Valve Test

1   Raise the pressure again to 280 mmHg.

2   Select **Close valves: Off**.

3   Wait five seconds and then document the value displayed. The value should be less than 10 mmHg.

4   Document the value displayed by the monitor (x4).

Test	Expected test results
Accuracy test	x1 = 280 ± 3mmHg Difference ≤ 3mmHg
Leakage test	x2 = leakage test value x2 < 6 mmHg (with 250ml expansion chamber)
Linearity test	x3 = 150 ± 3mmHg Difference ≤ 3mmHg
Valve Test	x4 = value < 10 mmHg

Invasive Pressure Performance Test

This test checks the performance of the invasive pressure measurement.

Tools required: Patient simulator, for dual pressure connectors: Philips Dual IBP Adapter (989803199741).

1   If you are testing on a dual pressure connector, connect the Dual IBP Adapter to the pressure connector. If you are testing on a single pressure connector, connect the patient simulator to the pressure connector and proceed to step 3.

2   Connect the patient simulator to the Dual IBP Adapter.

3   Set the patient simulator to 0 pressure.

4   Perform a zero calibration.

5   Configure the patient simulator as P(static) = 200 mmHg.

6   Wait for the display.

7   The value should be 200 mmHg ± 5 mmHg. If the value is outside these tolerances, calibrate the Invasive Pressure measurement. If the measurement was calibrated with a dedicated reusable catheter, check the calibration together with this catheter.

8   If you are testing on a dual pressure connector, repeat the test for the second pressure connector.

Test	Expected test results
Invasive Pressure Performance Test	200 mmHg ± 5 mmHg

Temperature Performance Test

This test checks the performance of the temperature measurement.

Tools required: Patient simulator (with 0.1°C or 0.2°F tolerance).

1   Connect the patient simulator to the temperature connector.

2   Configure the patient simulator to 40°C or 100°F.

3   The value should be 40°C ± 0.2°C or 100°F ± 0.4°F.

Test	Expected test results
Temperature Performance Test	40°C ± 0.2°C or 100°F ± 0.4°F

867040/M3014A Capnography Extension Performance Tests

The procedures below describe the mainstream and sidestream CO_2 performance tests for the 867040 and M3014A Capnography Extensions.

Mainstream CO2 Accuracy Check

Tools Required:

- three airway adapters
- Verification Gas M2506A
- Gas cylinder regulator M2505A

You also need a local barometric pressure rating received from a reliable local source (airport, regional weather station or hospital weather station) which is located at the same altitude as the hospital.

Procedure:

1   Attach the M2501A CO_2 sensor to the patient monitor. Attach an airway adapter to the sensor. Make sure that the sensor is disconnected from the patient circuit.

2   Switch on the patient monitor.

3   Enter the monitor's Service Mode.

4   Using the sensor status provided in the M2501A Serial protocol, wait for the M2501A sensor to warm up to its operating temperature.

5   The default setting for gas temperature is 22°C. If the gas temperature is significantly above or below this value, correct the gas temperature setting.

6   Zero the sensor on the airway adapter being used in this test. Ensure Zero Gas is set to Room Air

7   Attach a regulated flowing gas mixture of 5% CO2, balance N2 to the airway adapter.

8   Set the gas correction to off.

9   Allow a few seconds for the gas mixture to stabilize and observe the CO2 value. The expected value is 5% of the ambient pressure ±2mmHg

NOTE

Make sure that you follow the above steps correctly. If the sensor fails this check it must be exchanged. The sensor cannot be calibrated.

Example for an expected test result:
The expected test result for an altitude of 0 m (sea level) at approximately 760 mmHg ambient pressure is:

Test	Expected test results (x1)	Acceptance Range
Mainstream CO2 Accuracy Test	5% of 760 mmHg pressure ±2mmHg	36 mmHg - 40 mmHg

NOTE

The expected test results will differ depending on the conditions (i.e. altitude or ambient pressure).