



Wintergreen Fire and Rescue Standard Administrative Policy	
Subject:	AutoPulse Usage
Reference Number:	EMS 03-016
Effective Date:	8-May-19
Last Revision Date:	
Signature of Approval	Curtis Sheets, Chief

Purpose:

To provide guidance on the use and maintenance of the Zoll AutoPulse CPR device.

Description:

The AutoPulse is an automated, portable, battery-powered CPR device, which provides chest compressions as an adjunct to performing manual CPR. Use of the AutoPulse is intended to reduce the impact of rescuer fatigue and will enable the rescuer to address additional patient needs.

The AutoPulse has the following operating parameters:

- Chest displacement: equal to 20% reduction in anterior-posterior chest depth.
- Consistent compression rate and depth.
- Physiological duty cycle: fixed at 50 ± 5%
- Standardized 30:2 or 15:2 compressions (30 or 15 compressions followed by two consecutive 1.5 second ventilation pauses) or continuous compressions (user selectable).

Contraindications:

- Patients with traumatic injury
- Patients under the age of 18
- Patient’s parameters that are not within the AutoPulse Operating Parameters:

Patient Parameter	AutoPulse Specifications
Patient chest circumference permitted	29.9 to 51.2 in (76 to 130cm)
Patient chest width permitted	9.8 to 15 in (25 to 38 cm)
Maximum patient weight permitted	300 lbs. (136 kg)

Indications:

The AutoPulse is intended to be used as an adjunct to manual CPR, on **adult** patients only (≥ 18 years), weighing < 300 lbs., in cases of non-traumatic clinical death as defined by a lack of spontaneous breathing and pulse. The AutoPulse must be used only in cases where manual CPR would normally be initiated.

Warnings:

Manual cardiopulmonary resuscitation (CPR) should start immediately and should not be postponed by deployment of the AutoPulse System.

The use of ONLY the AutoPulse Platform is not intended for carrying a patient. The AutoPulse Platform with the AutoPulse Quick Case is to be used to carry or transport the patient. During transport, regular checks of the patient's alignment should be performed.

Failure to properly position the LifeBand Chest Compression Assembly (CCA) at the patient's armpit line may cause injury to the patient.

Do not place or position the patient on the AutoPulse Platform in either a facedown orientation or on the patient's side.

If a system error occurs during active operations, immediately revert to manual CPR.

Procedure:

1st provider assesses patient: Checks for no breathing or only gasping, checks for carotid pulse, if no breathing or pulseless then begin chest compressions (CPR)

Placement:

- 2nd provider should place the AutoPulse device at head of patient, open buckles on quick case, insert battery, power on device, and separate LifeBand
- 2nd provider should then place one foot at groin of patient and lift patient by arms into a seated position to allow for placement of the AutoPulse
- 1st provider should pause CPR and slide AutoPulse under patient torso aligning armpits to the yellow line of platform
- 2nd provider lowers patient onto device
- 1st provider should continue CPR
- 2nd provider should remove all clothing from torso (both front and back) to ensure skin-to-platform contact
- 2nd provider **attaches the shoulder restraints to keep the patient properly aligned** on the AutoPulse platform (This is new for AutoPulse usage at Wintergreen Rescue Squad and shall be completed for all patients). Shoulder restraints shall be left attached to the device at all times unless they need to be cleaned, but should be immediately placed back on the device.
- 2nd provider can then secure chest bands, assuring bands are not twisted
 - Lift up and fully extend both chest bands after securing together
 - Lay secured band on patient's chest (**DO NOT** hold band up prior to pressing continue)
 - Check lateral and vertical patient alignment
 - Press CONTINUE (green button)
 - Press START (green button) to begin continuous compressions
- 1st and 2nd provider can then pull yellow handles at bottom of quick case to extend bag past bottom of patients feet to aid in carrying patient if required
- 2nd provider can then place defibrillation pads on the patient and perform a quick look at the monitor to determine if defibrillation is indicated. Reference 03-017 Zoll X-Series for information and guidelines on patient monitoring.

Movement:

- The head immobilizer assists in keeping the patient's head from moving especially when combined with cervical collar.

During transport:

Regular checks of the patient's alignment should be performed.

Notes:

Keep interruptions in compressions to a minimum

Prior to use, always check the AutoPulse Quick Case for any damage.

Troubleshooting:

For Fault/User Advisory

- Lift up and fully extend both chest bands.
- Check both lateral and vertical patient alignment.
- Verify that chest bands are not twisted, are 90 degrees to the Platform and are free of obstructions.
- Press RESTART (green button) and follow on-screen instructions to begin compressions.

If you cannot rectify problem immediately open chest bands and revert to manual CPR**Cleaning the AutoPulse:**

- Remove and dispose of Life Band.
- Wipe all the surfaces of the AutoPulse Platform free of foreign matter and spills with a disinfectant or bactericidal wipe.
- Check the vents to ensure that they are free and clear of any obstructive matter.

Caution: **Do NOT submerge** the AutoPulse in liquid. Ensure that the AutoPulse is dry before storing.

Cleaning the AutoPulse Quick Case:

Hand washed by cleaning agents and machine-washed utilizing light-duty detergent and water at a maximum temperature of 86 F. Hang-drying the AutoPulse Quick Case is recommended to avoid damage to the waterproof coating.