

HemoSphere Advanced Monitoring Platform with ClearSight Module

General troubleshooting/information

General troubleshooting

1. Troubleshooting a waveform after monitoring is initiated

- Step 1: Check the status bar for any faults or alerts that may indicate a problem
- Step 2: Touch the question mark icon for more information on displayed messages

For more information on displayed messages, refer to the HemoSphere advanced monitor platform operations manual on pg. 263, table 15-20, "HemoSphere ClearSight module faults/alerts."

2. Troubleshooting the ClearSight finger cuff:

- During measurement, the tip of the finger being monitored by the cuff may show some coloring; this is normal and will disappear within a few minutes of cuff removal
- If the patient is rotated or moved, the phlebostatic axis will rotate or move with the patient; if necessary, be sure to reapply the heart end of the heart reference sensor (HRS) to ensure that it is still at the same vertical level as the heart in the patient's new position
- During measurement, a conscious patient may notice slight pulsations in the finger; these pulsations will stop momentarily during Physiocal; this is normal and not caused by the patient's heart
- Ensure that the patient's hand is relaxed so that blood flow to the hand is not partially obstructed



Scan QR code for a video of these setup instructions



Edwards

Connecting a pressure cable and/or connecting HemoSphere advanced monitor to a patient bedside monitor

HemoSphere pressure cable

1. Pressure transducer/sensor connection
2. Zero button/status LED
3. Color insert for pressure type
4. HemoSphere advanced monitor pressure cable connection



1. Steps to add in a pressure cable

- Step 1: Connect monitor connection end of the pressure cable **4** to the HemoSphere advanced monitor platform
- Step 2: Connect a primed TruWave pressure transducer to the second HemoSphere pressure cable, once connected the LED that surrounds the zero button on the pressure cable will flash green indicating that the pressure sensor is detected **3**
- Step 3: Touch the zero and waveform icon  located on the navigation bar
- Step 4: Select the pressure type button for the connected pressure cable port (1 or 2) to select the type/location of pressure sensor being used; the waveform color will match the pressure type selected; the choices for the pressure transducer are: central venous pressure (CVP) or pulmonary artery pressure (PAP)
- Step 5: Level the stopcock valve (vent port) just above the TruWave transducer to the patient's phlebostatic axis position and open the stopcock valve to measure atmospheric conditions; the pressure should display as flatline
- Step 6: Press the physical zero button **2** directly on the pressure cable and hold for three seconds or touch the zero button located on the HemoSphere monitor screen; when zeroing is complete, a tone sounds, and the message "zeroed" appears with the time and date; the zero button **2** will stop blinking and turn off once zeroing is completed successfully
- Step 7: Touch the home icon to begin monitoring

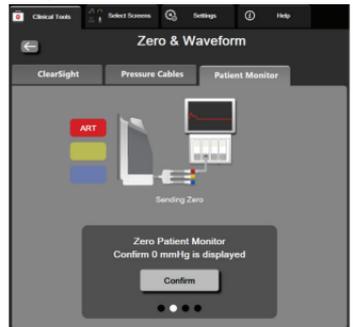
2. Output signal to a bedside patient monitor

The zero and waveform screen provides the user with the option to send the arterial waveform signal to a bedside patient monitor.

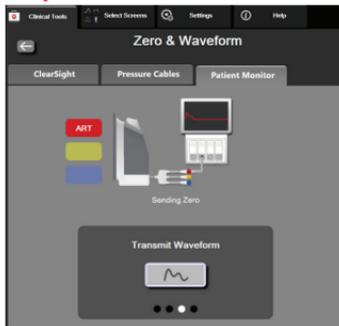
- Step 1: Touch the zero and waveform icon located on the navigation bar 
- Step 2: Plug the HemoSphere advanced monitor pressure out cable **A** into the rear panel of the monitor at the pressure out port **B**
- Step 3: Connect the arterial pressure (AP, red) signal plug into a compatible patient monitor
- Step 4: Touch the patient monitor tab on the zero and waveform screen and zero patient monitor and confirm 0 mmHg is displayed on the patient monitor
- Step 5: Touch the transmit waveform icon  to begin pressure signal output to the patient monitor
- Step 6: A “setup complete” message will be displayed when the live waveform is being transmitted to the connected patient monitor



Step 4



Step 5



Step 6



Additional information

1. Physioal display: Physioal is an automatic calibration of the arterial waveform which occurs at regular intervals during noninvasive monitoring. To accurately account for changes in the finger artery characteristics throughout monitoring, Physioal is performed at regular intervals resulting in momentary interruptions to the arterial waveform.

Appearance	Physioal beats interval	Indication
	≥ 30	Normal measurement stability
	< 30	Frequent Physioal interruptions; variable physiological artery properties and decreased measurement stability
	—	Physioal being performed or status not available

2. SQI display: A signal quality indicator (SQI) is present on all noninvasive parameter tiles during HemoSphere noninvasive system monitoring. SQI level is calculated with each parameter update every 20 seconds. See below for a description of arterial waveform SQI levels.

Appearance	Level	Indication
	4	Normal
	3	Intermediate (moderately compromised)
	2	Poor (possible alert status causing limited signal)
	1	Unacceptable (possible alert status causing extremely limited or no signal)*
	0	Pressure waveform unavailable*

*For a list of HemoSphere ClearSight module alerts, see table 15-20 on page 263 in the HemoSphere advanced monitor operations manual.

CAUTION: Federal (United States) law restricts this device to sale by or on the order of a physician. See instructions for use for full prescribing information, including indications, contraindications, warnings, precautions and adverse events.

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