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www.hamilton-medical.com
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# Conventions

## Notes, Cautions and Warnings

**Note**
This format emphasizes information of particular importance.

---

**CAUTION**
This format 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.

---

**WARNING**
This format alerts the user to the possibility of injury, death, or other serious adverse reactions associated with the user or misuse of the device.
HAMILTON-S1/G5 Installation Guide

1.1 HAMILTON-S1 Inventory and Tools

- G5 Standard Trolley
  PN 159121

- G5 Universal Trolley
  PN 159120

- PN 159120 Trolley, Column and Rear Tubing Brackets

- PN 159005 Ventilation Unit (VU)

- PN 159107 Interaction Panel (IP)

- PN 159581 IP Mount

- PN 159118 Rail / Handle

- PN 159147 Column Extension Kit a)

- PN 159141 Ventilair II Table a)

- PN 155600 (220V) Ventilair II Compressor a)

- PN 159142 Gas Cylinder Mounting Kit a)

- PN 159145 Basket and Mounting Brackets

- Internal Cable Bracket

- Power Strip (available for different national standards)

- Power Cable (available for different national standards)

- HAMILTON-S1 Sticker Set (language specific)

- Heliox Option (Installation Guide 624461)

- Short adjustable Humidifier kit

- Allen Key Set

- PN 500077 ESD Wrist Band

- Small and Medium Screwdrivers
**Note**
a) compatible with Universal Trolley only
1.2 HAMILTON-G5 Inventory and Tools

- **G5 Standard Trolley**
  - PN 159121

- **G5 Universal Trolley**
  - PN 159120

- **Trolley, Column and Rear Tubing Brackets**
  - PN 159120

- **Ventilation Unit (VU)**
  - PN 159001

- **Interaction Panel (IP)**
  - PN 159106

- **IP Mount**
  - PN 159581

- **Rail / Handle**
  - PN 159118

- **Column Extension Kit**
  - PN 159147

- **Ventilair II Table**
  - PN 159141

- **Ventilair II Compressor**
  - PN 155600 (220V)

- **Gas Cylinder Mounting Kit**
  - PN 159142

- **Basket and Mounting Brackets**
  - PN 159145

- **Power Strip**
  - (available for different national standards)

- **Power Cable**
  - (available for different national standards)

- **Internal Cable Bracket**
  - PN 159135

- **Extended Battery Holder and Battery**
  - PN 159144

- **Heliox Option**
  - Installation Guide 624461

- **CO₂ Option**
  - Sensor not included

- **Allen Key Set**
  - PN 500077 ESD Wrist Band

- **Small and Medium Screwdrivers**
  - PN 159136

- **Software Option Key**

---

*March 4, 2016  PN 624092/11  1-3*
Note
a) compatible with Universal Trolley only

1.3 Standard Packaging

Figure 1-1. Overview Packaging for IP and VU

<table>
<thead>
<tr>
<th>Pos</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Foam-protection for IP and VU packaging</td>
</tr>
<tr>
<td>B</td>
<td>IP and VU safely stored</td>
</tr>
<tr>
<td>C</td>
<td>IP and VU on wooden transportation stand</td>
</tr>
</tbody>
</table>
1.4 Column to Trolley Assembly

1.4.1 There are two different Trolleys. The S1/G5 Standard Trolley and Universal Trolley.

1.4.2 Attach the Column to the Trolley Base

1. Place the Trolley Base (A) on the floor and latch the Front Wheel Brakes (B). Wheels with Brakes are positioned to the front of the HAMILTON-S1/G5 Ventilator.

2. Lower the Column (C) onto the Trolley Base (D).

Figure 1-2. Trolley Base Preparation, Step 1

Figure 1-3. Positioning the Column onto the Trolley Base, Step 2
3. Attach the Column to the Standard Trolley Base with 8 Hex Allen screws M8x25 (E) (PN 400647) and 8 Washers (F) (PN 409009).
   Attach the Column to the Universal Trolley Base with 8 Hex Allen screws M8x25 (E) (PN 400647).

Figure 1-4. Attaching the Column to the Trolley Base, Step 3
1.4.3 **Column Extensions Assembly (PN 159147)**

**Note**
The Column Extension is compatible with S1/G5 Universal Trolley (PN 159120) only

**Note**
An Extended Column is needed when a Ventilair II Compressor is to be used with the HAMILTON-S1/G5 Ventilator.

1. Lay the Column on a flat surface. Face the open sides of the Column Extensions (A) to the outside. The threaded screw holes (B) are for attaching the Column to the Column Extensions and must be on the bottom.
2. Attach the Column Extensions with 8 Hex Allen screws M8x25 (C) (PN 400647).

![Figure 1-5. Attaching the Column Extensions, Step 1](image)

3. Lower the Extended Column (D) onto the Trolley Base (E).

![Figure 1-6. Positioning the Extended Column onto the Trolley Base, Step 2](image)
4. Attach the Extended Column to the Trolley Base with 8 Hex Allen screws M8x25 (F), (PN 400647).

Figure 1-7. Attaching the Extended Column to the Trolley Base, Step 3
1.4.4 Ventilair II Compressor Table Assembly (PN 159141)

**Note**
- The Ventilair II Compressor can be used only on a HAMILTON-S1/G5 with an Universal Trolley and an Extended Column.
- The Basket cannot be used when the Ventilair II Compressor is in position.

1. Position the Ventilair II Compressor Table (A) under the bottom rear of the Trolley (C).
2. Attach the Ventilair II Compressor Table with 4 Hex Allen screws (B) M8x25 (PN 400098) to the Trolley Base (C).

![Figure 1-8. Attaching the Ventilair II Compressor Table](image)

1.4.5 Power Strip Installation

1. Open the front door of the column.
2. Position the power strip (A) and attach with 2 Hex Allen screws (B) M4x8 (PN 400024).
3. Install up to 3 special blocking screws (C) M4x45 (PN 400313) on positions as required.

![Figure 1-9. Installing the Power Strip, Step 1](image)

![Figure 1-10. Installing Blocking Screws, Step 2](image)
4. Fix the power cable with a cable clip (D) with one Allen screw M4x8 (PN 400024).

![Figure 1-11. Fix the Power Cable Clip, Step 3](image)

5. Route the cables below and behind the top-edge (E) of the column.

![Figure 1-12. Prevent cable damage at risk area, Step 4](image)

6. Fix the power cable holding-bracket (F) with two Hex Allen screws (G) M4x8 (PN 400024).

![Figure 1-13. Power Cable Holding Bracket, Step 5](image)
1.4.6 **Ventilair II Compressor Assembly (PN 155600, 220V)**

**Note**
In case the basket is fitted to the trolley it is not possible to place the compressor.

1. Assemble the four feet (A). Mount the Slider (C) with Countersunk Hex Allen Screw (D) to the Ventilair II Compressor Damper (B).

![Figure 1-14. Assemble four feet, Step 1](image1)

2. Mount four feet (A) to the bottom of the Ventilair II Compressor (E).

![Figure 1-15. Fix four feet (A) to the Ventilair II Compressor, Step 2](image2)
3. Lift the Ventilair II Compressor (E) onto the Compressor Table and push it towards the column until it stops at the bends on the Table.

![Figure 1-16. Place the Ventilair II Compressor onto the Compressor Table, Step 3](image)

1.4.7 Ventilation Unit (PN 159100) to Trolley Assembly

**CAUTION**

Ensure that the cables at the rear are not damaged (sheared) while fitting the VU.

![Figure 1-17. Prevent cable damage at this risk area, Step 1](image)
**Note**
The front of the VU must face the Column Door and the Wheels with Brakes.

1. Position the VU (A) carefully onto the Column (B) and ensure that the power cables are not damaged during assembly. Take care not to damage the Main Cover (C) during assembly onto the Trolley.

![Figure 1-18. Mount the VU to the Column, Step 2](image)

**CAUTION**
*During assembly of the VU to the Trolley, be careful not to damage the Main Cover (C).*

2. Open the door of the Column.
3. Attach the VU with eight Hex Allen screws (D) M6x16 (PN 400648) and eight M6 washers (E) (PN 409108).

![Figure 1-19. Mounting the VU to the Column, Step 3](image)
4. Secure the Power Cables to the bottom of the VU with the plastic cable clip (F) and the frame brackets (G) already in place.

![Figure 1-20. Securing the Electrical Cables, Step 4](image)

**1.4.8 Basket Assembly (PN 159145)**

**Note**
If the HAMILTON-S1/G5 uses the Ventilair II Compressor, it is not possible to attach the Basket.

1. Attach the two mounting brackets (A) to the rear of the Column, using the four Hex Allen screws (B) already in place.

![Figure 1-21. Attach Mounting Brackets to the rear of the Column, Step 1](image)
2. Hang the Basket (C) top-down into the slots of the mounting brackets.

![Figure 1-22. Position the Basket onto the Mounting Brackets, Step 2](image)

### 1.4.9 Rear Tubing Brackets Assembly

1. Install the rear tubing brackets (A) on the underside of the VU with two Hex Allen screws M6x14 (B) (PN 403594) for each bracket.

![Figure 1-23. Installing the Rear Tubing Brackets to the VU](image)
1.4.10 **Adjustable Humidifier Kit (PN 159541)**

**Note**
If the HAMILTION-S1/G5 uses the Ventilair II Compressor or Basket or gas cylinder mounting kit, it is not possible to attach the adjustable humidifier kit.

1. Remove the upper 2 screws on the side where the mounting kit should be placed on.
2. Fix the rail with the two delivered screw to the Column

![Figure 1-24. Attach adjustable humidifier kit to the rear of the Column](image)

3. Mount the holding arm (PN 160151) onto the rail

1.4.11 **Short adjustable humidifier Kit (PN 159663)**

**Note**
The adjustable humidifier mounting kit is a stand alone kit. If one of the accessories like compressor or gas cylinder mounting kit is installed, they have to removed first. They can not be used in combination with the short adjustable humidifier kit but can be used with the basket.

1. Remove the upper 2 screws on the side where the items of the kit should be placed on.
2. Fix the short rail with the two delivered screws (M6x60)

![Figure 1-25. Mounting the adjustable humidifier kit](image)

3. Mount the holding arm (PN 160151) onto the rail
1.5 Shelf Mount Installation

To secure the HAMILTON-S1/G5 Ventilator Unit to a shelf, proceed as follows:

1. Make the appropriate holes for M6 size screws in the shelf as indicated in Blue on section (A) of the drawing in Figure 1-24. The dimensions are:
   - 75mm from the front of the VU to the screw holes centers
   - 90mm between screw holes centers
   - 90mm from the left side to the left hole center
   - 90mm from the right side to the right hole center

2. Determine the M6 Hex Allen screw length taking into consideration the thickness of the shelf (B), plus 10mm maximal distance the screw can enter the VU chassis (C), plus 4mm difference between the rubber feet and the chassis bottom (D) as indicated in Figure 1-24.

Figure 1-26. Shelf Mount Drawings
3. The two M6 Hex Allen screws and two M6 Washers are positioned to the rear center two positions of the chassis bottom.

**CAUTION**

Maximum screw length entering into the VU Chassis is 10mm. There is a gap between the VU Chassis and the Rubber Feet of 4mm.
1.6 Interaction Panel Installation

1.6.1 Overview of Mounting Options

Figure 1-28. Swivel Mount (left) and Front Rail Mount (right)

Figure 1-29. Left Side Mount (left) and Right Side Mount (right)
1.6.2 IP - Top Mount Assembly (PN 159581)

**CAUTION**

Take ESD precautions while working with the VU Main Cover open.

1. Remove four Hex Allen screws (B) M6x60 (PN 420742) to remove the lateral holding brackets (C).
2. Remove the VU Main Cover (A).

![Figure 1-30. Main Cover removal, Step 1](image)

3. Unscrew the Round Cover (D) from the Main Cover.
4. Re-install the Main Cover (A).

![Figure 1-31. Round Cover removal, Step 2](image)
5. Insert the IP - Mount (F) with the alignment pin hole (G) positioned to the front of the VU.
6. Attach the IP - Mount with the Hex Allen screw (E) M8x15 provided.

![Figure 1-32. Install Swivel Holder, Step 3]

**CAUTION**
Tighten the screw properly.

### 1.6.3 Rail Handle Assembly (PN 159118)

1. Remove four Hex Allen screws (B) M6x60 (PN 420742) and the Lateral Holding Blocks (A).

![Figure 1-33. Remove Lateral Holding Blocks, Step 1]

2. Slide the Rail Handle (C) from the top over the VU with the wider bow facing the rear.
3. Snap the Rail Handle to the pre-centering pins (E) of the Lateral Distance Blocks (D).
4. Attach the Rail Handle with four Hex Allen screws (F) M6x60 (PN 420742).

Figure 1-34. Assemble the Rail Handle, Step 2
1.6.4 Side Mount Bracket(s) Assembly (PN 159112 )

**Note**
If only one Side Mount Bracket Assembly is used, re-install the original Lateral Holding Block on the opposite side of the Side Mount Bracket Assembly.

1. Remove four Hex Allen screws (B) M6x60 (PN 420742) and the Lateral Holding Blocks (A).
2. Remove the Main Cover from the VU.
3. Remove Hex Allen screw (D) M4x8 (PN 400501) and Washer (E) (PN 409907) to remove the Lateral Distance Block(s) (C) from the Main Cover.
4. Re-use Hex Allen screw (D) M4x8 (PN 400501) and Washer (E) (PN 409907) to mount the new Lateral Distance Block(s) (F) included with the Side Mount Bracket(s).
5. Re-install the Main Cover (G) to the VU.
6. Attach the Side Mount Bracket(s) (H) to the Main Cover Lateral Distance Block(s) with the Countersunk Hex Allen screws M6x40 (PN 403611) (I) provided.

![Figure 1-37. Main Cover with Side Mount Bracket(s), Step 3](image1)

**Note**
The Rear Tubing Brackets cannot be used when the Side Mount Bracket(s) are in use.

7. Attach the Side Mount Bracket(s) (H) to the bottom of the VU at the Rear Tubing Brackets mounting position, with the Countersunk Hex Allen screws (J) provided.

![Figure 1-38. Bottom of VU with Side Mount Bracket(s), Step 4](image2)
### 1.6.5 Interaction Panel Assembly

**Note**
To install the IP, the Clamp Knob Mechanism must be completely opened.

1. Open the IP Clamp Knob Mechanism (C) completely.
2. Position the IP Clamp (A) over the bracket where the IP will be mounted.
3. Fully tighten the grip (B) with the IP Clamp Knob Mechanism (C) onto the mounting bracket.

![Clamp Knob Mechanism](image1)

**Figure 1-39. Clamp Knob Mechanism**

![Swivel Mount on top of the VU](image2)

**Figure 1-40. Swivel Mount on top of the VU**

![Front Rail Mount](image3)

**Figure 1-41. Front Rail Mount**
1.7 **Gas Cylinder Holding Brackets (PN 159142) Installation**

**Note**
Install Gas Cylinder Holder to S1/G5 Universal Trolley (PN 159120) only.

### 1.7.1 Installing the Top Bracket

**Note**
Normally the Top Bracket is installed at the upper position. If the Column is extended, the Top Bracket is installed to the lower position (D).

1. Remove two Hex Allen screws (A) from the back of the Column. Install the Top Bracket (B) to the rear of the Column using the same screws. The Tank Straps (C) are located on each side of the Column.
1.7.2 Installing the Left/Right Bottom Brackets

1. Set the top part of the Brackets (G) onto the Trolley and fix it with the Disks (F) and Hex Allen screws (E) (PN 400079) from the bottom through the opening in the Trolley. The Tank Straps (H) are located on each side of the Column.

![Figure 1-44. Mounting the Bottom Brackets](image)

1.7.3 Attaching the Tanks

1. Attach tanks with a smaller diameter (I) with the smaller straps. Tanks with a larger diameter (J) require the larger straps.

![Figure 1-45. Mounting Tanks](image)
1.8 Extended Battery Installation (PN 159144)

1. Connect the cable connector (C) from the Battery Holder to the connector (A) at the bottom of the VU.
2. Securely attach with the integrated screws (B).

**CAUTION**
When removing the connector, make sure to loosen the correct (inner) two screws (B), if the outer screws (D) are removed, the whole assembly will drop down.

---

**Figure 1-46. Extended Battery Connector Connection, Step 1**

**Figure 1-47. Extended Battery Connector, Step 2**
3. Attach the battery-holder (E) with three Hex Allen screws (F) M4x8 (PN 400024) to the inside of the column.

![Figure 1-48. Battery Holder Installation, Step 3](image)

4. Depress the battery latch (G), then insert the battery (H).

![Figure 1-49. Battery Installation, Step 4](image)
1.9 Mixer Block Fittings Configurations

**CAUTION**
- DO NOT use any tool to remove the connectors from the Mixer Block.
- DO NOT use any lubricant for the O-rings or any other part of the connector assembly.

1.9.1 Exchange NIST for DISS (Air and Oxygen)

1. Remove two Hex Allen screws (A) M3x8 (PN 400263) from each Air or Oxygen connector.
2. Remove by pulling the connector (B) out from the Mixer Block without using tools.
3. Check that the O-rings (C) are well seated on the new connectors.
4. Install the new connectors (D) by inserting them into the Mixer Block.
5. Tighten the screws (A) to secure the connectors firmly to the Mixer Block.

![Removal of DISS Connectors, Step 1](image1)

![Installation of NIST Connectors, Step 2](image2)
1.10 Heliox Option Installation

Follow the instruction guide PN 624461
1.11 CO₂ Option Installation

1. Two Hot swappable Option Ports (A and B) are provided at the front of the HAMILTON-S1/G5. Either can be used for the CO₂ Sensor Adapter.

![Figure 1-52. Hot Swappable Option Ports, Step 1](image)

2. Remove the cover plate.

![Figure 1-53. Cover Plate Removal, Step 2](image)

3. Insert the CO₂ Sensor Adapter (C) into the opening.

![Figure 1-54. CO₂ Sensor Adapter Insertion, Step 3](image)

**Note**
The same steps (1 - 3) are considered for SpO₂ PN 159137 or CO₂ PN159136 or CO₂/SpO₂ PN159139 or AeroNeb PN159148 or AeroNeb.PN159149.
1.12 **IntelliCuff Option Installation**

Follow the instruction guide PN 624351
1.13 Connections

1.13.1 IP Power and Communications Cable

1. Connect the Power and Communications Cable (A) from the IP to the round plug on the rear of the VU.

CAUTION
To remove the data plug: PUSH first the lock (B) with a screwdriver and then pull the plug.

Figure 1-55. IP Power and Communication Cable
1.13.2 Power Connection and Mains Power Switch

**WARNING**

- Always disconnect the HAMILTON-S1/G5 Ventilator from external Mains Power and switch the HAMILTON-S1/G5 Ventilator OFF, before opening the Main Cover
- Disconnect the PMS from the Ventilation Unit Motherboard (connector P309) to isolate the batteries from supplying power to the HAMILTON-G5 before performing service

1. Connect the VU with the appropriate Mains Power Cable (A) (either from the built in power strip or an external power source).
2. Lift the cover of the Mains Power Switch (B) to switch ON the HAMILTON-G5 Ventilator.

![Figure 1-56. Power Connection and Mains Power Switch](image-url)
1.14 Labeling Concept

1.14.1 Overview of Labels

The Label Kit is supplied as part of the Language Specific Installation Kit. Displayed below are the English version labels (PN 159519).

![Label Set]

**Figure 1-57. Label Set**

<table>
<thead>
<tr>
<th>Pos</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>VU-Rear: Electrical characteristics warning, caution, CE-Declaration</td>
</tr>
<tr>
<td>B</td>
<td>VU-Rear: Serial and special interfaces</td>
</tr>
<tr>
<td>C</td>
<td>IP-Rear: Electrical hazard warning</td>
</tr>
<tr>
<td>D</td>
<td>VU-Front: Nebulizer and flow sensor indication</td>
</tr>
<tr>
<td>E</td>
<td>not required</td>
</tr>
<tr>
<td>F</td>
<td>not required</td>
</tr>
<tr>
<td>G</td>
<td>VU-Rear: Air and Oxygen information (pressure, volume)</td>
</tr>
<tr>
<td>H</td>
<td>VU-Front: To/from patient indication, warnings</td>
</tr>
</tbody>
</table>
Figure 1-58. Service Label

Figure 1-59. ASV, P/V and NEO Labels

<table>
<thead>
<tr>
<th>Pos</th>
<th>PN</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>262385</td>
<td>VU Lateral Panel: Service sticker</td>
</tr>
<tr>
<td>K</td>
<td>159380</td>
<td>VU-Front: ASV</td>
</tr>
<tr>
<td>L</td>
<td>159382</td>
<td>VU-Front: Optional Pressure/Volume P/V</td>
</tr>
<tr>
<td>M</td>
<td>159383</td>
<td>VU-Front: Optional Neonatal NEO</td>
</tr>
</tbody>
</table>
Note
The Software Version Labels are attached to the HAMILTON-S1/G5 Ventilator during assembly. When the software is upgraded, the labels will need to be updated as well to reflect the new version software version.

### 1.14.2 Installation of Labels

1. Apply the Label (C) to the rear of the IP.

---

**Figure 1-60. SW Labels**

<table>
<thead>
<tr>
<th>Pos</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>IP Software Version Label</td>
</tr>
<tr>
<td>Q</td>
<td>VU Software Version Label</td>
</tr>
</tbody>
</table>

**Figure 1-61. Electrical Hazard Warning Label**
2. Apply Label (D) on the front of the VU.

![Nebulizer and Flow Sensor Label](figure1-62.png)

Figure 1-62. Nebulizer and Flow Sensor Label

3. Apply Label (H) below the patient connections on the front of the VU

![To/From Patient Indicator, Warnings Label](figure1-63.png)

Figure 1-63. To/From Patient Indicator, Warnings Label
4. Apply the Optional Labels (K, L or M) on the front of the VU.

**Note**
Labels for Options (such as P/V) must not be attached, if that option is not decoded.

5. Apply (G) Air and Oxygen Label to the back of the VU above the Mixer Block Assembly.

![Optional Decoding Labels](image1)

**Figure 1-64. Optional Decoding Labels**

![Air and Oxygen Information Label](image2)

**Figure 1-65. Air and Oxygen Information Label**
6. Apply Label (B) on the rear of the VU near the Interface Connectors.

7. Apply Label (A) on the rear at the bottom of the VU.
8. Apply Label (J) on the side panel of the VU.

**Note**

The Base Label with the Red Arrow is applied first, then the next PM Year and Month Label is applied onto the Base Label with the Red Arrow indicating the correct month within the next PN Year.

![Figure 1-68. Service Sticker Label](image)
1.15 **Software Options**

After assembly completion, the system is ready for configuration. Purchased Options (i.e., P/V, NEO, etc.) must be decoded and configured before they can be used. For this purpose you have received the appropriate data Software Option Key. To decode and configure the options proceed as follows:

1. De-press the Main Switch (rear of VU) to start the VU.
2. After start-up, press the two buttons on the IP Keypad as displayed below.

![Configuration Screen Access, Step 1](image)

3. Press the **Configuration** Tab (A) at the bottom of the screen.
4. Press the **Options** Button (B) on the left side of the screen.

**Note**
Enter the **CODE** provided on the Software Option License Form on the Hex-Decimal Keypad (C). The Alpha Numeric Code is displayed on the screen (D). Press the Back Key (E) if a mistake is entered. After the number is entered correctly, press the Enter Key (F). If required, use the Clear options key (H) to remove all entered options.

![Options Screen, Step 2](image)

**Note**
Keep care of the Software Option Keys with your unit documentation.
5. The Software Options will be displayed (G) on the screen.

6. Press Close/Save.

7. Proceed to the Testing and Acceptance Section.
1.16 Testing and Acceptance

1.16.1 Testing

After the options have been configured according to the requirements, a few tests must be conducted for acceptance of the HAMILTON-S1/G5.

For the testing, refer to the HAMILTON-S1/G5 Initial Install Report Form at the end of this guide.

**CAUTION**

All tests should be performed according to the HAMILTON-S1/G5 Test report. Test procedure and report to be available only with the service manual. Report Form before using the HAMILTON-S1/G5 to ventilate a patient. Perform required testing before placing the HAMILTON-S1/G5 into service to verify proper performance.

1.16.2 Acceptance

After successful testing, complete any forms to release the HAMILTON-S1/G5 into the custody and responsibility of the customer.
1.17 Unpacking Pre-assembled HAMILTON-S1/G5

**CAUTION**

All tests should be performed according to the *HAMILTON-S1/G5 Initial Install Report Form* before using the HAMILTON-S1/G5 to ventilate a patient. Perform required testing before placing the HAMILTON-S1/G5 into service to verify proper performance.

An optional method for the customer is to provide the HAMILTON-S1/G5 in a pre-assembled and pre-configured state. To unpack, proceed as follows.

1. Check the overall condition of the box.
2. Open the top of the box and check the condition of its content.

**Note**

If the box or its contents appear to be damaged, report to your superior for further action.

3. Remove the packaging upwards from the assembled HAMILTON-S1/G5 and prepare for unloading from the pallet.
4. Unload the HAMILTON-S1/G5 carefully
1.18 Storage of packaging

In case the HAMILTON-S1/G5 must be shipped at a later stage to another destination, it is advisable to store the original packaging for later use to protect the equipment from transport damage.

**Note**
Keep at least the main packaging designed for the Interaction Panel and Ventilation Unit.
## Document History

<table>
<thead>
<tr>
<th>Revision</th>
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<tbody>
<tr>
<td>Revision 00</td>
<td>May, 2007</td>
<td></td>
</tr>
</tbody>
</table>
| Revision 01 | March, 2008 | • Updated instrument photos with ProductView Images, where possible  
• Added installation instructions for:  
  • Shelf Mounting of the HAMILTON-G5  
  • CO2 Option Installation  
  • Heliox Option Installation  
  • Interaction Panel mounting options  
• Updated text where applicable |
| Revision 02 | September, 2008 | • Added installation instructions for software version 1.20e |
| Revision 03 | June, 2009 | • Added heliox optional (including gas-switch-over) |
| Revision 04 | March, 2010 | • G5 Standard Trolley  
• IP - Mount and Swivel Mount updated |
| Revision 05 | October, 2010 | • Update of the whole installation guide for HAMILTON-S1/G5 |
| Revision 06 | April, 2011 | • Extended Battery with a new outfit  
• Adjustable Humidifier Kit  
• New design of the SAP cover |
| Revision 07 | July, 2011 | • Description of IntelliCuff  
• Added Configuration transfer to an other instrument |
| Revision 08 | November, 2011 | • Link to IntelliCuff Guide  
• Link to Heliox Guide |
| Revision 09 | July, 2013 | • Adjusted for SW 2.31 |
| Revision 10 | February, 2015 | • Adjusted for SW 2.4x |
| Revision 11 | March, 2016 | • SW revision removed  
• Phone and fax number changed |