



**BIOPAK 240R MAINTENANCE TOOL KIT
User Manual
TOOL KIT PART NUMBER: B6-02-5003-79-0
Revision A**

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About the Maintenance Tool Kit:

The Maintenance Tool Kit, B6-02-5003-79-0, provides the user with all test equipment and tools required to conduct original manufacturer specified maintenance as directed by the BioPak 240R Benchman Manual. The kit is supplied in a rigid and water proof case to provide ease of transport and equipment protection. The kit is supplied from the factory with an analog pressure gauge, bleed control valves and all tools and equipment required to service the BioPak 240R respirator.

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Description of the Maintenance Tool Kit

The following are the details to describe the BioPak Maintenance Tool Kit:

Part Number:	B6-02-5002-16-3
Form:	Solid, compact, international orange or black color, water-tight, air-tight, dust-tight, lockable (lock not included), plastic case
Dimension of Tester:	40 x 32 x 18 cm
Weight of the Tester:	5.5 kg

The Maintenance Kit is supplied with the following tools and equipment:

<u>Description</u>	<u>Part Number</u>	<u>Quantity</u>
Flow Test Fixture	B6-02-5000-15-0	1
Test Key Tool	B6-02-5000-17-2	2
Vent Valve Hand Wrench	B2-03-3000-01-0	1
Demand Port Wash Plug	B2-06-6002-60-0	8
Regulator Wash Cover	B2-02-5400-04-0	1
Combination Pick Tool	B2-03-1000-10-0	1
#00 Phillips Head Screwdriver	B2-03-1000-15-0	1
#1 Phillips Head Screwdriver	B2-03-1000-03-0	1
#2 Phillips Head Screwdriver	B2-03-1000-16-0	1
1/8" Slotted Screwdriver	B2-03-1000-22-0	1
3/16" Slotted Screwdriver	B2-03-1000-01-0	1
1/4" Hex Driver	B2-03-1000-17-0	1
3/16" Nut Driver	B2-03-1000-09-0	1
5/16" NutDriver	B2-03-1000-12-0	1
9/32" Nut Driver	B2-03-1000-21-0	1
3/8" x 5/16" Open End Wrench	B2-03-1000-04-0	2
5/8" x 9/16" Open End Wrench	B2-03-1000-05-0	1
7/16" Combination Wrench	B2-03-1000-06-0	2
1/2" Combination Wrench	B2-03-1000-13-0	1
Leak-Tec Leak Detection Fluid, 8-ounce Bottle	B5-01-3000-03-0	1
Tool Storage Pouch	B2-02-7001-28-0	1
3/8" Outside Diameter Rubber Tubing, 6-Foot	B4-02-6037-00-0	1
Stopwatch	B2-03-1000-20-0	1
AV3500/PRO Mask Leak Check Adapter Fitting	B6-02-5003-00-0	1
3/32" T-Handle Hex Key	B2-03-1006-00-0	1
User Manual	B5-06-6900-15-0	

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Various Tests That Can Be Performed With The Maintenance Tool Kit:

Note: The following tests are only provided as an example of testing that can be conducted with the Maintenance Tool Kit. Refer to The BioPak 240R Benchman Manual for full details of testing.

- Constant Flow Test:** Provides testing of the constant oxygen flow rate into the breathing loop of the BioPak 240R.
- Low Pressure Leak Test:** Provides gas-tightness testing of the BioPak 240R breathing loop.
- High Pressure Leak Test:** Provides gas-tightness testing of the BioPak 240R oxygen cylinder connection, pressure regulator, high-pressure gas lines and remote pressure gauge.
- Vent Valve Relief Test:** Provides testing of breathing pressure required to open the breathing loop over-pressure valve.

All other testing required for the BioPak 240R respirator DO NOT require tools of any kind.

Self-Calibration of the Maintenance Tool Kit:

The Maintenance Tool Kit only requires field-adjustment of the internal pressure gauge periodically. Whenever the internal pressure gauge of the kit does not read zero (0) pressure with all ports fully open, then adjustment is required as follows:

1. Open the vent valve of the tool kit located on the top panel.
2. Verify that no tubing is connected to the vent port on the top panel of the tool kit.
3. Place the tool kit on a flat surface.
4. Use a screwdriver to adjust the ZERO screw, located on the dial of the pressure gauge, so that the gauge pointer aligns with the zero (0) pressure indication.

The Maintenance Tool Kit pressure gauge plumbing can be leak tested as per the following procedure:



1. Connect an aspirator bulb to the input barb of the tool kit as depicted above. Verify that the vent valve of the kit is CLOSED.
2. Slowly squeeze the aspirator bulb to achieve a pressure reading between 15-20 mbar on the tool kit pressure gauge. One squeeze of the bulb is usually sufficient to achieve the pressure reading. **Do not over pressure the system.**
3. Allow the aspirator bulb and the tool kit to sit undisturbed for a period of one minute.

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4. The pressure gauge reading shall not change during the one-minute period. If the reading moves downward there is a leak in the tool kit or the aspirator bulb that must be found and corrected. If the reading moves upward, the aspirator bulb may have been disturbed or may been depressed again during the one-minute period.
5. Remove the aspirator bulb after successfully completing the test procedure.



There are no other field adjustments required of the Maintenance Tool Kit.

Original Manufacturer Information

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