



- UCH/ENTERPRISE
- UCMC
- WCH
- DRAKE - LTCH
- DRAKE - BWP
- DRAKE - SNF
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- AMBULATORY/UCPC
- LEGAL/COMPLIANCE
- MEDICAL STAFF
- MEDICATION MGMT
- OTHER

STANDARD OPERATING PROCEDURE

SOP # UCMC-LVAD-SOP-006-01

SOP NAME Changing Power Sources on a Left Ventricular Assist Device (LVAD)

ORIGINATION DATE 12/3/2011

SPONSORED BY Signature on File DATE 11/20/2017
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I. STANDARD OPERATING PROCEDURE

Administrative Interdepartmental Departmental Unit Specific

This document details the process for Changing Power Sources on a Left Ventricular Assist Device at UCMC.

II. PURPOSE

To ensure personnel that are trained in the care of patients with left ventricular devices (LVAD) are able to change the power source or supervise and instruct the patient and family/caregiver in changing the power source from the power based unit (PBU) to battery operation or from battery operation to PBU

III. DEFINITIONS

PBU- Power based unit

LVAD- Left ventricular assist device

IV. PROCEDURE

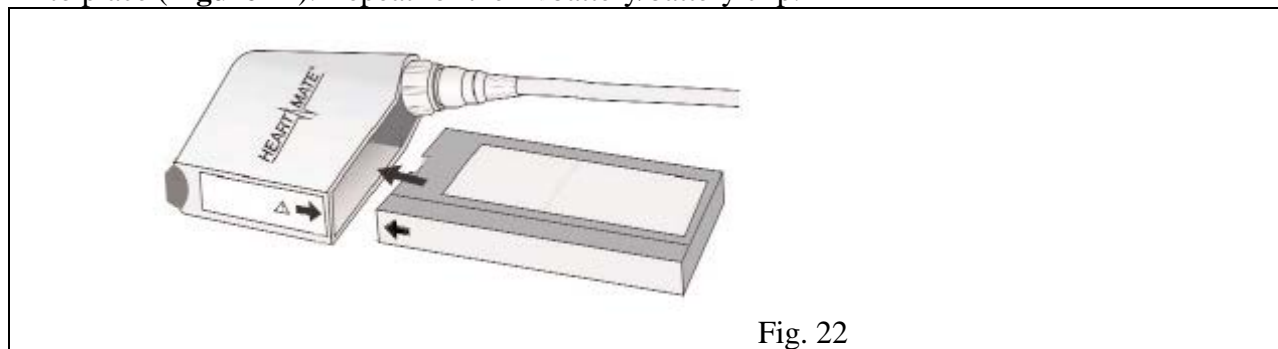
Changing from PBU to Battery-Powered Operation

To change from PBU power to battery operation:

1 Explain procedure to patient.

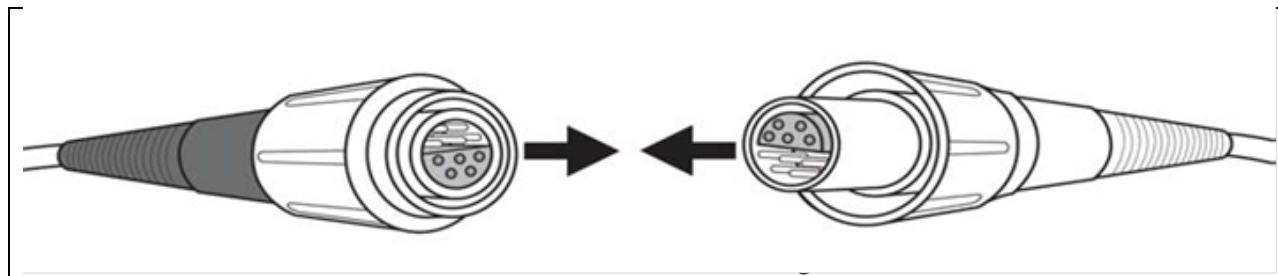
2 Place two battery clips, two fully charged HeartMate batteries, and the white and black PBU cable connectors within easy reach.

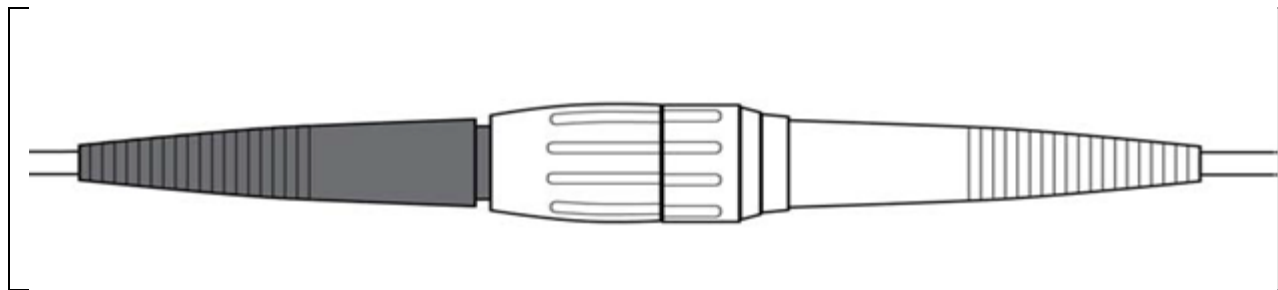
3 Place the 1st fully-charged battery into a battery clip by aligning the red arrows on the battery and clip and pushing the battery into the battery clip until it “clicks” into place (**Figure 22**). Repeat for the 2nd battery/battery clip.



4 Unscrew the **black** System Controller / PBU cable connector (**Figure 23**).

An alarm will sound





WARNING ! At least 1 System Controller power lead must be connected to a power source (batteries or PBU) at all times. Disconnecting both power leads at the same time will cause the pump to resort the backup battery within the system controller.

5 Put aside the PBU connector then connect the battery clip connector to the **black** System Controller connection by aligning the pins, pushing the connectors together snugly, and then hand tightening the connectors.

The alarm will stop

CAUTION !

- When connecting leads, do not force them together without first lining up the connectors. Forcing together misaligned connectors may damage them.
- Never use tools to tighten connections. Hand tighten only. Using tools may damage connectors.
- Do not let connector ends get dirty or wet.

6 Unscrew the **white** System Controller/PBU connectors.

An alarm will sound

7 Put aside the PBU connector, then connect the battery clip to the **white** System Controller connector by aligning the pins, pushing the connectors together snugly, and then hand tightening the connectors.

The alarm will stop

8 Put the batteries/clips into the patient's holster or consolidated bag.

9 Store the PBU connectors in a clean, dry location.

10 Place at least two fully-charged batteries in the patient's travel case for backup use.

Changing Batteries

To replace depleted batteries with fully-charged batteries:

- 1 Explain procedure to patient.
- 2 Remove batteries and battery clips from the patient's holsters or consolidated bag.
- 3 Remove a set of **fully-charged** spare batteries from the patient's travel case or from the PBU.
- 4 Remove only **ONE** battery from its battery clip by pressing the battery release button
An alarm will sound
- 5 Align the red arrow on the new battery and the red arrow on the battery clip (**Figure 22**; previous page).

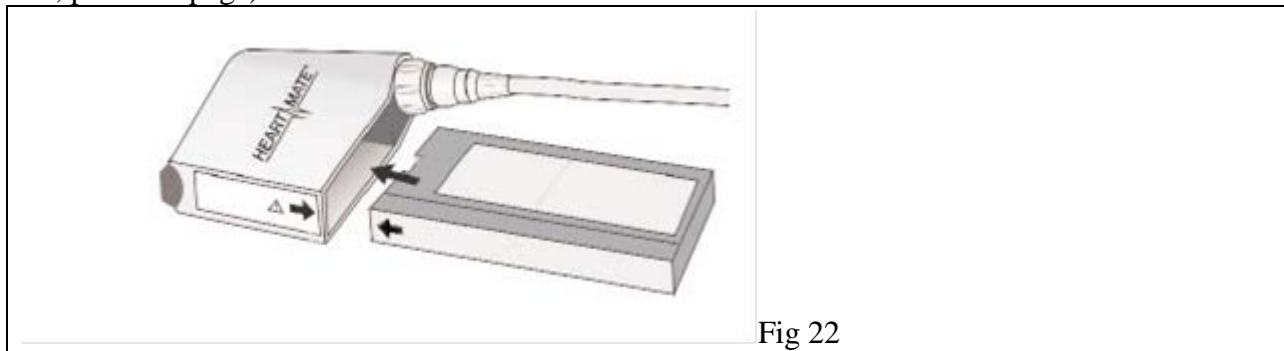


Fig 22

- 6 Slide the new, fully-charged battery into the battery clip until it “clicks” into place.
The alarm will stop
- 7 Repeat steps 4- 6 for the 2nd battery/battery clip.
- 8 Place the new batteries and clips into the patient's holster or carrying case.
- 9 Place depleted batteries into the battery charger for recharging.

V. RESPONSIBILITY

Tasks	Responsible Staff
Change power source	LVAD personnel/Families
Supervise power source change	LVAD personnel

VI. KEY WORDS

PBU
Battery
LVAD Power Source

VII. APPENDIX

Appendix A- Previous SOP with image of Power Source

VIII. RELATED FORMS

None

IX. REFERENCES / CITATIONS

None