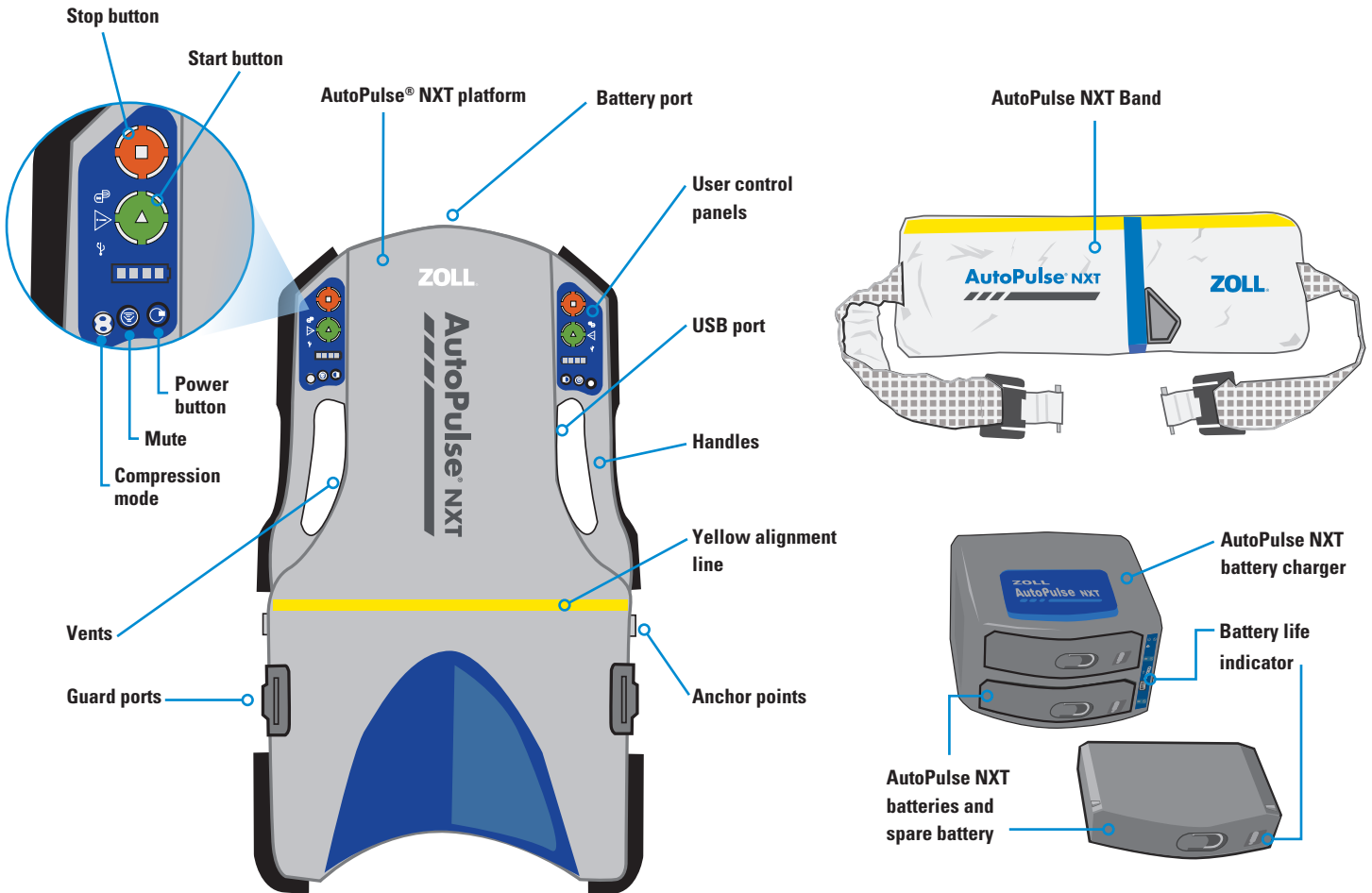
**Atmospheric pressure:** 795 mmHg to 428 mmHg (106 kPa to 57 kPa); -1,000 ft to 15,000 ft (-305 m to 4,572 m)

**Charging temperature:** If possible, charge the battery at room temperature (10° C/50° F to 30° C/86° F).

**Maximum battery charge time:** Less than 2 hours at 25° C (77° F)

**Radiated emission:** Meets CISPR 11/EN55011, Group 1, Class B; FCC part 15, Class A

**Safety:** Meets IEC/EN60601-1



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