Connex® Vital Signs Monitor
1.7 Software Version

Clinical Inservice Presentation
Table of Contents

- Device Overview & Intended Use
- Roll Stand Features
- CVSM Exterior
- Power ON
- Power OFF
- Home Screen Navigation
- Spot Profile
- Monitor Profile
- Changing Profiles
- Taking a Non-invasive Blood Pressure
- Proper BP Technique
- Taking Interval Blood Pressures
- Taking Temperatures using SureTemp® Plus
- Taking Temperatures using Braun 4000
- Obtaining an SpO₂ and Pulse Rate
- Alarm Management
- Entering Manual Parameters
- Entering Modifiers
- Saving and Reviewing Vital Signs
- Cleaning
- Advanced Settings
- Conclusion & Resources
Device Overview & Intended Use

Use to obtain vital signs and other parameters

- Adults (>12 yrs)
- Pediatric (29 days-12 yrs)
- Neonate (<28 days)
Roll Stand & Accessory Cable Management System Features

- Ergonomic design: roll handle, night light, easy to roll
- Cable management system with SpO$_2$ holster
- Infection control features:
  - Holder for wipes
  - Lack of corners for ease of wiping
  - Probe cover storage
Roll Stand & Accessory Cable Management System Features

• Ergonomic design: roll handle, night light, easy to roll
• Cable management system with SpO\textsubscript{2} holster – please use!
• Cross-contamination reduction features:
  – Holder for wipes
  – Lack of corners for ease of wiping
  – Probe cover storage
CVSM Exterior

- Power button
- Ports:
  - Ethernet
  - USB
  - Stereo/nurse call
  - EarlySense® Port (if applicable)
CVSM Exterior

- Patient cable/sensor ports
  - SpO$_2$/Pulse Rate
  - NIBP (non-invasive BP)
Power ON

Press Power Button on the side

[Image of medical device]
Power OFF

1. Touch battery icon on top right corner of Home Screen
2. Choose Power Down

*It is important to power down this way in order to prevent a hard reboot of the device, which could result in lost information and configuration setting changes.
The home screen is divided into three areas:

- Device Status Area
- Content Area
- Navigation Area

Let’s look at each area.
Device Status Area

Provides device status information, including:

• Clinician ID
• Device location (*i.e.* nursing unit)
• Time
• Date
• Connection status (*i.e.* Wireless)
• Alarms and Messages
Displays:
• Vital sign measurements
• Patient information
• Manual parameters
• Shortcuts to alarm controls
• Save button
Navigation Area

Provides tabs for:

• Home

• Patient List*

• Alarms*

• Review*

• Settings

*Depending upon profile selected
Spot Profile

Features:
- No alarms
- No BP intervals
- Take SpO₂ sensor OFF prior to touching SAVE
Monitor Profile

Features:
- Automatic, Program, and Stat interval settings
- Parameter alarms
- SpO₂ sensor should stay ON while you touch SAVE
Changing Profiles

To change Profiles
1. Touch Settings tab
2. Touch Profiles tab
3. Select the desired Profile (Spot or Monitor)
4. Touch Home tab

Note: You cannot change profiles while there is any data on the screen OR if intervals are running.
Taking a Non-Invasive Blood Pressure (NIBP)

- Proper technique is very important for accurate readings
- Uses SureBP® technology to capture BP on cuff inflation
- Will revert to Step deflation method
  - in times of extreme movement
  - artifact
  - Neonate mode
  - if programmed to do so via Advanced Settings

- Touch the START button to initiate a BP.
- Touch the STOP button to cancel a BP in progress.
Proper Blood Pressure Technique

- No more than two fingers between cuff and arm
- Patient sitting quietly; not moving
- Back supported; legs uncrossed
- Arm at heart level
- Align Artery Index Marker with brachial artery
- Proper sized cuff
- FlexiPort® should be placed to the outside/lateral aspect of the patient’s arm
Proper Blood Pressure Technique

For more information on Blood Pressure technique, go to:
https://www.youtube.com/watch?v=ScbFRb1dKc4&index=21&list=PLkXnwokwhxrU8d-LnfwYy2Lsjzqa2z7kX
Simple Steps for Initiating BP Intervals

1. Touch within the BP frame on the Home Screen
2. Choose “Automatic” or “Program”
3. Adjust intervals in minutes (Automatic) or choose appropriate program (Program)
4. Touch “Start Intervals”
Taking Interval Blood Pressures

- Access the Interval options by touching the clock icon within the NIBP frame
- Choose Automatic, Program, or Stat
- Note: “Stat” takes multiple BPs in a 5-minute period
Taking Interval Blood Pressures: **Automatic**

- Adjust Automatic Interval setting in minutes
  - Touch arrow keys
  - OR
  - Touch small keyboard icon in bottom right of “minutes” window
- Touch Start Intervals
Taking Interval Blood Pressures: **Program**

- Choose a preset Program
  - These are set up in Advanced Settings
  - Interval = How often
  - Duration = How long
- Touch Start Intervals

![Program Options]

- **Automatic**
- **Program**
- **Stat**

- **Start intervals**

![Intervals Tab]

- **Transfusion**
  - Duration: 60
  - Interval: 15
- **Program 2**
  - Duration: 60
  - Interval: 30
- **Program 1**
  - Duration: 60
  - Interval: 60
Stopping Interval Blood Pressures

• To stop intervals **entirely**
  – Press within the BP frame on the Home Screen
  – Touch Stop Intervals

• To stop **one single** interval reading
  – Press within the BP frame on the Home Screen
  – The next interval reading will occur at the appropriate time as scheduled
  – You can take BP readings in between scheduled intervals without interrupting the interval schedule
Taking an $\text{SpO}_2$ and Pulse Rate

- Uses Nellcor® or Masimo® technology
- Clean sensor (alcohol pad)
- No nail polish/artificial nails
- Warm/perfused extremity
- Place on opposite limb of blood pressure cuff if possible
- Pulse Rate comes from $\text{SpO}_2$ unless only a BP is taken, in which case the PR comes from the NIBP reading
Direct Mode

If the probe is left out of the well for 60 sec or a patient’s temperature is too cold for a predictive measurement (fast mode), the thermometer will go into a direct mode (as indicated). Readings must be measured for 3 min rectal/oral or 5 min axillary. There will not be an indicator when measurement is complete. User must record reading.

Probe Covers

Use only Welch Allyn Probe covers. Covers are designed specifically for Sure Temp Plus and are single use.

Probe Well

Well can be removed for cleaning. Blue probe/well for oral/axillary and red is for rectal.
Taking a Temperature Using SureTemp® Plus: Oral & Axillary

Oral Temperatures:

- Pull probe from well and apply probe cover
- Listen for short beep
- Place probe in sublingual pocket
- Thermometer will beep when reading is complete (4-6 secs)
- Press top of probe to release cover, then return probe to well

Axillary Temperatures:

- Pull probe from well and apply probe cover
- Listen for short beep
- Press Mode selection button to select Adult Axillary or Peds Axillary
- Place probe vertically in axilla (Think: “Align with the spine”)
- Thermometer will beep when reading is complete (12-15 secs)
- Press top of probe to release cover, then return probe to well

Proper probe placement is vital to obtaining an accurate reading
*Use ONLY Welch Allyn Probe Covers
Taking a Temperature Using SureTemp® Plus: Rectal

- Insert red probe and probe well into device
- Listen for short beep
- Pull probe from well and apply probe cover*
- Place probe in rectum (3/8 in)
- Lubrication is optional (if used, account for heating lubrication if at room temperature and use minimal amount)
- Thermometer will beep when reading is complete (4-6 secs)
- Press top of probe to release cover, then return probe to well

*Use ONLY Welch Allyn Probe Covers
Taking a Temperature using Braun® Thermoscan 4000: Tympanic

1. Remove the thermometer from the case and attach a new probe cover. The device turns on automatically.

2. Wait for the “ready” beep and place the probe snugly into the ear canal; correct probe placement is essential for accurate readings.

3. Press and release the Start Button. The thermometer will beep once. The green ExacTemp light above the Start Button flashes, indicating correct probe placement.

4. A long beep and a solid green ExacTemp light signals the end of an accurate measurement. Eject the used probe cover. For the next measurement, put on a new, clean probe cover.

5. If the probe is placed incorrectly or was moved while taking a temperature, the device beeps, the green ExacTemp light goes out and POS (Position Error) displays.

6. Press ( ) button to recall the last temperature.

7. To change default temperature scale: With the device off, press and hold the ( ) button for about 5 seconds. Release the ( ) button when desired scale is shown.
Changing Alarms in Monitor Profile

- From the Home screen, touch the alarm limits control in the selected parameter frame (i.e. NIBP or Pulse Rate)
- Enter the desired upper and lower alarm limits using the up/down arrows or keypad

Note: Alarms may also be adjusted by touching the Alarms tab.
Changing Alarms in Monitor Profile

• From the Home screen, touch the alarm limits control in the selected parameter frame
• Enter the desired upper and lower alarm limits using the up/down arrows or keypad
• To turn alarm limits on or off, use the ON/OFF toggle button
• If alarm limits are off, no visual or audio alarm signals will occur for that parameter. The alarm icon changes on the Home tab in that parameter frame as shown

*Note: Alarms may also be adjusted by touching the Alarms tab.*
• Alarms occur when vital sign measurements fall outside of set alarm limits
• The light bar on the handle of the monitor illuminates as follows:
  – Flashing red for high priority alarms
  – Flashing amber for medium priority alarms
  – Constant amber for low priority alarms
• To silence/suspend an alarm, touch the triangle in the top left corner OR touch the numeric value in the highlighted parameter frame
Entering Manual Parameters*

• From the Home screen touch the Manual parameters area (height, weight, pain, respirations) pictured below
• Touch up/down arrows or keypad to enter desired information
• Touch OK to confirm and return to the Home screen
• Entries will not be saved unless you touch OK

*If applicable to your facility
Entering Patient Modifiers*

- From Home screen touch Manual parameters area
- Touch the Modifiers tab
- Enter desired information (BP site, cuff size, etc.)
- Touch OK to accept or Clear to delete all entries
- Entries will not be saved unless you touch OK

*If applicable to your facility
Saving and Reviewing Vitals

1. When vitals are complete, touch the Save button
   - Data is then saved to Review tab and the screen is cleared
   - In Monitor Profile, vitals are automatically saved to the Review tab

2. Touch the Review tab
   - Most recent data is at the top of the screen
   - 400 readings can be stored for up to 24 hours.

3. To select a vital sign, touch the box to the left of the reading. A checkmark will appear
   - Options:
     • Send to send vitals to the network (if applicable)
     • Print to print vitals (if applicable)
     • Delete to delete vitals

4. If connected to a network, an envelope indicates the vitals have been sent to and received by Connex
Cleaning

• See DFU for cleaning instructions for each accessory
• For CVSM and Accessory Cable Management stand:
  – Clean on a routine basis according to your facility’s protocols and standards.
  – The following agents are compatible with the monitor:
    • Hydrogen Peroxide Cleaner Disinfectant Wipes (Clorox® Healthcare)
    • Dispatch Hospital Cleaner Disinfectant Towels with Bleach (Clorox® Healthcare)
    • 70% isopropyl alcohol
      – Wipe the monitor with a clean cloth slightly dampened with 70% isopropyl alcohol.
    • 10% chlorine bleach solution
      – Wipe the monitor with a clean cloth slightly dampened with a 10% bleach and water solution.
      – Rinse with a clean cloth slightly dampened with water.
      – Allow the monitor surface to dry for a minimum of 10 minutes before using.
• Do not submerge or spray anything directly onto device.
Advanced Settings

• Accessible only by code; See Biomed for access
  – Contains settings for display, parameters, alarms, and data management
  – Allows users to clone devices via USB drive

• See Directions for Use for further information regarding Advanced Settings

• Separate instruction available for appropriate personnel. Contact your local Welch Allyn Sales Rep or Clinical Consultant.
Thank you for choosing Welch Allyn®

Customer Care: 1-800-535-6663

Website: www.welchallyn.com