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Warnings, Cautions, Notes

**WARNING**
A WARNING alerts the user to the possibility of injury, death or other serious adverse reactions associated with the use or misuse of the device. It also describes potential serious adverse reactions and safety hazards.

**CAUTION**
A CAUTION alerts the user to the possibility of a problem with the device associated with its use or misuse, such as device malfunction, device failure, damage to the device, or damage to other property.

**NOTICE**
A NOTE emphasizes information of particular importance.

For complementary information consult Chapter 2 of the HAMILTON-C1 Operator’s Manual.
1 Inventory, Tools

**HAMILTON-C1**
PN 161001

High pressure oxygen connector (incl. nut & nipple connector)
① PN 160470 DISS or
② PN 160471 NIST

Coaxial breathing set with single-use Flow Sensor
PN 260087

Inspiratory Filter
PN 279963

Filter Set (Additional)
PN 161275

Screwdriver T10
PN 239615

Battery
PN 369108

Demonstration lung
PN 151815

Powercord
PN 355198 USA
PN 355199 GB
PN 355200 EU
PN 355308 Chinese

Language Kit
PN 161020 English
PN 161021 Spanish
PN 161022 German
PN 161023 French
PN 161024 Italian
PN 161026 Russian
PN 161027 Chinese
PN 161028 Portuguese

Feature Icons
PN 161737

Feature Icons Positioning Guides
PN 161975
2 Packaging

1: Store the original packaging for later use. This will protect the equipment if you have to move it.
3  Set Up

3.1  DISS / NIST

1: Remove the yellow cap.

2: Insert the NIST or DISS connector supplied.

3: Make sure both screws are tight.

⚠️ CAUTION

Take care when you install the NIST or DISS connector. The connector must be flush with the connector plate. See the Installation Guide, PN 612219.03 for detailed installation instructions.
4 Check the O2 Cell

1: Remove the air filter cover screw (indicated) then remove the air filter cover.

2: Check that there is an O2 cell inserted.

3: Remove the O2 cell plug and check that the O2 cell is tight.

4: If the cell feels loose or moves in the socket then turn it to the right (clockwise) until it is tight.

5: If no cell is inserted you must obtain one before switching the unit on. Contact Hamilton for assistance.

6: Put the plug back into the O2 cell.

7: Attach the air filter cover removed earlier.
5 Connecting to AC Power

5.1 Insert the Battery

Read the Operator’s Manual, Section 2.8 Connecting to a Power Source and Section 2.9 About the Battery before you begin.

**NOTICE**

- To prevent unintentional disconnection of the power cord, make sure it is well seated into the ventilator’s socket and secured with the power cord retaining clip.
- Install the ventilator in a location where the primary power can be easily disconnected.
- The HAMILTON-C1 does not require protective earth grounding, because it is a class II device, as classified according to IEC 60601-1.

1: Open the battery cover flap on the front of the unit and fully insert the battery.

2: Attach the battery cover using the two captive screws on the cover.

3: Close the battery cover flap.
5.2 Power Cord

NOTICE

- Connect the HAMILTON-C1 to an outlet that supplies AC power between 100 and 240 V, 50/60 Hz.
- Always check the reliability of the AC outlet.

1: Insert the power cord.

2: Fix the cable with the power cord retaining clip.

3: When you switch the power on, the AC power symbol in the bottom right corner of the screen is displayed with a frame around it.
6 Attach the Feature Icons

1: Attach one feature icons positioning guide to the front, lower left of your ventilator (as shown).

2: Attach the appropriate feature icons (as shown).

3: Remove and discard the positioning guide.
7 Document History

<table>
<thead>
<tr>
<th>Revision 00</th>
<th>December 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision 01</td>
<td>January 2014</td>
</tr>
<tr>
<td>Revision 02</td>
<td>June 2014</td>
</tr>
<tr>
<td>Revision 03</td>
<td>January 2016. Feature icons added, illustrations updated.</td>
</tr>
</tbody>
</table>
## 8 Testing & Acceptance

### HAMILTON-C1 Initial Install Report

Date in YYYY-MM-DD: 

Name of person who performed installation: 

Serial number of HAMILTON-C1: 

Location of installation: 

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Perform or observe...</th>
<th>Verify...</th>
<th>Notes</th>
<th>Performed and verified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verify that the DISS or NIST connector is mounted correctly.</td>
<td></td>
<td>Connector is mounted correctly.</td>
<td>For details see Section 3.1 in this Installation Guide.</td>
<td>□</td>
</tr>
<tr>
<td>Make sure an O2 cell is inserted.</td>
<td></td>
<td>O2 cell is inserted and tight.</td>
<td>For details see Section 4.8 in the HAMILTON-C1 Service Manual.</td>
<td>□</td>
</tr>
<tr>
<td>Connect the ventilator to an AC power supply and an oxygen supply.</td>
<td></td>
<td>Breathing circuit is correctly assembled.</td>
<td>For details see Section 2.3 in the HAMILTON-C1 Operator’s Manual.</td>
<td>□</td>
</tr>
<tr>
<td>Assemble the patient breathing circuit.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Switch on the power.</td>
<td></td>
<td>When the ventilator is switched on the buzzer sounds and the red alarm lamp flashes. After the self test is passed the alarm lamp flashes again.</td>
<td>The buzzer sounds only briefly, at the beginning.</td>
<td>□</td>
</tr>
<tr>
<td>Use the configuration setting to choose the language.</td>
<td></td>
<td>Appropriate language is set OK.</td>
<td></td>
<td>□</td>
</tr>
<tr>
<td>Set the date and time correctly.</td>
<td></td>
<td>Time and date are OK.</td>
<td>For details see Section 3.3.5 in the HAMILTON-C1 Operator’s Manual.</td>
<td>□</td>
</tr>
<tr>
<td>Perform the electrical safety tests.</td>
<td></td>
<td>Document the measured values.</td>
<td>For details see Section 8 in the HAMILTON-C1 Service Manual.</td>
<td>□</td>
</tr>
<tr>
<td>Make sure the ventilator is in standby and select ‘Preop check’ from the Patient setup window.</td>
<td></td>
<td></td>
<td>For details see Section 4.4 in the HAMILTON-C1 Service Manual.</td>
<td>□</td>
</tr>
<tr>
<td>Open the System &gt; Tests &amp; calib window. Select and run the Tightness test then the Flow Sensor calibration. Close the window.</td>
<td></td>
<td>These tests pass.</td>
<td>For details see Section 3.3 in the HAMILTON-C1 Operator’s Manual.</td>
<td>□</td>
</tr>
</tbody>
</table>
### Procedure

<table>
<thead>
<tr>
<th>Perform or observe...</th>
<th>Verify...</th>
<th>Notes</th>
<th>Performed and verified</th>
</tr>
</thead>
<tbody>
<tr>
<td>If necessary perform the O2 cell calibration. Close the window.</td>
<td>This test passes.</td>
<td>For details see Section 3.3 in the HAMILTON-C1 Service Manual.</td>
<td>[ ]</td>
</tr>
<tr>
<td>Generate an alarm situation (e.g. disconnect the mains power).</td>
<td>Corresponding alarm message in message bar (e.g. loss of external power).</td>
<td>During standby, patient alarms are suppressed. For details see Section 3.5 in the HAMILTON-C1 Operator’s Manual.</td>
<td>[ ]</td>
</tr>
<tr>
<td>Resolve the alarm situation (e.g. re-connect the mains power).</td>
<td>Alarm is reset.</td>
<td></td>
<td>[ ]</td>
</tr>
<tr>
<td>Check that the feature icons are attached to the front of your ventilator.</td>
<td>Feature icons attached.</td>
<td></td>
<td>[ ]</td>
</tr>
</tbody>
</table>