

Title: Patient Monitor- Propaq Encore or CS	file = propaq-Encore&CS.doc
By Welch Allyn	DISCLAIMER: THIS PROCEDURE PROVIDED "AS IS" AND WITH POSSIBLE FAULTS. USER MUST VERIFY BEFORE USE. NEITHER PROVIDER NOR WEBSITE ASSUMES ANY RESPONSIBILITY FOR ITS USE.
Date: February 9, 2016	

1. General

Applies to Propaq® Encore & CS Vital Signs Monitors
Models 202, 204, and 244 (CS = touch screen version).

2. Reference Documents

See Appendix

3. Tools / Fixtures / Labels

Blood Pressure Simulator
EKG Simulator and set of EKG leads
Pulse Ox Simulator

4. Basic PM Procedure

Note: The service manual contains a very detailed Functional Verification.

4.1. Physical Inspection.

Make sure the two small rear circular flanges have not loosened up by temporarily removing the unit from support stand if mounted.

Check entry of main low-voltage power cord. When attached, the nearby green “power available” LED should not flicker if this cord is moved.

Check the external power supply for proper mounting.

Check the patient leads (EKG, pulse ox, and pressure hose for continuity and integrity).

4.2. Turn on unit; button switch is on the right side. Unit will normally go thru a set of power-up self-diagnostics. Optional: Occasionally necessary to check adjust alarm levels by following the icons on the touch-screen (hit Setup/Alarms/Limits).



Note: When connected to a network, the upper left of the screen will alternate text “Serial” / “On-network”. If network connected, be aware of false alarms.

4.3. Date/Time Set

After initial turn-on, the first screen to normally appear will display the SETUP key. Hit SETUP, followed by two hits to the MORE key. If time and day do not show, hit TIME/DAY button. Use the NEXT, UP, and DOWN keys to adjust as required, followed by the ENTER key (the Enter key may appear to give no response to being hit).

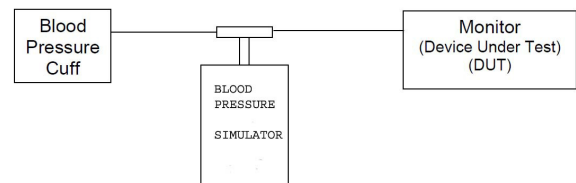
4.4. Battery Check -- per Welch Allyn: If bat volt < 7.4, connect charger. Typical volts for a new charged battery is 8.4 volts (on screen). If the charging battery voltage is greater than 9, the battery is showing high resistance/age and should be replaced. Alternate bat check: run unit unplugged for at least 20 minutes before "Low Bat" displays.

4.5. ECG Check. Connect ECG simulator (60 bpm for example). Hit MAIN MENU, followed by ECG. Waveform corresponding to your simulator settings should appear on upper part of screen, along with an audible heart rate beep. To stop, start, or change the volume level do: MainMenu, Setup, More, Next (until HR/PR TONE is selected), Change.

ECG Alarm Check. To verify an upper limit, set the simulator for a high rate such as 160 beats/min. Within a few seconds, the monitor should alarm.

4.6. SP02 / Pulse Oximeter. *Note: A label by the unit's SP02 connector indicates the correct brand of sensor to be attached – Nellcor or Masimo.* If no simulator is available, a typically healthy individual should read 97-99% when properly attached. This reading can sometimes take almost a minute to be displayed. If used alone, the SP02 screen will also display heart rate. To show SP02 waveform, do MAIN MENU, SP02/CO2, SP02.

4.7. Blood Pressure. Attach a patient cuff to the unit by wrapping it properly around a bottle for example. Set the sim for a normal 120/80. Use a tee to connect the cuff line to the output of sim. To take a blood pressure test, put the Propaq in NIBP mode (Main, NIBP, Start). Typical results include 115 over 76 for the above settings. The first try can be ignored.



4.8. Temperature Check

If the model has temperature sensing, attach the thermistor probe to a probe cable. Depending on which input connector was used, the probes temperature will be displayed along with either T1 or T2 at the top of the main screen. Note: If human temp alarm limits were properly set, expect an alarm for room temperatures. The fixed resistance reference probe often used with Propaqs is set for 37 C. In this case acceptance is 37 +/- 0.2 degrees.

4.9. Invasive Blood Pressure (if supplied).

See "IBP channel" under functional tests in the Service Manual

4.10. Printer Check (if supplied)

See bottom of paper door for re-loading info (the paper comes blank). The printer can be checked by first running an ECG waveform, and then pressing the START/STOP button on the lower right corner.

4.11. CO2 Check (CS Models only) See Service manual for details.

4.12. Re-label: Per requirements of your institution.

5. Extended PM Procedure -- See Appendix for Service Manual Info.

APPENDIX

TITLE	P/N	SOURCE
Propaq Encore User Manual	810-1316-XX (Printed)	https://intl.welchallyn.com www.frankshospitalworkshop.com/equipment/ecg_service_manuals.html
Propaq Encore Service Manual	810-1316-XX (Printed)	
Propaq CS User Manual	810-2707-XX (Printed)	
Propaq CS Service Manual	810-2737-XX (Printed)	