

Propaq CS Outline Train the Trainer

- A. Lightweight and durable
 - 1. Weighs 8 to 14 pounds depending on configuration
 - 2. Made of heavy plastic (similar material as that used in NFL helmets)
- B. Battery life
 - 1. 4 to 5 hours depending on the number of parameters being monitored
 - 2. Every hour being charged restores approximately 2 hours of battery power
 - 3. Propaq CS should always be charging unless it is being used for transport
- C. Transport handle designed for easy placement on siderails
- D. Right side of monitor related to power
 - 1. Power Button – recessed to prevent accidental shut-off
 - 2. Battery Charger and Indicator Lights
 - a. Verify monitor is being charged by checking for green lights on side of Propaq and on charger unit
 - b. Monitor may be used while battery is charging
 - c. If low battery display occurs, still have 1.5 hours of battery power left; auto BP mode will shut off to conserve battery power; and clinician may continue to initiate manual BP's as needed
 - d. Propaq CS monitor will display "Very Low Battery" message accompanied by an audible alarm approximately 15 minutes prior to complete loss of battery charge
 - 3. Acuity Communication Port
 - a. Phone jack style communication port on right side of monitor
 - b. Black or gray coiled cord plugs into this port, and other end is plugged into the Acuity Wall Jack
- E. Left side of monitor related to sensors (what is being monitored)
 - 1. Ports for each parameter
 - 2. Varies according to configuration models – 242, 244, or 246
 - 3. Can monitor two waves of ECG, NIBP, SpO₂, RESP, two lines of INV BP, EtCO₂, two temperature modes
- F. Turn Propaq CS monitor on
 - 1. Diagnostics Screen
 - 2. Battery charge level
 - a. The amount of battery charge is displayed when monitor is first turned on
 - b. Fully charged battery = 9.4 volts
 - c. Unit shutdown occurs when the battery charge is less than or equal to 7.0 volts
 - 3. Patient Mode – Adult, Pediatric, or Neonatal
- G. Propaq CS Touch-Screen Controls and soft keys
 - 1. Alarms – Silence/Re-enable a patient alarm or equipment alert

2. CUFF – Start/Stop NIBP
3. HOME – Main Menu
4. HOME or Main Menu - row of 5 soft keys consists of (depends on configuration) – NIBP, ECG (or ECG/RESP), INV PRS, SpO2 (or SpO2/CO2), and SETUP
 - a. Read menu buttons from left to right like a book
 - b. When a soft key is pressed, menu can change to show a new menu
 - c. When MORE button is present, press it to find more options

H. NIBP

1. Press NIBP to obtain menu concerning non-invasive blood pressure (NIBP) functions
2. START button initiates NIBP reading at any time (toggles to STOP)
3. AUTO/MANUAL button tells monitor to measure NIBP at a given time interval, or sets mode to take NIBP manually
4. Press INTERVAL button to choose time interval – every 1, 2, 3, 5, 10, 15, 30, or 60 minutes) for AUTO mode of BP
5. TURBOCUFF button
 - a. Takes maximum amount of blood pressures it can read in 5 minutes
 - b. Use during code situation, for example
6. SMARTCUFF™ button toggles to ON or OFF. It is a filter to increase accuracy during NIBP measurements when there is the presence of motion artifact or diminished pulses. The monitor must be performing ECG monitoring to use Smartcuff™.
7. On-screen BP manometer
 - a. Use to verify an NIBP reading
 - b. Place stethoscope over patient's antecubital area (brachial artery), press START, and use on-screen manometer as you would a wall sphygmomanometer
8. NIBP numeric display will shrink to 1/3 of the normal size after 16 minutes to alert the clinician that the BP reading is > 16 minutes old

I. ECG

1. Press ECG button to obtain menu concerning ECG functions
2. Press ECG LEAD to select lead for monitoring – I, II, or III (and aVR, aVL, aVF, & V if using a 5-lead ECG cable)
3. Use ECG SIZE button to change size of tracing – 0.2mV/cm, 0.5mV/cm, 1mV/cm, 2mV/cm, or 4mV/cm
4. Press MORE button to obtain more options pertaining to ECG
 - a. Press NEXT to move highlighted cursor
 - b. Press CHANGE to change highlighted area
 - i. Change HR/PR Tone
 - ii. Turn Pacer Display On or Off
 - iii. Change ECG Bandwidth
5. Always practice good lead preparation to ensure optimum ECG tracing

J. RESP (if applicable)

1. Press ECG/RESP to obtain menu concerning RESP functions
2. Press RESP SZE to increase or decrease respiratory waveform size
3. Press MORE
 - a. May turn Respiratory monitoring On or Off – will obtain “Are You Sure?” Message if try to turn off respiratory monitoring

- b. Respiratory lead can be either Ld1 (RA – LA) or Ld2 (RA – LL). Ld2 is the default
 - 4. Propaq CS uses impedance pneumography to detect respiratory rate via the ECG leads
- K. INV PRS (if applicable)
 - 1. Press INV PRS to obtain menu concerning Invasive Pressures
 - 2. Zero an invasive pressure line by pressing ZERO P1 after opening stopcock to air
 - 3. Press RESCALE to select best numeric scale for display of what is being monitored
 - 4. RANGE button will change numeric scale
 - 5. Press the MORE button to obtain more options pertaining to INV PRS
 - a. Press FORMAT to change display of systolic, diastolic, and mean pressures
 - b. Press LABEL P1 to label invasive line as ART, PA, CVP, or ICP
- L. SpO2 (if applicable)
 - 1. Press SpO2 to obtain menu concerning SpO2 functions
 - 2. Press SIZE to increase or decrease amplitude of SpO2 waveform
 - 3. Press MORE button to obtain more options pertaining to SpO2
 - a. Press RESPONSE to change the amount of time the monitor takes to acquire the oxygen saturation value – NORMAL, FAST, or SLOW
 - i. The NORMAL response time samples 5 – 7 seconds of data - select it for use with relatively stable patients
 - ii. The FAST response time samples 2 – 3 seconds of data - select it when patient movement or artifact are not present
 - iii. The SLOW response time samples 10 – 15 seconds of data - select it when patient movement prevents accurate measurement at normal setting
 - b. Press C-LOCK to turn C-Lock feature either On or Off
 - 4. Tips for successful SpO2 monitoring
 - a. Apply sensor properly and be sure it is secure
 - b. On each patient, use a new sensor with fresh adhesive backing (if using disposables)
 - c. Choose a site that is less active
 - d. Place sensor on extremity opposite that being used for BP measurement
 - e. Rotate sensor site to prevent skin breakdown or burns
- M. CO2 (if applicable)
 - 1. Press CO2 to obtain menu concerning ETCO2 functions
 - 2. Press RANGE to select CO2 waveform scale based on the display units - mmHg, kPa, or percent
 - 3. The mm/sec button sets the display sweep speed – 12.5, 6.25, or 3.13 mm/sec
 - 4. Press MORE button to obtain more options pertaining to ETCO2
 - a. Press GAS COMP button to select: off; O2 > 50% and no N2O; or N2O > 50%
 - b. Press RESPONSE to change the amount of time the monitor takes to acquire the carbon dioxide value
 - i. The NORMAL response time samples 30 seconds of data – indicated during routine use
 - ii. The FAST response time samples 15 seconds of data – indicated during neuroanesthesia
 - iii. The SLOW response time samples 45 seconds of data – indicated for use to decrease ETCO2 false alarms
 - c. Press ON/OFF to turn CO2/ Breath Rate monitoring On or Off

5. Tips for successful CO₂ monitoring
 - a. Do not attempt to verify operation of the CO₂ sensor by blowing directly through it
 - b. Replace the adapter every 24 hours or if it becomes occluded
 - c. Always look through the lumen before and after attaching the sensor to check for window integrity, and check to be sure there are no obstructions
 - d. Ensure that there are no leaks in the breathing circuit at any point of connection

N. SETUP → STATSCALE automatically rescales all waveforms

O. SETUP → ALARMS

1. Alarm Status Display shows full bell, half bell, or no bell
2. Press STAT SET button to automatically set alarm limit parameters to be within 10 – 20% of the patient' current (average) vital sign values – AVOID USING ROUTINELY
3. Press SUSPEND to silence alarm or alert tone for 90 seconds or until a new alarm or alert occurs (toggles to RESUME)
4. Press 4 MIN SUSPND to inhibit alarm and alert tones for 4 minutes
5. Press LIMITS to change current alarm limits
 - a. Use NEXT PARAMETER to move highlighted cursor
 - b. Use NEXT SETTING to highlight the upper or lower limit to be changed
 - c. Press UP or DOWN buttons to change alarm limits
 - d. Turn limit On or Off by pressing ON/OFF

P. SETUP → WAVE SELECT

1. Pressing WAVE SELECT allows you to turn On or Off desired waveforms or cuff numerics for display
2. Use ON/OFF key to select a particular waveform for display
3. Press the NEXT key to move the highlighted cursor to the next parameter waveform

Q. SETUP → TRENDS

1. Press PRINT key (if applicable) to obtain printout of displayed trends
2. Use arrow up and arrow down buttons to view trends not showing on screen
3. Press NXT TRND to display next set of trended data
4. Press OXYCRG (if printer is attached) to obtain an oxygen cardiorespirogram printout

R. SETUP → MORE

1. Press MORE key to obtain more options pertaining to SETUP
2. Use NEXT key to move highlighted cursor
3. Press CHANGE key to change selection that is highlighted
 - a. ALARM TONE – High, Medium, or Low
 - b. HR/PR TONE – High, Medium, Low or Off
 - c. SELECTED SOURCE for HR/PR – ECG or SpO₂
 - d. SWEEP Speed in mm/second
 - e. PATIENT MODE – Adult, Pediatric, or Neonatal: Change to a different mode - will obtain, "Are You Sure?" message
4. WAVE SELECT key takes you to Wave Select Menu
5. Press PRINTER key to program printouts
 - a. Press CHANGE key to change the selected function

- b. Press NEXT to move the highlighted cursor
 - c. Press PR TRENDS to print all trends turned on in the Printer Trend Select Window

- S. NET OFF (if using Acuity workstation with the net off feature enabled)
 - 1. To transport with monitor – press NET OFF in top left hand corner of screen; remove battery charger and Acuity jack cables from right side of monitor
 - 2. To discontinue monitoring – press NET OFF in top left corner of screen and turn off monitor

- T. TEMPORARY DISCONNECT (Hardwired CS)
 - 1. Disconnect sensor cables from patient
 - 2. If SpO2 is monitored, remove cable from left side of monitor and ensure NIBP is in manual mode
 - 3. Press any key to 'Acknowledge Equipment Alert'
 - 4. Upon return: reattach sensors to the patient and cables on left side of monitor. You may be asked to 'Reconfirm Patient' depending on how long patient was not monitored.

- U. SNAPSHOT button (if using Acuity workstation)
 - 1. Can obtain laser printout at Acuity
 - 2. Printout includes 14 seconds of ECG prior to pressing SNAPSHOT and 7 seconds of current ECG data for a total of 21 seconds
 - 3. Press SETUP, press ACUITY, press SNAPSHOT

- V. Printer Unit (if applicable)
 - 1. Press START/STOP to initiate or terminate ECG strip printout
 - 2. Press SNAPSHOT button to print 8 seconds of patient information obtained prior to pressing SNAPSHOT
 - 3. PRINT TRENDS button allows you to print all trends recorded on the patient for as long as they have been monitored
 - 4. Give demonstration of how to change paper

- W. Putting Propaq CS monitor into Inservice Mode
 - 1. Remove all sensor cables from Propaq monitor, turn monitor on
 - 2. From the Main Menu: Press SETUP, press WAVE SELECT, press INSERVICE (If connected to Acuity: SETUP → MORE → WAVE SELECT → and then INSERVICE)
 - 3. To simulate an alarm, press INSERVICE again; to undo alarm state, press INSERVICE once more
 - 4. If you try changing NIBP to AUTO mode, monitor will turn off and on – it will ready itself to monitor an actual patient
 - 5. The INSERVICE button will read, "NO INSERVICE" if the above steps are not followed

- W. Administrative option to change default settings (Nurse Managers, account champions, and Biomedical staff only)
 - 1. Place all parameters, options, etc. in desired settings
 - 2. Press SETUP, press MORE, press CHANGE, press SETUP, press NEXT to highlight the desired Factory or Custom power-up mode, press POWERUP, YES, then SAVE, and YES again.

3. Turn the monitor off and then on again to confirm that desired parameters are programmed into monitor