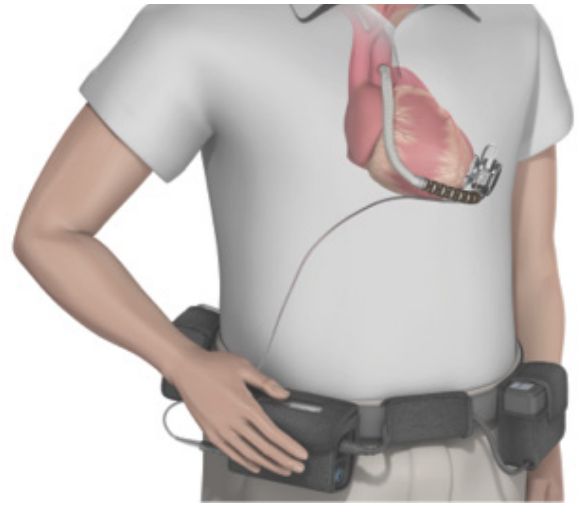




HEARTWARE™ HVAD™ CONTROLLER EXCHANGE QUICK GUIDE

1. Can I do CPR?

Yes, in the right clinical scenario. Chest compressions may pose a risk of dislodgement - use clinical judgment. After compressions are administered, confirm function and positioning of the pump.



2. Does the patient have a pulse with this device?

Likely they will not because it is a continuous flow device, however some patients may have a pulse.

3. Can the patient be defibrillated, cardioverted and paced while connected to the device?

Yes, you can defibrillate, cardiovert and externally pace per protocols and do not have to disconnect anything.

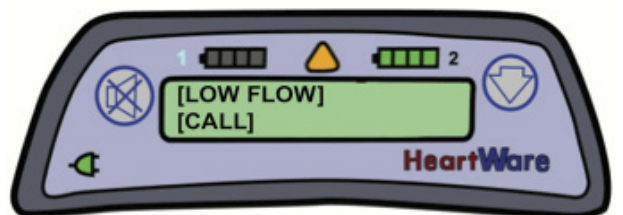


4. Can the same doses of emergency medications be given?

All ACLS drugs may be given at the same doses.

5. What type of alarm occurs in a low flow state?

A yellow triangle and intermittent audio alarm will sound. The controller display screen will show [Low Flow] [Call] message. Can give a small bolus of normal saline at provider discretion and transport to a VAD center.



6. What are acceptable vital sign parameters?

MAP targets should be 70-85 mmHg with a narrow pulse pressure.

7. Can I change the speed of the device?

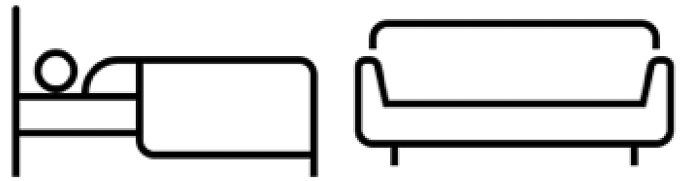
No, the device runs at a fixed speed.

8. What is the best way to transport a patient with this device?

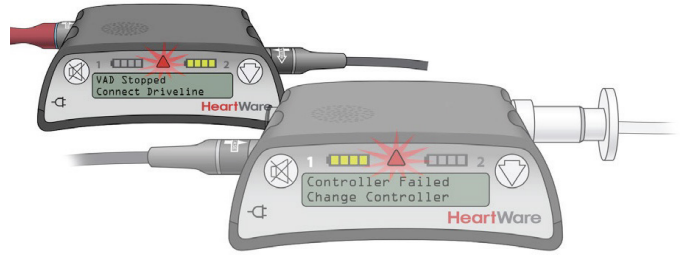
Patients and all their equipment are safe to travel by any means of transport including flight. Avoid twisting, kinking or pulling the driveline. Transport to a VAD center whenever possible. Allow LVAD trained caregiver to travel with patient whenever possible.

HEARTWARE™ HVAD™ CONTROLLER EXCHANGE QUICK GUIDE

1. Have the patient sit or lie down, pump will stop momentarily during exchange. Gather replacement controller and RED alarm adapter. (aka pacifier)

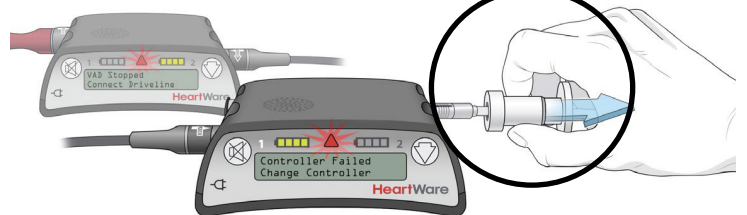


2. POWER: Disconnect power source from power port 1 on original controller and connect to power port 1 on replacement controller.

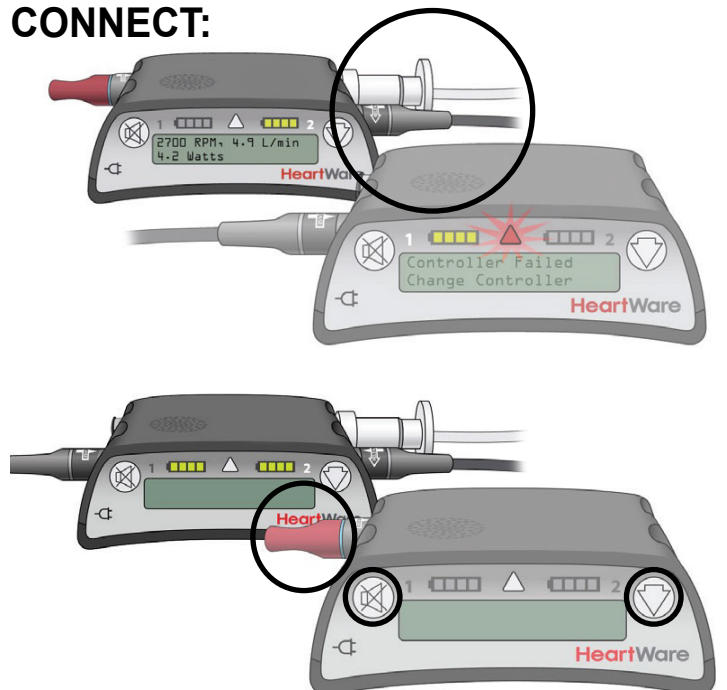


3. PUMP/PATIENT: Pull back driveline cover on original controller. Using two fingers, grasp silver area with "ridges" and pull driveline straight out. Insert driveline into replacement controller by aligning RED dots on controller and driveline. Verify pump has restarted by looking for pump parameters on display screen.

DISCONNECT:



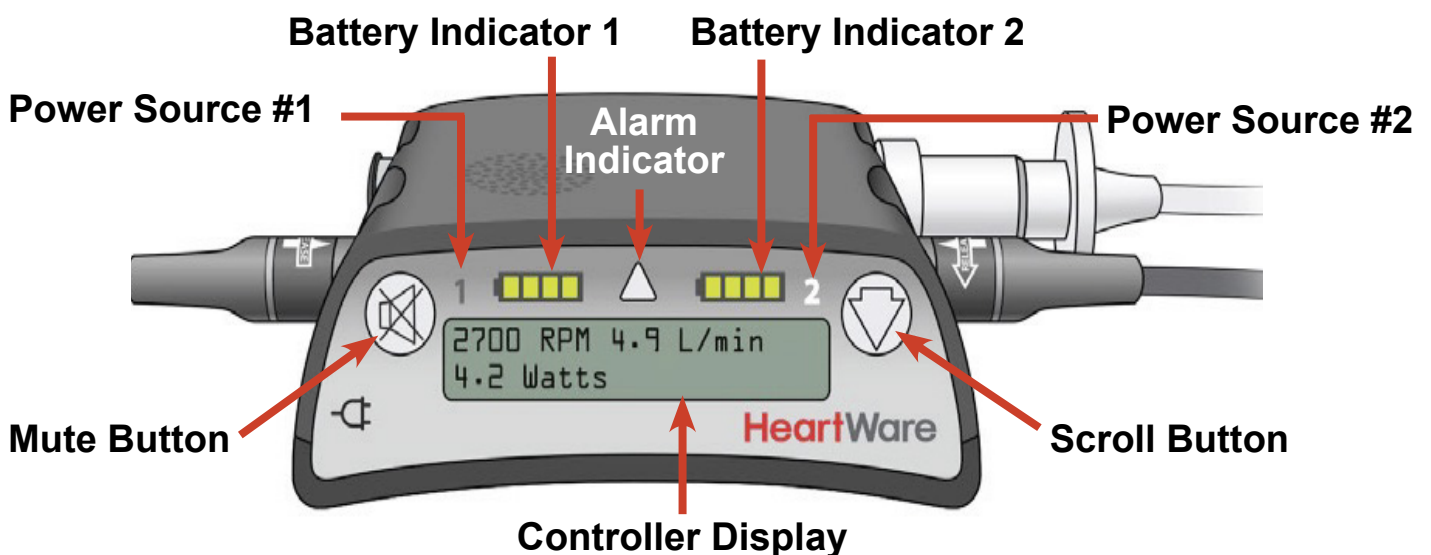
CONNECT:



4. PACIFY/PREVENT: Attach RED alarm adapter (pacifier) to BLUE port of original controller. If alarm adapter is not available press and hold the alarm mute and scroll buttons for 5 seconds until beep is heard then release.

5. POWER: Disconnect power source from power port 2 on original controller and connect to power port 2 on replacement controller.

CONTROLLER



International Consortium of Circulatory Assist Clinicians

This guide was created in 2008 by the innovation of VAD Coordinators from some of the largest and most successful VAD implantation hospitals across the globe. ICCAC has ensured that this document continues to be a current resource for not only emergency medical services but to all healthcare workers providing care to the mechanical circulatory support patient population. The purpose is to be a quick emergency guide and should not replace the manufacturers' Instructions For Use as the primary source of information for each device listed in this guide.