

BRADPOLE PARISH COUNCIL

AUTOMATED EMERGENCY DEFIBRILLATOR (AED) POLICY & PROCEDURE

1. Introduction

This document provides details of the Bradpole Parish Council Automated External Defibrillator (AED) installation and arrangements for its deployment and ongoing maintenance as well as acting as a reference 'handover' document for occasions when Bradpole Parish Council councillors and village support personnel change.

The AED was purchased in May 2021 from funds raised by the Bradpole Village Fete Committee and match funding provided by Bradpole Parish Council. As a legally constituted local authority, Bradpole Parish Council agreed to assume responsibility for the AED which for insurance purposes has been included as an asset on the Parish Council Asset Register. Funding for the future maintenance of the AED will be provided jointly by the Fete Committee and Bradpole Parish Council.

2. Purpose of an AED

Sudden Cardiac Arrest (SCA) is a condition that occurs when the electrical impulses of the human heart malfunction, causing a disturbance in the heart's electrical rhythm called ventricular fibrillation (VF). This is an erratic and ineffective electrical heart rhythm which causes complete cessation of the heart's normal function of pumping blood, resulting in sudden death. The most effective treatment for this condition is the administration of an electrical current to the heart by a defibrillator (AED), delivered within a short space of time of the onset of VF.

An AED is used to treat victims who experience sudden cardiac arrest. It is only to be applied to victims who are unconscious, without pulse and no signs of circulation or normal breathing. The AED will analyse the heart rhythm and advise the operator if a shockable rhythm is detected. If a shockable rhythm is detected, the AED will charge to the appropriate energy level and advise the operator when to deliver a shock.

The Resuscitation Council's (UK) advice regarding SCA is that electrical defibrillation is well established as the only effective therapy for cardiac arrest caused by ventricular fibrillation (VF) or pulseless ventricular tachycardia (VT). The scientific evidence to support early defibrillation is overwhelming; the delay from collapse to delivery of the first shock is the single most important determinant of survival. If defibrillation is delivered promptly, survival rates as high as 75% have been reported. **The chances of successful defibrillation decline at a rate of about 10% with each minute of delay.** Basic life support e.g. cardiopulmonary resuscitation (CPR) will help to maintain a shockable rhythm but it is not a definitive treatment.

3. AED Description and Installation

The AED is a **ZOLL AED 3 Automatic** model that is designed to be used for both adult and child victims of Sudden Cardiac Arrest (SCA). It uses audio and visual prompts to guide the rescuer through a resuscitation sequence that may include defibrillation and/or cardiopulmonary resuscitation (CPR). The ZOLL AED 3 Automatic model automatically initiates the shock without rescuer intervention.



The **ZOLL AED 3 Automatic** model is housed in a locked, alarmed, heated defibrillator cabinet which is fed by a dedicated electrical supply from the village hall.

The AED and cabinet are located on the outside entrance wall next to the steps that lead up to the village hall located at:

Bradpole Forster Village Hall, Higher Street, Bradpole, Bridport, Dorset DT6 3JA.

The AED and cabinet were installed free of charge by H Leaf and Sons Ltd and R N Stephenson Electrical Contractors Ltd.

The AED is registered with The Circuit, the national defibrillator network that connects defibrillators to NHS ambulance services across the UK so that in those crucial moments after a cardiac arrest, they can be accessed quickly to help save lives. Via this registration, the defibrillator is also connected to the South Western Ambulance Service.

To gain access to the AED, the user must first dial 999 to obtain the keypad door code to the AED cabinet. Under no circumstances should individuals divulge the door code to other members of the public as some medical emergencies do not require an AED and the user should be guided by the 999 call operator.

Defibrillator Type: ZOLL AED 3 *Automatic*
Serial Number: AX20C049827
Date Installed: July 2021

Cabinet Type: Durafib Outdoor Heated Polycarbonate Cabinet (Locked and Alarmed).
(The keypad door code for the cabinet is held by those nominated individuals assigned with the responsibility for overseeing the inspection and maintenance checks of the AED, the Parish Council Clerk, Deputy Clerk, Chairman and Vice Chairman. The code must not be put in the public domain).

Location: Bradpole Forster Village Hall, Higher Street, Bradpole, Bridport, DT6 3JA.

4. Indications for Use

The ZOLL AED 3 defibrillator is indicated for use when a suspected cardiac arrest victim has an apparent lack of circulation as indicated by:

- Unconsciousness
- Absence of breathing, and
- Absence of pulse and other signs of circulation.

The ZOLL AED 3 defibrillator is indicated for adult and paediatric (child) patients.

5. Contraindications for Use

Do NOT use the ZOLL AED 3 defibrillator when the patient is:

- Conscious
- Breathing, or
- Has a detectable pulse or other sign of circulation.

6. Supervision

Bradpole Parish Council shall ensure that:

- Training on the use of the supplied AED is given to nominated individuals;
- Inspection and maintenance checks have been allocated to individuals and these are carried out on a monthly;
- Training, testing and maintenance records are kept.

7. Training and Authorisation

Although the AED is fully automated and can therefore be used by any member of the public in an emergency situation following the instructions given by the equipment, training will be organised for those nominated individuals assigned with the responsibility for overseeing the inspection and maintenance checks of the AED. It is Bradpole Parish Council's preference that only those trained in the use of the equipment should inspect and maintain it.

However, when it comes to use, as the AED is fully automated, it can be used by any member of the public in an emergency situation following the instructions given by the equipment.

8. Maintenance - Automatic Self Tests

Bradpole Parish Council own the AED but the Bradpole Village Fete Committee have appointed persons to carry out monthly checks on the equipment to ensure that it can be used when called upon.

The ZOLL AED 3 defibrillator requires little maintenance. It automatically performs a self-test every time it is turned on or a battery installed and it also performs a routine self-test every 7 days. The ZOLL AED 3 defibrillator performs the following self-tests to verify unit integrity and its readiness for emergency use:

- Battery Installation Self-Test - automatically, after battery pack is installed or replaced.
- Power On Self-Test - automatically, whenever the AED is turned on.
- Manual Self-Test - by pressing and holding the AED's On/Off button for at least 5 seconds.
- Automatic Self-Test - once every 7 days when the AED is stored with battery pack installed.
- Automatic Monthly Self-Test - once per month when the AED is stored with the battery pack installed.

When the defibrillator successfully completes its automatic self-tests, the device displays a green check (✓) in the status indicator window to show that all tests passed and that it is ready for use. If the defibrillator does not display a green check in the status indicator window following the completion of any self-test, the ZOLL AED 3 defibrillator is not ready for use and may be defective.

9. Troubleshooting

The following table lists error indications that may occur on the ZOLL AED 3 defibrillator and the associated corrective action:

Technical Problem	Recommended Action
<i>UNIT FAILED</i> prompt	Initiate manual self-test by pressing and holding the On/Off button for more than 5 seconds. Check to see if the defibrillation pads cable is attached properly to the defibrillator or replace the defibrillation pads. Cycle power on the defibrillator by turning the AED off and then on again. Replace the battery pack. If the defibrillator still does not operate correctly, remove the AED from service and contact ZOLL.
Beeping noise when AED is off	Check to see if the defibrillation pads cable is attached properly to the defibrillator or replace the defibrillation pads. Remove the defibrillator from service and replace the battery pack. If beeping continues, contact ZOLL.
Loss of audio prompts or display	Cycle power on the defibrillator by turning the AED off and then on again. If the AED continues to fail, contact ZOLL.
Green check (✓) does not appear in the status indicator window	Initiate manual self-test by pressing and holding the On/Off button for more than 5 seconds. Check to see if the defibrillation pads cable is attached properly to the defibrillator or replace the defibrillation pads. Replace the battery pack. If the defibrillator fails the test again, remove the AED from service and contact ZOLL.
<i>CHANGE BATTERY</i> prompt	Replace the battery pack.
<i>PLUG IN PADS CABLE</i> prompt	Check cable connection between defibrillation pads and the defibrillator.
<i>ATTACH CORRECT DEFIB PADS</i> prompt	Incompatible defibrillation pads are connected to the AED. Use one of the following pads: <ul style="list-style-type: none">• CPR Uni-padz• CPR-D-padz• CPR Stat-padz• Stat-padz II• Pedi-padz II• OneStep Basic Electrodes with Green Connector• OneStep CPR A/A Electrodes with Green Connector• OneStep Paediatric Electrodes with Green Connector
<i>ANALYSIS HALTED. KEEP PATIENT STILL</i> prompt	Excessive artifact is detected during ECG analysis. The patient must be motionless during ECG analysis. Do not touch the patient during the analysis and keep the patient still. If you are using the defibrillator in an emergency vehicle, bring the vehicle to a halt before performing ECG analysis.
<i>RELEASE SHOCK BUTTON</i> prompt	Release the shock button, then press and hold the shock button (when button is illuminated) until discharge occurs. If the voice prompt continues, contact ZOLL.

The following table lists error indications that may occur on the Durafib Outdoor Heated Polycarbonate Cabinet and the associated corrective action:

Technical Problem	Recommended Action
Alarm does not sound when I open the door	Ensure alarm is not switched off. Ensure alarm is alarmed with the remote control.
Temperature display is displaying LL	LL indicates a loose lead. Tighten the power leads to the rear of the temperature display.
Cabinet lock siezes	Oil the lock with a high quality lubricating oil.

10. Contact Details

The ZOLL AED 3 defibrillator and external cabinet was purchased by Bradpole Parish Council from Heartbeat Trust UK in May 2021. Heartbeat Trust UK provides a 7 year care package as detailed below:

HBT Care Package:

- 7 year insurance against vandalism or theft (loan of defibrillator whilst repaired or new defibrillator);
- Replacement adult pads after 5 years or whenever used during 7 year period (max. 4 pads);
- Replacement batteries after 5 years or whenever used during 7 year period (max. 4 sets);
- 7 year guarantee on defibrillator;
- 7 year guarantee on external cabinet.

The 7 year HBT care package runs from May 2021 to May 2028. All problems, faults and replacement items should be made via the Clerk/Deputy Clerk of Bradpole Parish Council who can be contacted via email at: bradpole@dorset-aptc.gov.uk

UK office and contact details for ZOLL Medical UK:

ZOLL Medical UK Ltd	Tel: 01928 241 700
9 Seymour Court,	Email: customerservice-uk@zoll.com
Tudor Road, Manor Park,	www. Zoll.com
Runcorn, Cheshire	
WA7 1SY	

The power supply to the cabinet was installed by R N Stephenson Electrical Contractors Ltd on 17th July 2021. (Minor Electrical Installation Works Certificate Serial Number: 514496). Contact details:

R N Stephenson Electrical Contractors Ltd
Unit 4, Magdalen Works
Magdalen Lane,
Bridport, Dorset
DT6 5AA
Tel: 01308 458499

11. Inspection and Maintenance

AEDs are sophisticated medical devices that are designed for years of service, but they require regular inspections and basic care to remain in proper working condition. This includes visually inspecting the AED regularly to confirm its readiness status, storing it in a temperature-controlled area, and replacing consumables such as batteries and electrode pads to comply with expiration dates. Taking these simple steps will extend the life of the AED and ensure it is ready when needed.

Perform Routine Visual Inspections

It is important to regularly inspect the AED to ensure that it's in working order at all times. AEDs are designed to perform rigorous self-tests and indicate device readiness via an audio or visual status indicator. It is recommended that regular monthly visual inspections are performed to ensure the AED is ready for use when needed. ZOLL AEDs perform a series of automatic self-tests that regularly verify that the internal circuitry, battery, and pads are fully functional. In addition, ZOLL AEDs have a visual status indicator that reflects rescue readiness.

When and How to Clean the Unit

Following each use, the AED should be inspected, cleaned, and disinfected. A soft, damp cloth and 90% isopropyl alcohol or soap and water should be used to clean the unit; avoid using abrasive materials such as paper towels on the display or near the ports. Do not immerse any part of the AED in water.

Replaced Expired Pads and Batteries

The shelf life of batteries and pads typically last from two to five years. Most ZOLL consumables provide an industry-leading five-year life span. Strictly adhere to all expiration dates on consumables.

Routine Inspection and Maintenance Checklist

Regular inspections and proper care gives peace of mind knowing that the AED is in optimum working condition. Completing the following simple inspection and maintenance checklist on a monthly basis will ensure the AED will be ready when needed.

Adopted by Bradpole Parish Council: 7th October 2021

**Signed: Cllr C Baker
Chairman**

Bradpole Parish Council Monthly Inspection and Maintenance Checklist:

Before undertaking the inspection and maintenance check of the defibrillator cabinet and defibrillator, volunteers will need to:

1. Obtain the cabinet keyfob from the keybox located on the village hall wall;
2. Unlock the defibrillator cabinet using the keypad code;
3. Turn off the cabinet alarm using the cabinet keyfob;
4. Carry out the monthly inspection and maintenance checks as detailed below;
5. Sign off the checklist for the specified month;
6. Reset the cabinet alarm, lock cabinet and return keyfob to keybox.



Monthly Task (Month & Year)												
Check cabinet door opens correctly (code not to be divulged to the public).												
Check cabinet temperature is within the correct temperature range (0° - 50°).												
Check the AED unit is clean, undamaged, and free of excessive wear.												
Check the green status indicator shows confirming that the AED has passed its most recent self-test.												
Check the AED housing has no cracks or loose parts.												
Check the electrodes are present, sealed in their package, and within their expiration date.												
Check all cables are free of cracks, cuts, and exposed or broken wires.												
Check the battery is within its expiration date.												

If the cabinet or defibrillator shows a fault, it must be reported immediately to the Parish Clerk, Bradpole Parish Council:

Tel: 01308 422140 or Email: bradpole@dorset-aptc.gov.uk