

Priority	System Controller Screen	Active Symbols	Alarm Means	To Resolve Alarm
H A Z A R D	Low Flow ⊙ :03 + Call Hospital Contact ⊙ :07		Pump is off. The pump running symbol  is black.	<ol style="list-style-type: none"> <li>1. Check if the fixed speed setting is below 8,000 rpm AND the System Controller's backup battery is not installed. Under these conditions, the pump can only be started from the System Monitor's Clinical or Settings screen by pressing the Pump Start button. Otherwise, press any button on the System Controller to attempt pump start.</li> <li>2. Switch to backup System Controller and attempt to restart pump.</li> <li>3. Clinically evaluate patient.</li> </ol>
	Connect Driveline ⊙ :02	 + 	Driveline is disconnected. The pump running symbol  is black.	<ol style="list-style-type: none"> <li>1. Immediately reconnect the driveline to System Controller and move the driveline safety tab on the System Controller to the locked position.</li> <li>2. If alarm persists after reconnecting the driveline, press any button on the System Controller to attempt pump start. Otherwise, check if the fixed speed setting is below 8,000 rpm AND the System Controller's backup battery is not installed. Under these conditions, the pump can only be started from the System Monitor's Clinical or Settings screen by pressing the Pump Start button.</li> <li>3. If driveline is connected and alarm persists, replace System Controller with pre-programmed backup System Controller.</li> </ol>
	Backup Battery ⊙ :01 + Connect Power Immediately ⊙ :05	 +  + 	Both power cables are disconnected	Immediately connect to a working power source (Power Module or two fully-charged HeartMate 14 Volt Lithium-Ion batteries).
	Low Flow ⊙ :03 + Call Hospital Contact ⊙ :07		Low flow, flow is less than 2.5 lpm	<ol style="list-style-type: none"> <li>1. Ensure that the driveline is connected to System Controller.</li> <li>2. Ensure that a power source is connected to System Controller.</li> <li>3. Clinically evaluate patient.</li> </ol>
	Replace Power Immediately ⊙ :02 + Low Battery ⊙ :06		Low Battery, Power input is extremely low with less than 5 min. remaining	Immediately connect to a working power source (Power Module or two fully-charged HeartMate 14 Volt Lithium-Ion batteries).

Important! The pump running symbol is always lit green when the pump is running.

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Thoratec Corporation continually strives to provide the highest quality products for mechanical circulatory support. Specifications may change without notice. Therefore, please refer to the HeartMate® Left Ventricular Assist System IFU shipped with the HeartMate II for the most current information regarding indications, contraindications, warnings, and cautions. Thoratec, the Thoratec logo, HeartMate, and HeartMate II are registered trademarks and HeartLine is a trademark of Thoratec Corporation ©2013 Thoratec Corporation. 107526-D



**HeartMate II®**  
Left Ventricular Assist System











## Alarms for Clinicians

For additional information and guidelines, please refer to the HeartMate II Instructions for Use.



**DEVICEPHARM**

Laser %	Live	Trim	Bleed	Color	Fold
		11 x 8.5	.125	process+satin	3.66x8.5
Designer	AE	Creative	Traffic	Production	Proofer
				Russ	

Priority	System Controller Screen	Active Symbols	Alarm Means	To Resolve Alarm
A D V I S O R Y	Connect Power ⊖ :04		One of the two power cables is disconnected	Promptly connect the disconnected power cable to power source (functioning Power Module or two fully-charged HeartMate® 14 Volt Lithium-Ion batteries).
	Replace Power ⊖ :02 + Low Battery ⊖ :06		Low Battery, Power input is low with less than 15 min. remaining	Promptly connect to a working or different power source (Power Module or two fully-charged HeartMate 14 Volt Lithium-Ion batteries).
	Replace Controller Controller Fault + Call Hospital Contact Controller Fault		System Controller hardware fault	1. Switch to the backup System Controller. 2. Provide patient with a new System Controller.
	Call Hospital Contact Backup Battery Fault		System Controller Backup Battery fault	Replace the 11 Volt Lithium-Ion backup battery. <b>Note:</b> If replacing the battery does not resolve the alarm, the System Controller may need replaced, or additional steps may be required. Call Thoratec with questions.
	Low Speed ⊖ :03 + Call Hospital Contact ⊖ :07		Low Speed advisory warning	1. Use the System Monitor to check that the fixed speed and low speed limit have been appropriately set. 2. Replace the System Controller. 3. Clinically evaluate the patient.
	Call Hospital Contact Driveline Fault		Driveline fault	1. Contact Thoratec to determine best next steps. 2. Use the System Monitor to silence the alarm while awaiting resolution, if needed. <b>Note:</b> The alarm must be active in order to access the alarm silence for this situation.
			System Controller Backup Battery not installed	1. Install the 11 Volt Lithium-Ion backup battery in the System Controller. 2. Obtain a new backup battery replacement kit. <b>Note:</b> If replacing the battery does not resolve the alarm, the System Controller may need replaced, or additional steps may be required. Call Thoratec with questions.
			Controller Clock not set	Use the System Monitor to set the System Controller's internal clock. <b>Note:</b> Be sure the System Monitor clock is correct.

Important! The pump running  symbol is always lit green when the pump is running.