

# Service and Maintenance Toolset

## Connex<sup>®</sup> Vital Signs Monitor 6000 Series™



The following is the listing of tools to perform service and maintenance, as well as basic functional verification checks, full functional verification checks and calibration on the Welch Allyn Connex Vital Signs Monitor. Please refer to the device service manual for detailed descriptions of what these activities provide. *Note: These tools must also be readily available to complete Welch Allyn Technical Service Training for this device.*

### Required Service Tools and Test Equipment\*

Material Number	Description	Quantity Required	Usage
4500-925	Connectivity Accessory Kit - USB Cable	1	● ●
6000-30	1-Tube Blood pressure hose (5 ft)	1	● ●
660-0138-00	CABLE, PATCH 5' RJ45, T568B (Ethernet Network cable)	1	●
Download from Welchallyn.com	Welch Allyn Service Tool Software	1	● ●
Required to use with Service Tool version 1.8.0.0 or greater			
106270	VSM6000 SERVICE TEST BOX	1	●
Required to test NIBP			
407672	BP TEST VOLUME REPAIR FIXTURE	1	● ●
4500-30	Blood Pressure Hose (5')	1	● ●
620216	Fitting "Y" 1/8 x 1/8 x 1/8	1	● ●
Customer Supplied	<b>Pressure Meter</b> Unit must accommodate the following simulations: • Pressure range: 0-500 mmHg • Setting to 1 decimal points (.X) • Accuracy: +/- .05	1	● ●
Required to test Thermometry (SureTemp or Braun)			
01802-110	TESTER, CALIBRATION, 9600 PLUS (SureTemp – Silver with Cal-Key and Braun – Gold)	3	● ●
Required for Devices Equipped SureTemp Thermometry			
06138-000	CAL-KEY, ASSY, M690/692	1	● ●
Required for Devices Equipped With CO2 Monitoring			
Customer Supplied	<b>CO2 Calibration Kit</b> (Available from Air Liquide Healthcare America Corp 800-233-4334 - Item # Z03NI748BDC002– please see kit description below)	1	● ●
Required for Devices Equipped With Masimo Acoustic Respiration Rate (RRa)			
105460	Masimo RRa Tester	1	● ●
Required for Devices Equipped With Masimo SpO2			
Customer Supplied	<b>SpO2 Simulator</b> Unit must accommodate the following simulations: • BPM: 61 (+/-1) • Oxygen saturation: 81% (+/- 3)	1	● ●
Required For Devices Equipped with Nellcor SpO2			
DOC-10	CABLE, SpO2 EXTENSION, NELCOR	1	● ●
Customer Supplied	<b>SpO2 Simulator</b> Unit must accommodate the following simulations: • BPM: 60 (+/-1) • Oxygen saturation: 90% (+/- 1)	1	● ●

● Indicates equipment required for full functional verification checks and calibration. The Welch Allyn Service Tool software and an active Gold License is also required to perform these checks. The Gold License is obtained upon successful completion of Welch Allyn Technical Service Training.

● Indicates equipment used for basic functional verification checks. The Welch Allyn Service Tool software (Silver Level) can be used to perform the NIBP checks and SWF upgrades/updates as well as installing Licensable features on your device.\*\*

■ Indicates items only available from Welch Allyn, or a Welch Allyn distributor.



## Required Miscellaneous Off-the-Shelf Tools

The following tools are not available from Welch Allyn, but will be used in service and maintenance activities.

Description	Quantity Required
COMPUTER RUNNING WINDOWS XP, SP3 or Windows 7	1
USB CABLE: TYPE A to TYPE B (Minimum 3' length)	1
SPLINTER TWEEZER 3.5 INCH	1
NEEDLE NOSE PLIERS 6"	1
NETGEAR Router, A/B/G or Equivalent	1
PHILLIPS #2	1
PHILLIPS #1	1
10MM HEX BIT	1
TIE WRAP CUTTER	1
SCISSORS	1
TORX DRIVER	1
#10 TORX BIT	1
Tie WRAP Gun	2
SLOTTED SCREW DRIVER	1

Contact your Welch Allyn representative for more information regarding the toolset required for your configuration.

For more information on Welch Allyn Technical Service Training, visit [www.welchallyn.com/service](http://www.welchallyn.com/service)

\*The listed tools meet the performance requirements necessary to perform service and maintenance, as described in the Welch Allyn Connex® Vital Signs Monitor 6000 Series™ Service Manual. For complete details on test procedures and parameters, please review the service manual.

\*\*Customers may be able to perform basic functional verification checks using their own test equipment. Please consult a Welch Allyn Technical Representative to confirm whether your equipment meets the performance specifications required to complete these checks.

++ Needed to conduct a Full Calibration even if your device is not using Nurse Call.

### CO2 Calibration Kit - description

CO2 calibration kit includes 2 of the following:

- Calibration gas containing 5% CO2, 21% O2, Bal N2
- Tubing adapter ("T" piece)
- Calibration line (Calibration FilterLine)