




CPET BxB with ECG during Spirometry Workflow Quick Guide


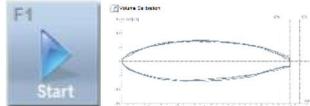
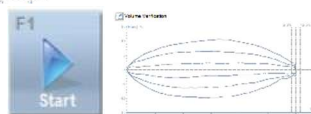
Vyntus™ ONE, Vyntus™ CPX

*Note: CPET BxB 'Program Settings' must be configured properly, see note on page 2.

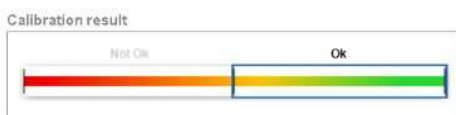
A. Volume Calibration of Digital Volume Transducer (DVT) Sensor (prior to each test)


1. Click on "**Calibration**" from the Home Page and then "**Volume Calibration**"
 
2. **For Vyntus™ CPX:** Perform **Automatic** Volume Calibration
 - a. Connect the DVT to the Automatic Calibration Port WITH the gas sample Twin Tube connected to the DVT
 
 - b. Click <F1> "**Start**" to start the "Automatic Volume Calibration"
 

For Vyntus™ ONE (optional for Vyntus™ CPX): Perform **Manual** Volume Calibration

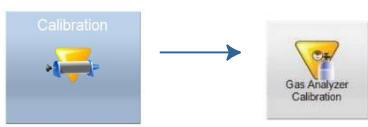

- i. For Vyntus™ ONE: Select device to be calibrated: Vyntus™ ONE CPET
- ii. Connect 3L syringe to DVT with sample line connected
 
- iii. Click <F1> "**Start**" and perform 3-5 strokes all at a medium flow rate (calibration)
 
- iv. Click <F1> "**Start**", select "**Verification**", and perform at least 3 strokes at varying flow rates between 0.5 – 12 L/s
 

3. After Volume Calibration/ Verification is completed, confirm successful with "Calibration result" graphic = "OK"



4. Click the "**Home**" button to return to the Home Page
 

B. Gas Analyzer Calibration for O₂ and CO₂ (prior to each test)

1. Click on "**Calibration**" from the Home Page and then "**Gas Analyzer Calibration**"
 
2. **For Vyntus™ CPX:** Connect the DVT to the Automatic Calibration Port on the Vyntus™ CPX with the gas sample Twin Tube connected to the DVT
 

Vyntus™ Quick Guide



For Vyntus™ ONE: Select device to be calibrated: Vyntus™ ONE CPET
Connect the Sample Line to the Cal Port on the Vyntus™ ONE
(unclip sample line from support arm if needed)



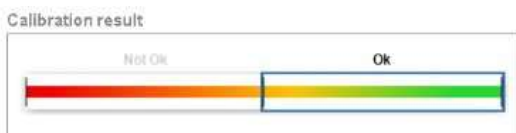
3. Click <F1> "Start" to start the Gas Analyzer Calibration



4. In case the following window appears, select the option "Calibration"



5. After the Gas Calibration is completed, confirm successful with "Calibration result" graphic = "OK"



6. Click the "Home" button to return to the Home Page



*Configuration Note for performing ECG during Spirometry:

For monitoring ECG during pre- or post-exercise spirometry, the following setup is required:

1. Large monitor should be configured as a Dual Display monitor with 2 cables**
2. Update 'Program Settings': CPET BxB → Settings → Program Settings → ECG/Data Source → Enable setting for 'Attach to running ECG' **Attach to running ECG**

NOTE: If CardioSoft™ opens on display 1 (i.e., on "top" of SentrySuite™) when starting '3rd Party Stress ECG', then SentrySuite™ can be changed to open on display 2.

Go to 'Global Settings' → 'General system' tab → 'Monitor Settings', make the below changes:

Start programs on monitor	2
Start 2nd level programs on monitor	1
Start animation on monitor	2

**If monitor is set as a 'single display' monitor (1 display cable) rather than a 'dual display' monitor (2 cables), contact Jaeger Technical Support for assistance.

C. Start 3rd Party Stress ECG

1. Select patient in SentrySuite™ (and prepare the patient with ECG electrodes & blood pressure cuff)

2. Select the measurement program **"3rd Party Stress ECG"** →

3. The following dialog box opens.

Select the **"Measurement"** icon.

- Cardiosoft ECG will then launch automatically
- Patient demographics transferred



4. On other screen, select the protocol in CardioSoft and click **"OK"**

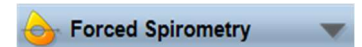


5. Click **"F1:pretest"** in CardioSoft → **Baseline Phase**



D. Perform Pre-Exercise Spirometry

1. Select the measurement program **"Spirometry"**, and perform forced spirometry measurements (see separate quick guide)



2. If desired, select the measurement program **"MVV"** and perform MVV measurement (see separate quick guide)



E. Workflow CPET BxB with CardioSoft ECG

1. Fit the patient with the mask & SpO2

2. Select the measurement program **"CPET BxB"** →



3. Place the DVT with the Sample Line/ Twin Tube anywhere (unmoving for zeroing phase)



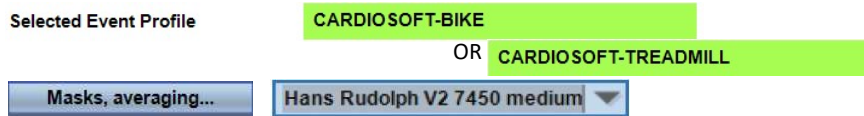
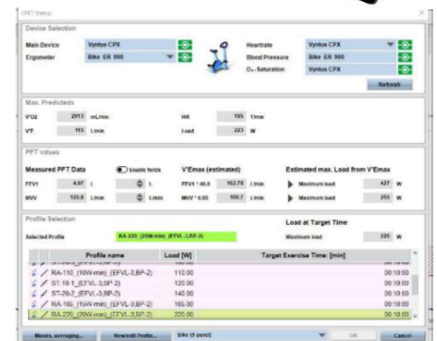
4. Click **<F1> "Start"** to open the 'CPET Startup' window



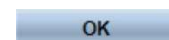
a. Confirm successful device selection (green icons)

b. Review 'predicted workload' data (to aid protocol selection in CardioSoft)

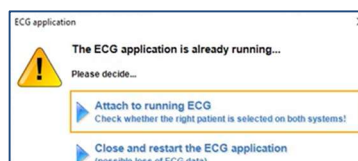
c. Confirm **"CardioSoft" Profile** selected and choose **mask size:**



5. Click **"OK"** in the Startup window to start the CPET BxB test →

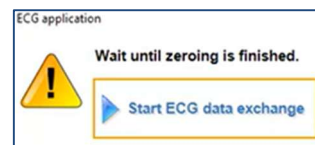


6. Select **"Attach to running ECG"** →



7. Once SentrySuite™ advances from **Zeroing Phase** to **Check Phase**, connect the DVT to the breathing mask
(No data is stored during Check Phase - use this time to "check" the quality of ECG and VO₂ data before advancing)

8. Click "**Start ECG data exchange**" to begin **Resting Phase** in SentrySuite™
(Collect the resting values; NO cycling on bike or walking on treadmill)



9. Click "**F1:pretest**" in CardioSoft → **Warmup Phase**
(Perform unloaded cycling at 0 Watts or "F9:start tmill" to start treadmill)




10. Click "**F2:exercise**" in CardioSoft → **Test Phase**
(Load will increase [Watts or Speed + Grade] to perform exercise test)



11. Click "**F3:recovery**" in CardioSoft → **Recovery Phase**
(Continue for 1+ min as load decreases; use "F10:STOP tmill" to stop treadmill)



12.  Click <**F3**> "**Stop**" in SentrySuite™ to end the gas exchange data collection
Note: For Post-Exercise spirometry, select "Spirometry" from Measurement dropdown; Add 'Post' level.)


13. When ready, click "**F4:test end**" in CardioSoft to end the ECG recording →
(Consider patient condition and ECG before stopping the recording)




a. Click "**YES**" to confirm "Test end?", and then click "**OK**"

b. Close the CardioSoft program by clicking the following icons →



14.  Click <**F11**> "**Workflow**" in SentrySuite™ to begin a customized CPET post-test data review
Example below: (The order and methodology of data review will vary. To review all data, use <**F4**> "**Edit**".)

- a. **Baseline and Peak values** - choose physiologically appropriate ranges
- b. **Threshold (AT) selection** - from SentrySuite™ threshold options VT1, VT2, VT3, or no selection
- c. Review/edit **slope calculations** - most commonly VO₂/Workload and VE/VCO₂ ('Slopes 1')
- d. View, add and/or edit **Markers** - blood pressure, RPE, blood gas, etc
 May also use '**Offline Data Input**' for missing values → 
- e. Add end of **test comments** and/or use **Exercise Summary** comment template

15. Select desired **CPET report** to SAVE or PRINT