



HAMILTON-C6

Installation Guide

REF 160021

Software version 1.1.x

627075/04 | 2020-12-07

CE 0197

HAMILTON
MEDICAL
Intelligent Ventilation since 1983

Installation Guide

HAMILTON-C6

2020-12-07

627075/04

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HAMILTON-C6 ventilator documentation suite

This guide is part of a documentation suite that includes, among others, the following documents:

Document title	Description
<i>HAMILTON-C6 Installation Guide (this guide)</i>	Provides installation and setup information for the ventilator and the trolley.
<i>Operator's Manual</i>	Provides detailed information about the setup and use of the HAMILTON-C6 ventilator.
<i>INTELLiVENT-ASV Operator's Manual</i>	Provides setup and use information for the INTELLi-VENT-ASV ventilation mode.
<i>Pulse Oximetry Instructions for Use</i>	Provides setup and use information for using SpO2 and related sensors with the ventilator.
<i>Volumetric Capnography User Guide</i>	Provides reference information for CO2 capnography.
<i>HAMILTON-H900 Instructions for Use</i>	Provides specifications, and setup and use information for the HAMILTON-H900 humidifier.
<i>IntelliCuff Instructions for Use</i>	Provides specifications, and setup and use information for the IntelliCuff cuff pressure controller.
<i>Aerogen Solo/Aerogen Pro Instructions for Use</i>	Provides specifications, and setup and use information for the Aerogen Solo and Aerogen Pro nebulizers.
<i>Communication Interface User Guide</i>	Provides an overview of the communication interface, including how to connect the ventilator to external devices for data communication and support for nurse call remote alarms.
<i>Service Manual</i>	Provides information about installing and setting up the medical equipment, as well as additional technical and servicing information for the ventilator.
<i>EMC Declarations Guide</i>	Provides emissions and EMC-related safety and use information.

Be sure to read the documentation before using the device or accessories.

To download the latest version of this manual or other documents, free of charge, visit the MyHamilton website. To register, go to: <https://www.hamilton-medical.com/MyHamilton>

Hamilton Medical offers the Hamilton Medical College, which provides a variety of learning modules free of charge. To register, go to: <http://college.hamilton-medical.com/>

Intended use of this guide

This Installation Guide provides step-by-step instructions on how to install the HAMILTON-C6 ventilator unit and its accessories efficiently and safely

The HAMILTON-C6 Installation Guide is intended for hospital technicians, biomedical engineers, or certified service technicians/engineers only.

Conventions used in this guide

Safety messages are displayed as follows:

 **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.

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

Intended use of this guide

The HAMILTON-C6 ventilator is intended to provide positive pressure ventilatory support to adults and pediatrics, and optionally infants and neonates.

Intended areas of use:

- Health care facilities
- During transfer of ventilated patients within health care facilities

The HAMILTON-C6 ventilator is a medical device intended for use by qualified, trained personnel under the direction of a physician and within the limits of its stated technical specifications.

Document history

Document version No.	Amendment	Date of issue
00	First release	August 2017
01	– Interaction panel mounting options: rail mount clamp option added. – Testing and acceptance report added.	September 2017
02	– Combined shelf mount solution for IP, VU and tubing support arm with quick-lock added – IP mounting options updated: VESA mount adapter plate added to VESA mount option. – Trolley basket assembly added. – Oxygen supply hose hanger added.	October 2019
03	– Electrical safety tests made mandatory after the initial installation of the HAMILTON-C6 ventilator. – Electrical safety tests added to <i>Testing and Acceptance Report for Initial Installation</i>. – Contents and part numbers revised.	September 2020
04	– Bed docking system assembly added. – Contents and part numbers revised.	December 2020

HAMILTON-C6 Installation Guide

Ventilator Unit and Interaction Panel Overview

English | 627075/04

REF 160021

Components

- A Interaction Panel (IP) / monitor
- B Ventilator Unit (VU)

Note: The ventilator power cable is country-specific. Order the power cable specific to the mains power outlet of your country.

A 3-meter (PN 160785) or a 10-meter (PN 160786) VU-IP cable is also available.

Safety information

⚠ WARNING

Turn off the VU and disconnect the power cable from the mains power supply before you start the installation. This will prevent possible electric shock or damage to the IP or the VU.

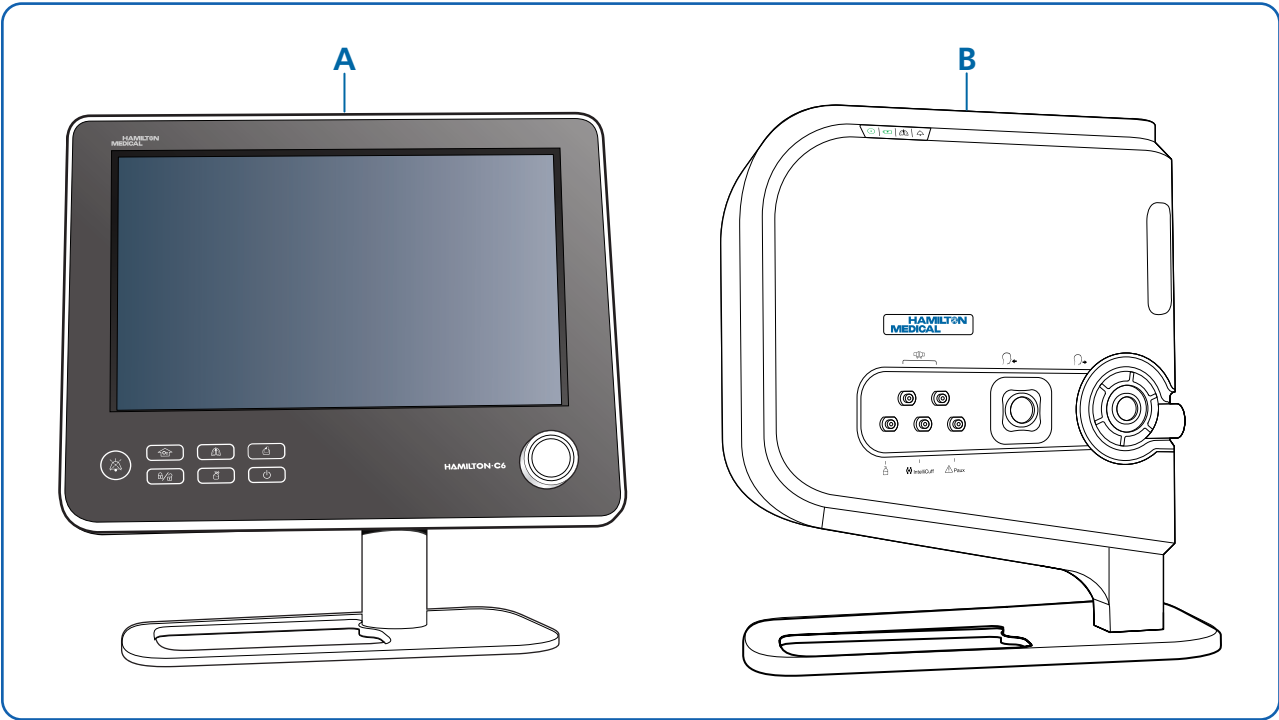
Tests and checks after installation

You must do the electrical safety tests after the initial installation of the HAMILTON-C6 ventilator.

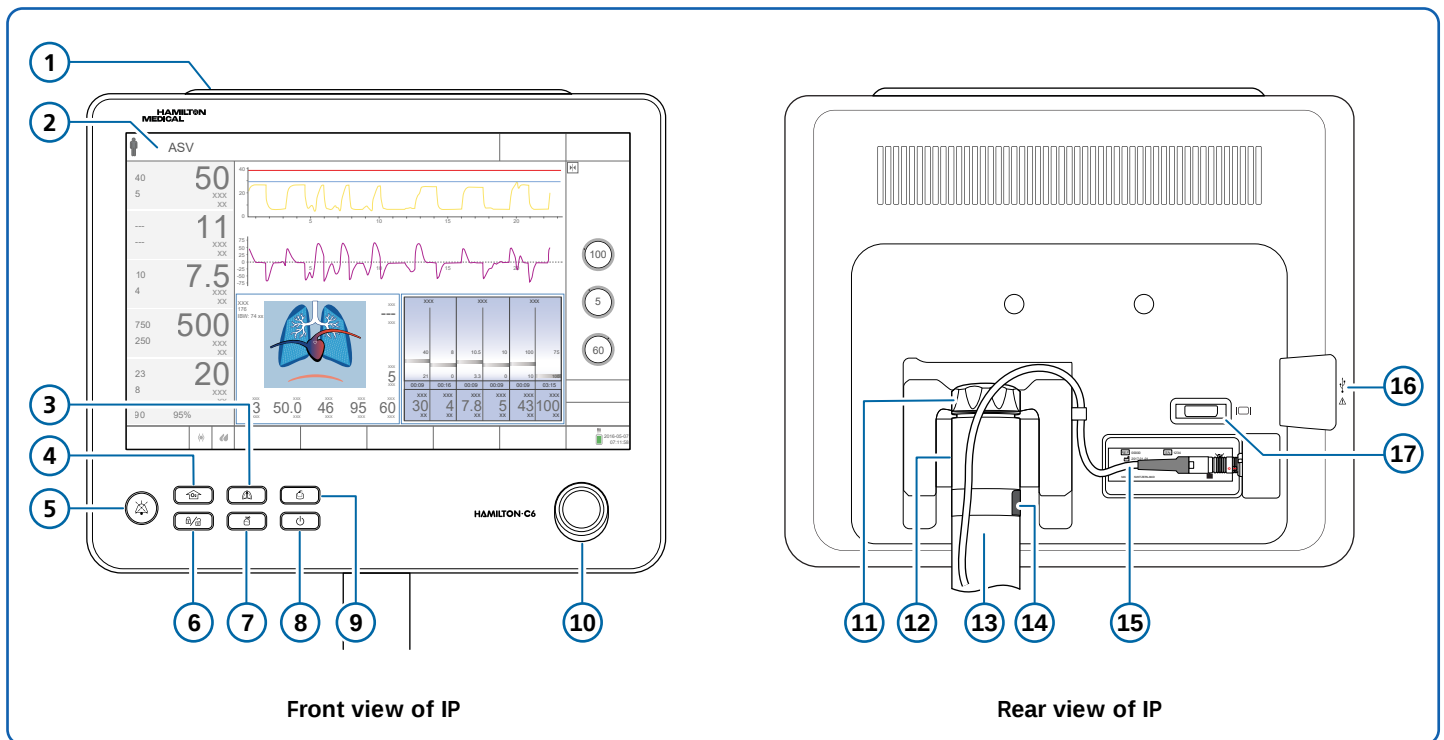
Configure the HAMILTON-C6 ventilator at the place of installation according to the institution's or hospital's protocol.

For additional details on the electrical safety tests and preoperational checks, refer to the *HAMILTON-C6 Service Manual* (PN 627038) and the *HAMILTON-C6 Operator's Manual* (PN 624945).

Fill in the HAMILTON-C6 ventilator *Testing and Acceptance Report* after the initial installation. See Chapter 21.

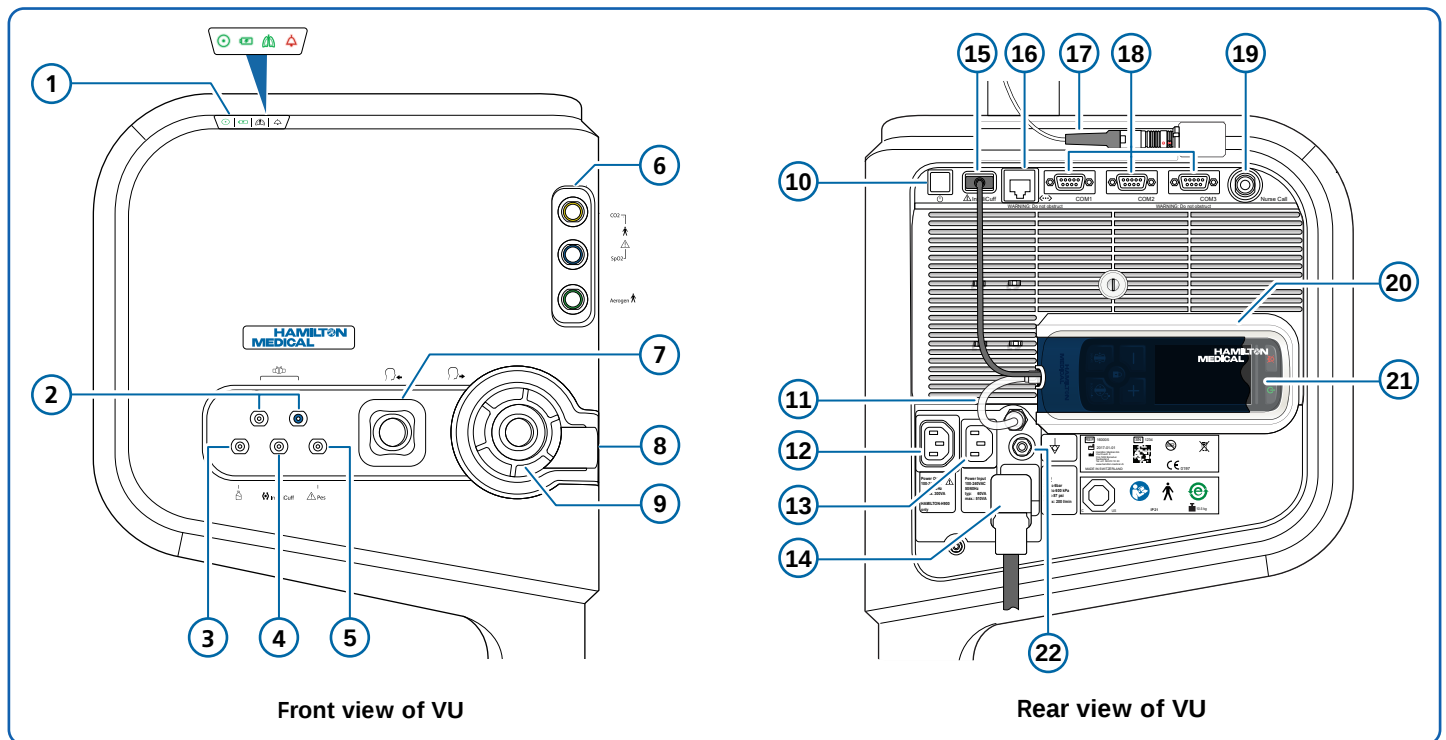


Interaction Panel Overview



- | | | | |
|----------|---------------------|-----------|---|
| 1 | Alarm lamp | 10 | Press-and-Turn (P&T) knob |
| 2 | Touchscreen display | 11 | Adjustment knob for IP tilt and swivel |
| 3 | Manual breath key | 12 | Tilt and swivel mount assembly |
| 4 | O2 enrichment key | 13 | IP mounting post |
| 5 | Alarm silence key | 14 | Lock/release button for IP mount |
| 6 | Screen lock/unlock | 15 | VU-IP cable (connected between IP and VU) |
| 7 | Nebulizer key | 16 | USB port |
| 8 | Power/Standby key | 17 | DVI signal output port
(for training purpose only) |
| 9 | Print screen key | | |

Ventilator Unit Overview



- | | | | |
|----|---|----|---|
| 1 | Status indicator panel | 12 | HAMILTON-H900 humidifier AC power output |
| 2 | Flow sensor ports | 13 | HAMILTON-C6 ventilator AC power input |
| 3 | Pneumatic nebulizer port | 14 | High-pressure oxygen port for DISS or NIST connector |
| 4 | IntelliCuff port | 15 | USB port for IntelliCuff communication cable |
| 5 | Pes port | 16 | LAN port (internal use only) |
| 6 | Communication board with CO ₂ , SpO ₂ , and, Aerogen® ports (optional)* | 17 | VU-IP cable (connected between IP and VU) |
| 7 | To patient port | 18 | RS-232 ports: COM 1, COM 2, and COM 3** |
| 8 | From patient port | 19 | Nurse call port |
| 9 | Expiratory valve set | 20 | IntelliCuff housing |
| 10 | Power/Standby button | 21 | Integrated IntelliCuff with communication cable and cuff tube |
| 11 | IntelliCuff cuff tube | 22 | Potential equalization conductor |

* When the communication board is not installed, this area is covered with a blank cover.

** COM 3 port is reserved only for HAMILTON-H900 humidifier communication cable.

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HAMILTON-C6 Installation Guide

Trolley Assembly

English | 627075/04

REF 160130

Required tools

Allen key (size: 6 mm)

Safety information

⚠ WARNING

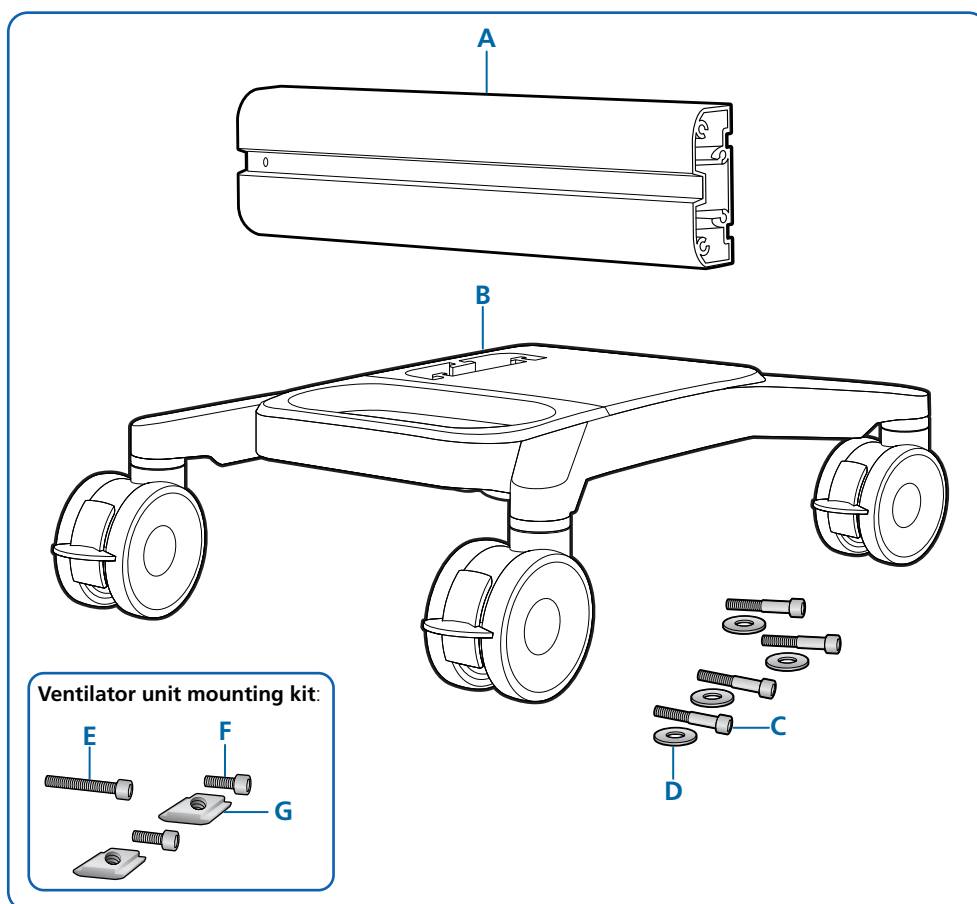
- The weight of the trolley package is 24 kg (53 lb). Two persons are necessary to lift the trolley or use an applicable lifting equipment.
- Do not put more than the permitted weight on the trolley. The maximum permitted weight (safe working load) on the trolley is 80 kg (176 lb).

Components

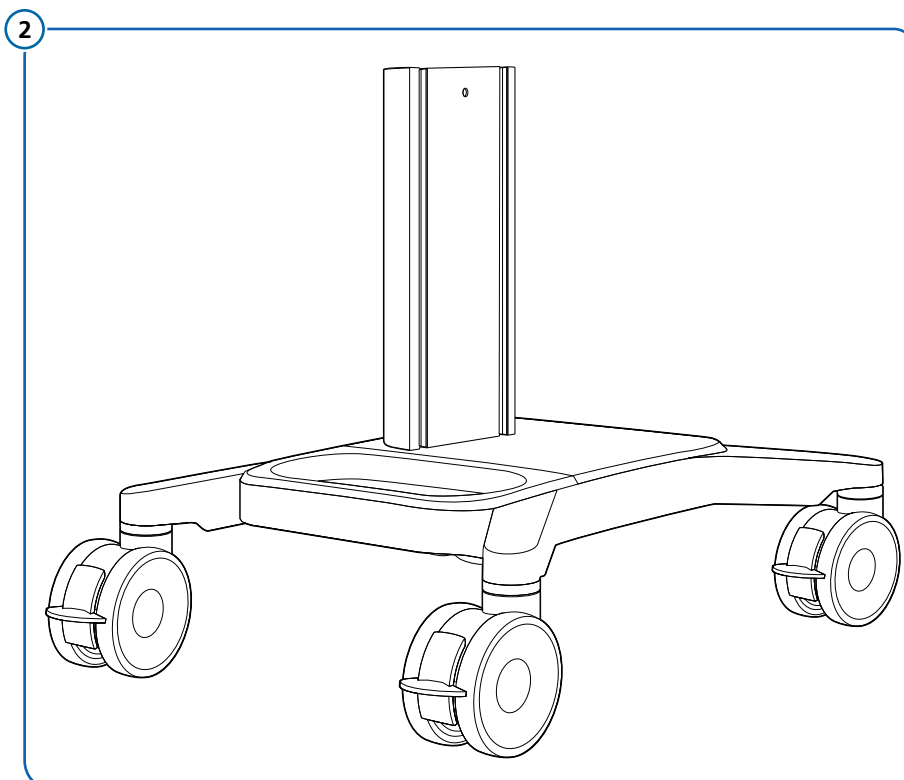
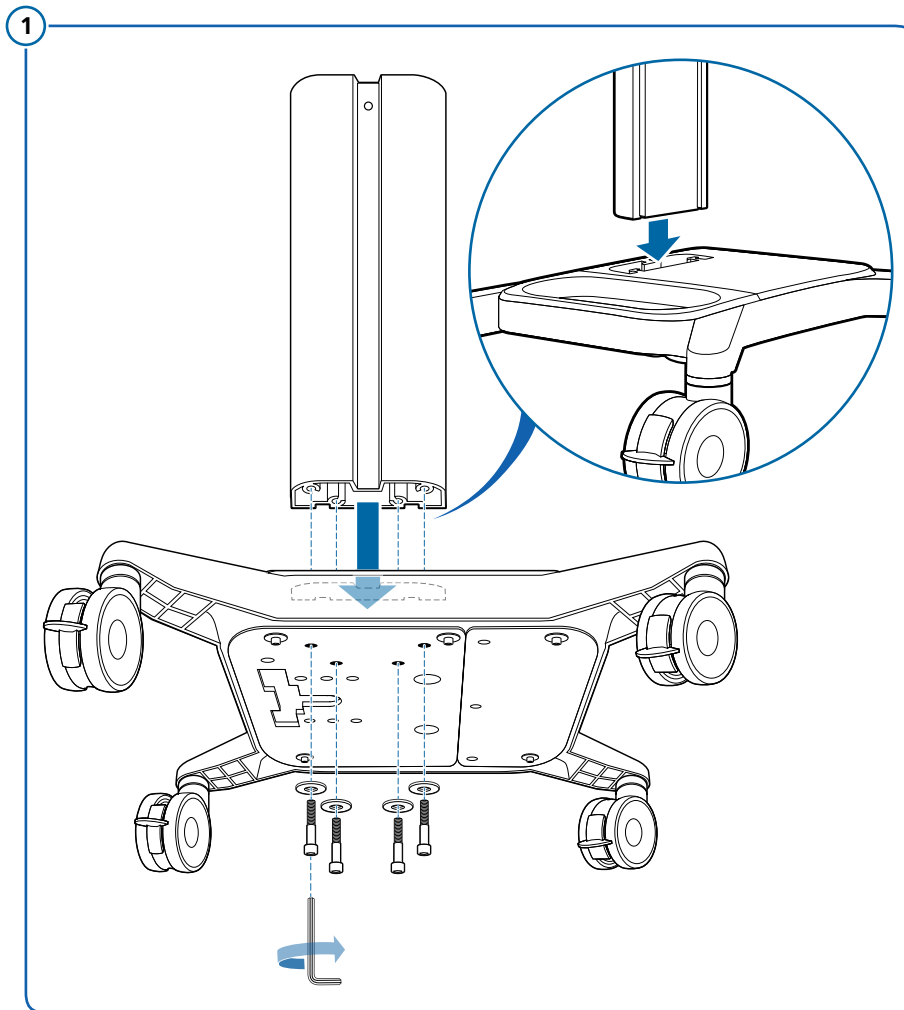
- A** 1 x Trolley column
- B** 1 x Trolley base
- C** 4 x Hex socket cap screws, M8 x 45 mm
- D** 4 x Washers A2 stainless steel, 25 (OD) x 8.4 (ID) mm
- E** 1 x Hex socket cap screws, M6 x 50 mm*
- F** 2 x Hex socket cap screws, M6 x 14 mm*
- G** 2 x Slot-nuts*

* Screws and slot-nuts for mounting the HAMILTON-C6 ventilator unit on the trolley.

Note: See the Trolley Configuration Chapter for details on how to mount the ventilator unit on the trolley.



How to assemble the HAMILTON-C6 ventilator trolley



REF 160029

Required tools

- Slotted screwdriver (size: # 3 or # 4)
- Allen key (sizes: 5 mm and 6 mm)

Components

- A** 1 x Interaction Panel (IP) / monitor*
- B** 1 x Ventilator Unit (VU)*
- C** 1 x IP mounting kit (PN 160181)
Contains:
 - C1** 1 x IP mounting post
 - C2** 1 x Hex socket cap screw, M8 x 55 mm
 - C3** 1 x Dock washer, 32 (OD) x 9 (ID) x 7 (H) mm

* Not included. Must be ordered separately with PN 160021.

Note: See the Trolley Assembly Chapter for details on how to assemble the trolley.

The ventilator power cable is country-specific. Order the power cable specific to the mains power outlet of your country.

A VU-IP cable (PN 952300 (0.65 m), or PN 160785 (3 m), or PN 160786 (10 m)) is required for the installation. Not included.

Safety information

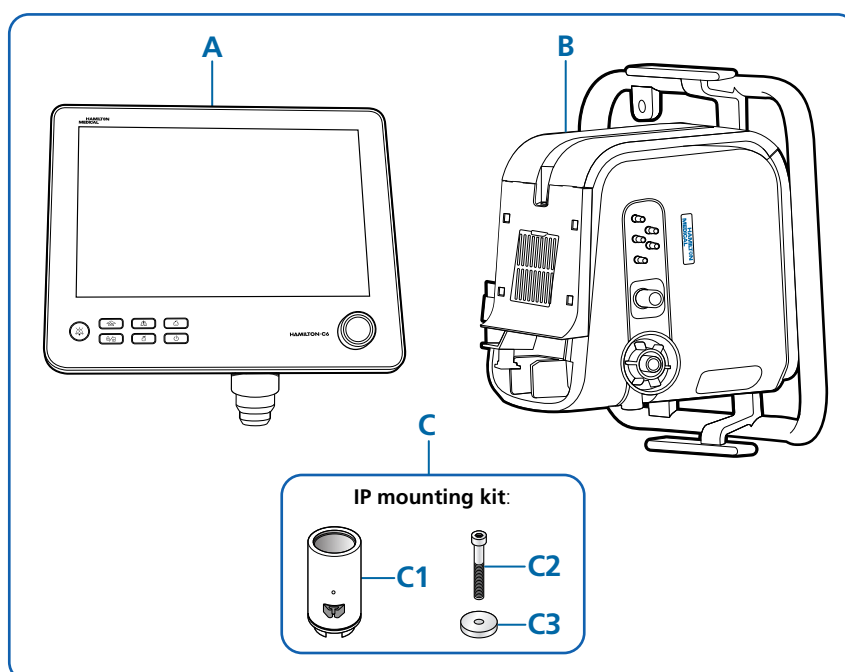
⚠ WARNING

The weight of the package for the IP and the VU with rail is 20 kg (44 lb). Two persons are necessary to lift the IP and the VU package or use an applicable lifting equipment.

Tests and checks after installation

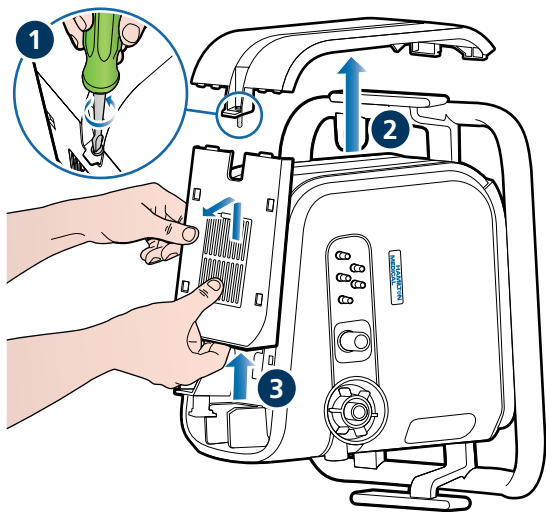
For details on the electrical safety tests and preoperational checks on the HAMILTON-C6 ventilator, see Chapter 1 – Ventilator Unit and Interaction Panel Overview.

Fill in the HAMILTON-C6 ventilator *Testing and Acceptance Report* after the initial installation. See Chapter 21.

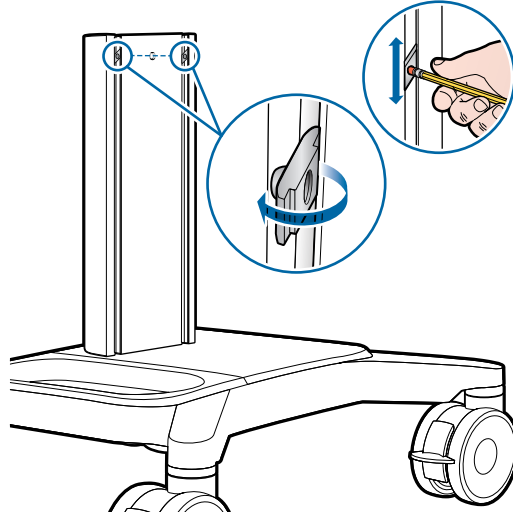


How to assemble the VU on the trolley column

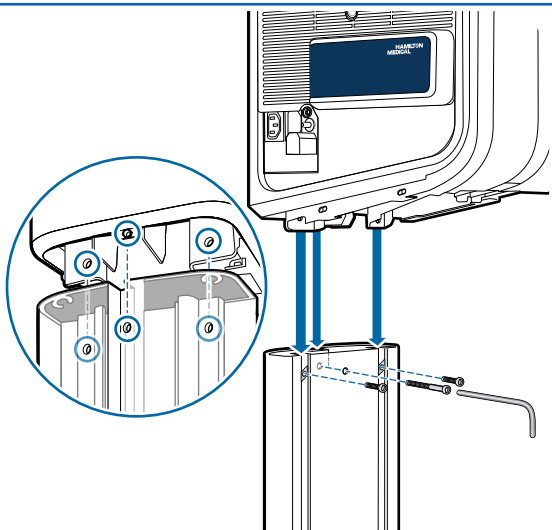
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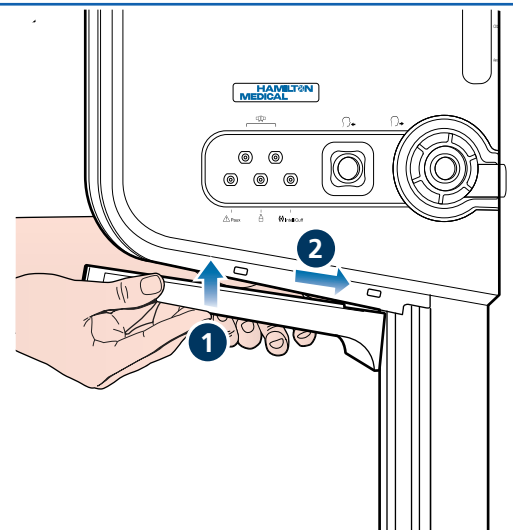
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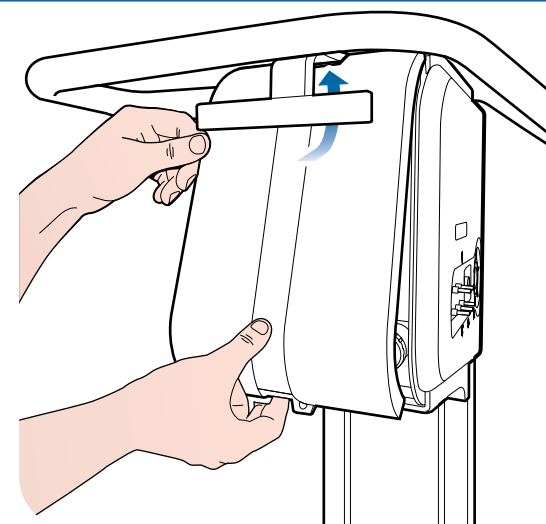
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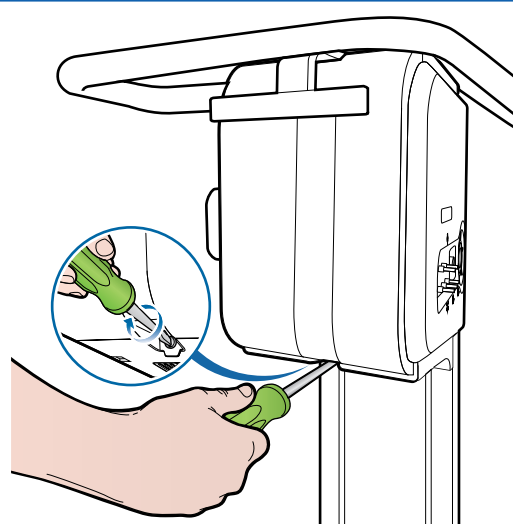
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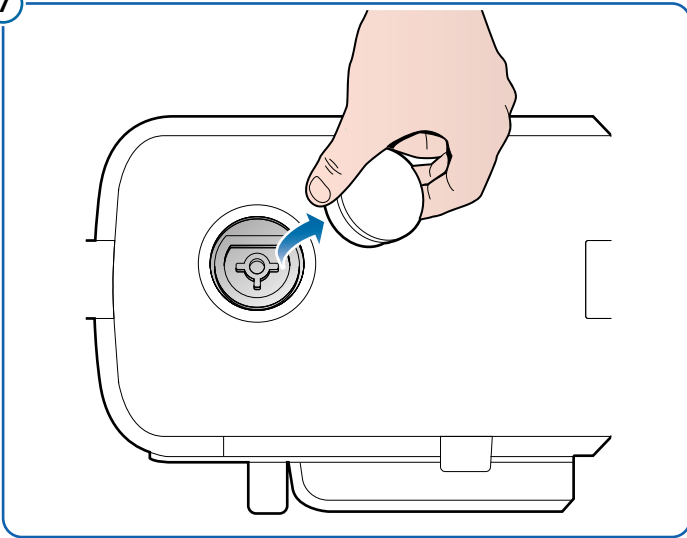


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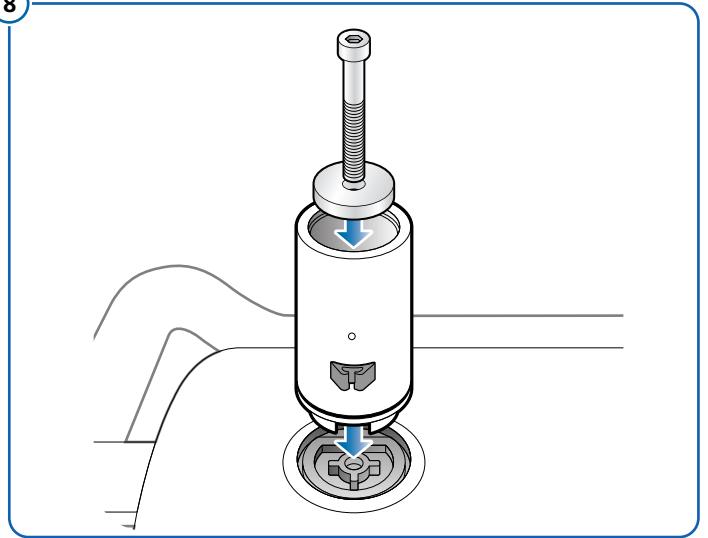


How to assemble the IP on the VU

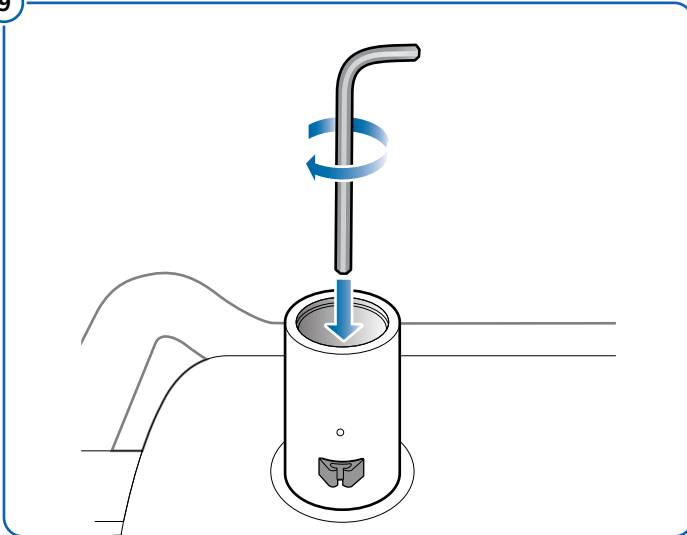
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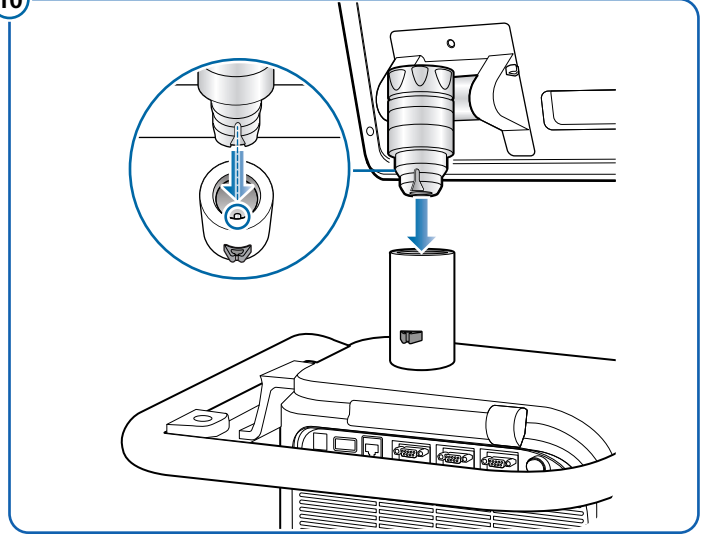
8



9



10



11



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HAMILTON-C6 Installation Guide

Shelf Mount Solution Assembly

English | 627075/04

REF 160030

Required tools

Torx T20 screwdriver for cable clip assembly

Components

- A** Interaction Panel (IP) / monitor*
- B** Ventilator Unit (VU)*
- C** IP stand
- D** Ventilator power cable**
- E** VU-IP cable**
Length: 3 m (PN 160785) or 10 m (PN 160786)

* Not included. Must be ordered separately with PN 160021.

** Not included. Must be ordered separately.

Note: The ventilator power cable is country-specific. Order the power cable specific to the mains power outlet of your country.

Safety information

⚠ WARNING

The weight of the IP with shelf-mount and the VU with shelf-mount package is 20.5 kg (45.2 lb). Two persons are necessary to lift the IP and the VU or use an applicable lifting equipment.

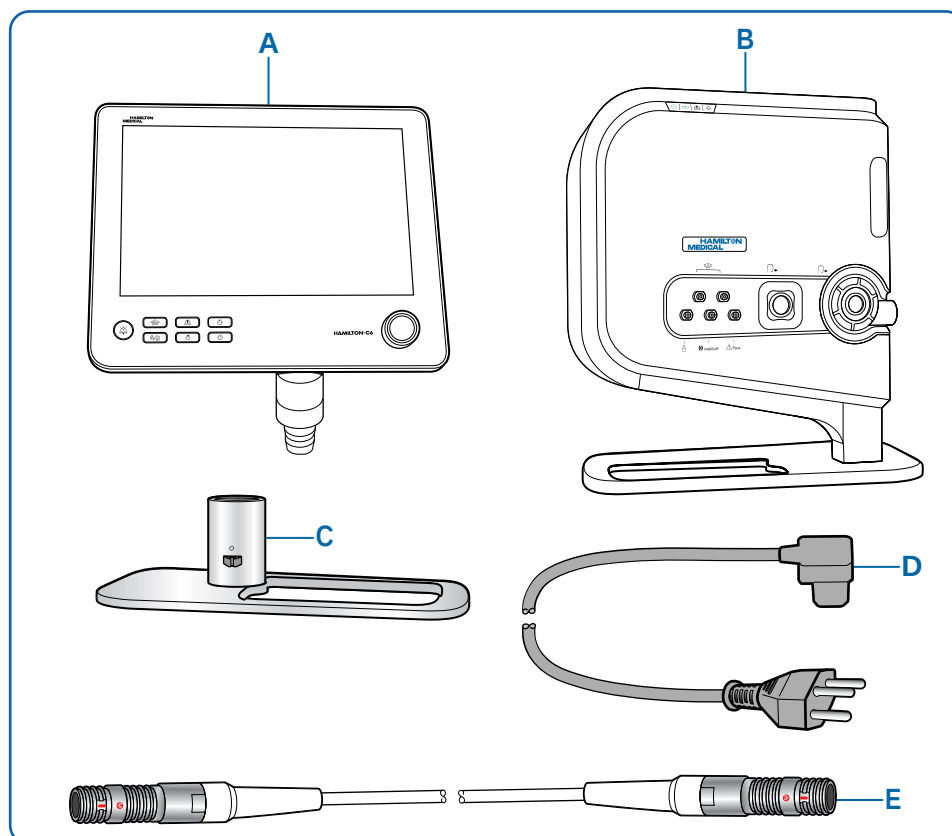
⚠ CAUTION

- The weight of the IP with shelf-mount is 10 kg (22 lb) and the weight of the VU with shelf-mount is 10.5 kg (23.15 lb).
- Assemble the interaction panel and the ventilator unit on a shelf that can support the combined weight (20.5 kg (45.2 lb)).

Tests and checks after installation

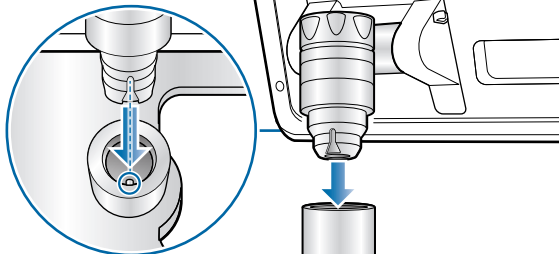
For details on the electrical safety tests and preoperational checks on the HAMILTON-C6 ventilator, see Chapter 1 – Ventilator Unit and Interaction Panel Overview.

Fill in the HAMILTON-C6 ventilator Testing and Acceptance Report after the initial installation. See Chapter 21.

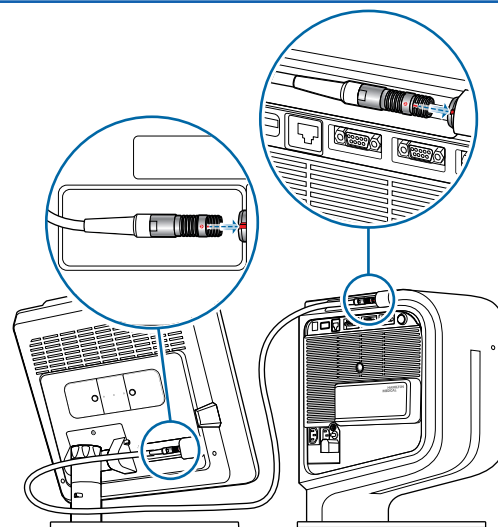


How to assemble the IP, connect the VU-IP cable and the power cable

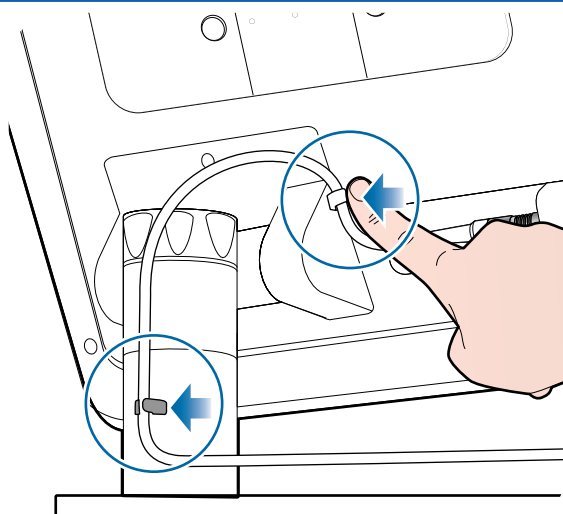
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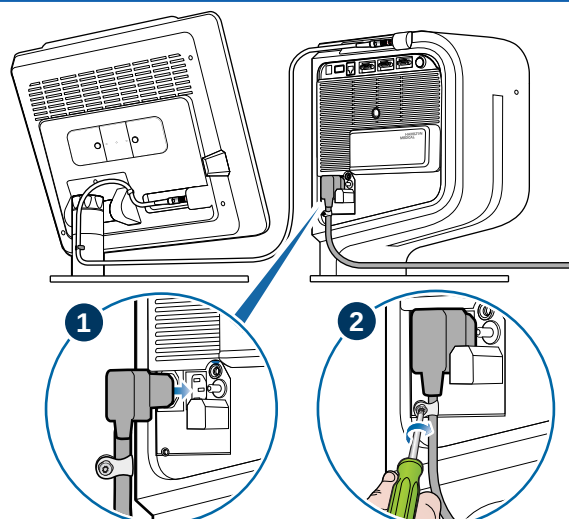
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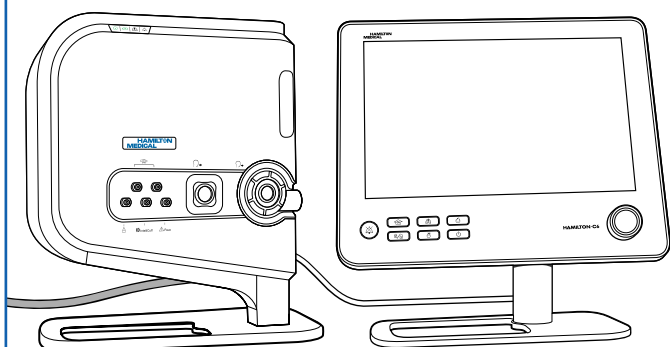
3



4



5



HAMILTON-C6 Installation Guide

Combined Shelf Mount Solution Assembly

English | 627075/04

REF 160060

Required tools

- Slotted screwdriver (size: # 3 or # 4)
- Spanner/wrench: BS 13 mm or 1/2" AF
- Allen key (size: 5 mm and 6 mm)

Components

- A** 1 x Interaction panel (IP) / monitor*
- B** 1 x Ventilator Unit (VU)*
- C** 1 x Hex socket cap screw, M8 x 55 mm
- D** 1 x Dock washer, 32 (OD) x 9 (ID) x 7 (H) mm
- E** 1 x IP mounting post
- F** 1 x VU column
- G** 4 x Countersunk hex socket screws for mounting VU, M8 x 20 mm
- H** 1 x Tubing support arm with quick-lock socket set (PN 160153)**
 - Contains:
 - H1** 1 x Tubing support arm with quick-lock socket
 - H2** 1 x Quick-lock socket
 - H3** 1 x M8 washer
 - H4** 1 x Hex bolt with reverse thread (fully threaded), M8 x 12 mm
- I** 1 x M14 washer
- J** 1 x Base plate
- K** 1 x Hex socket cap screws, M6 x 50 mm***
- L** 2 x Hex socket cap screws, M6 x 14 mm***
- M** 2 x Slot-nuts***

* Not included. Must be ordered separately with PN 160021.

** Not included. Must be ordered separately.

*** Screws and slot-nuts for mounting the HAMILTON-C6 ventilator unit on the VU column.

Note: The ventilator power cable is country-specific. Order the power cable specific to the mains power outlet of your country.

A VU-IP cable (PN 952300 (0.65 m), or PN 160785 (3 m), or PN 160786 (10 m)) is required for the installation. The VU-IP cable must be ordered separately.

Safety information

⚠ WARNING

The weight of the package for the multishelf mount is 33 kg (73 lb). Two persons are necessary to lift the IP and the VU package or use an applicable lifting equipment.

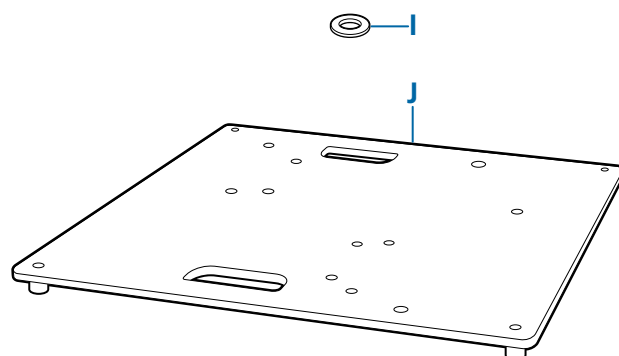
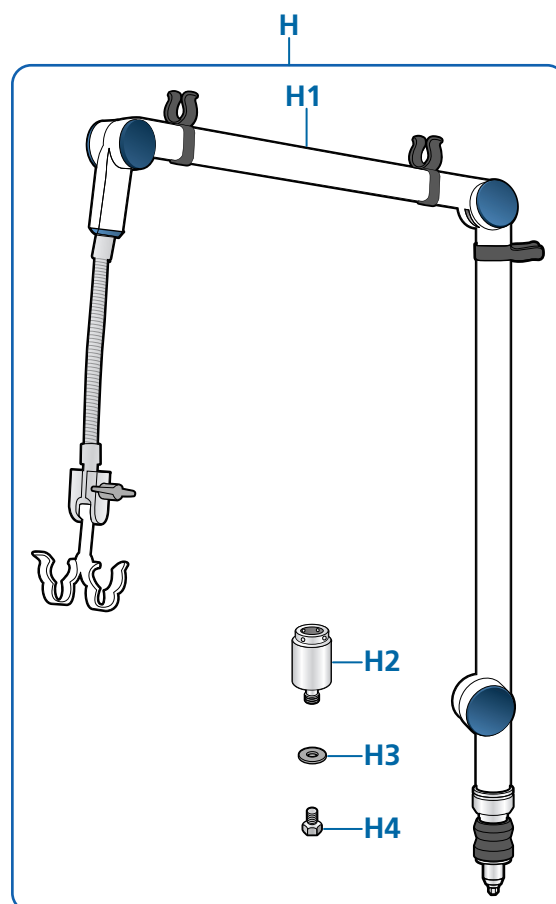
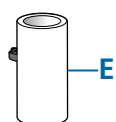
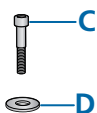
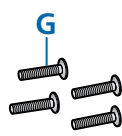
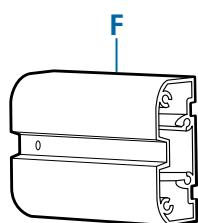
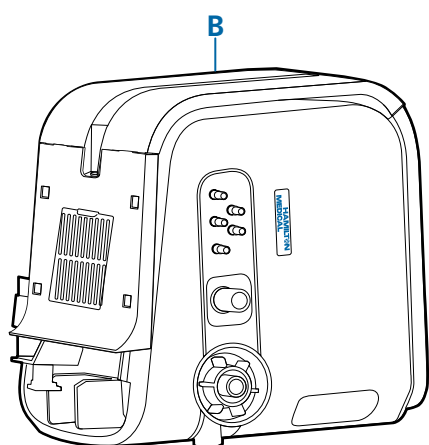
NOTICE

The base plate (Item E) has two different mounting positions to mount the ventilator unit and the tubing support arm with quick-lock socket. This provides flexibility to orientate the position of the combined shelf mount assembly.

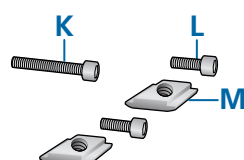
Tests and checks after installation

For details on the electrical safety tests and preoperational checks on the HAMILTON-C6 ventilator, see Chapter 1 – *Ventilator Unit and Interaction Panel Overview*.

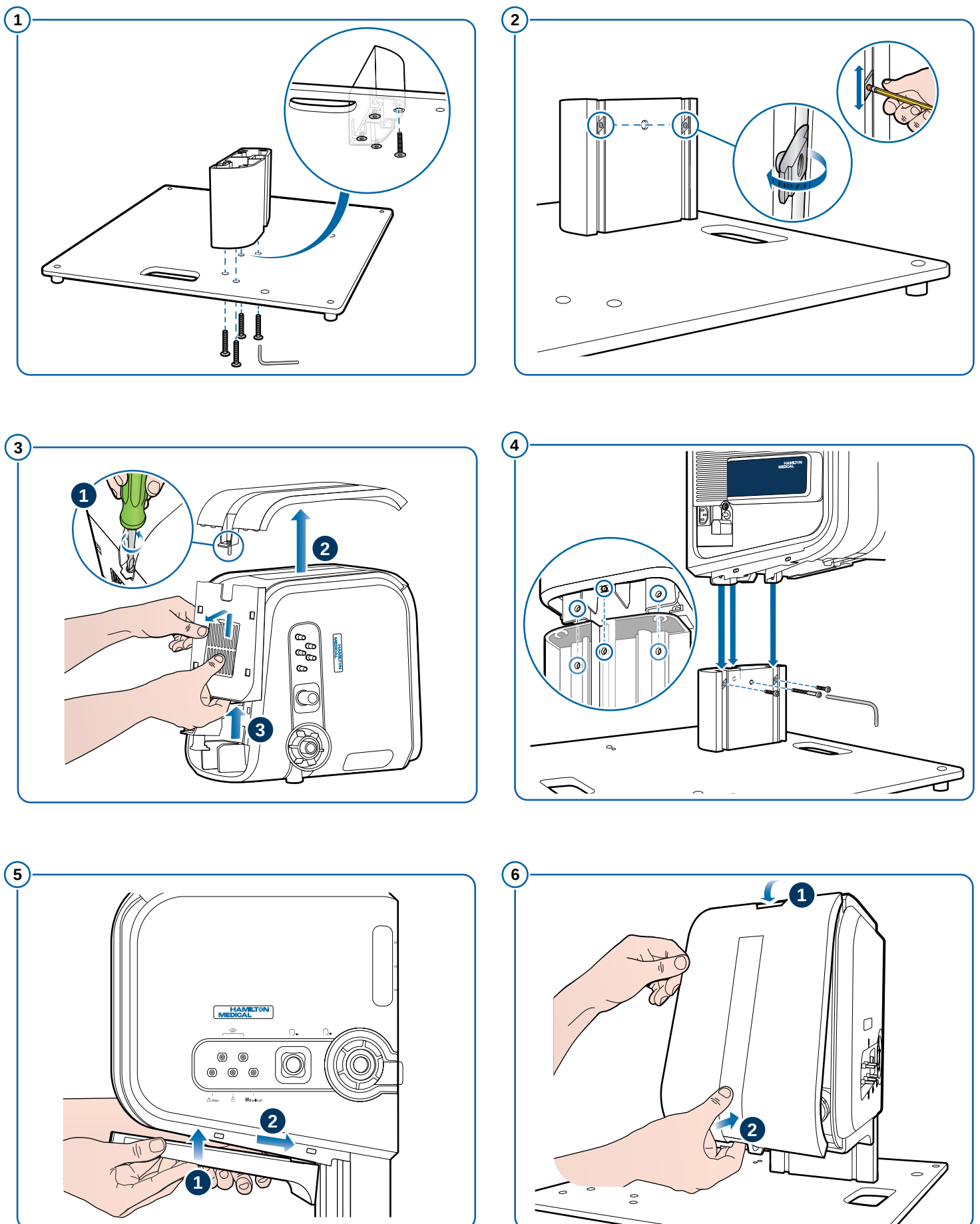
Fill in the HAMILTON-C6 ventilator *Testing and Acceptance Report* after the initial installation. See Chapter 21.

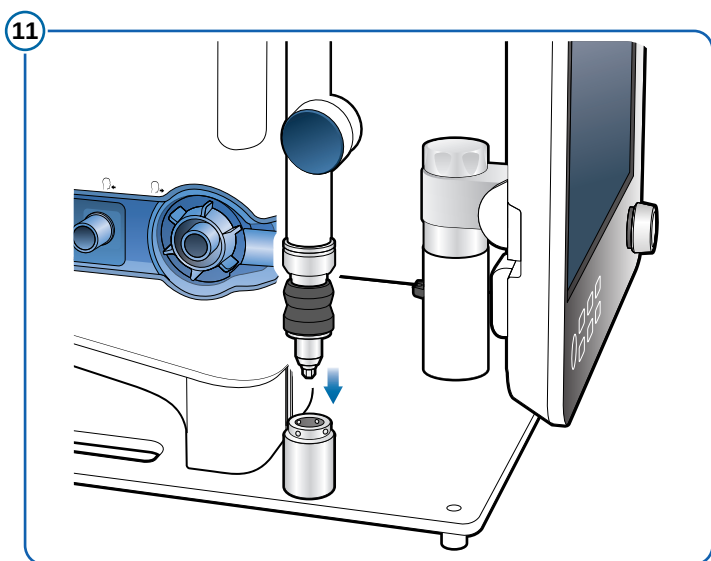
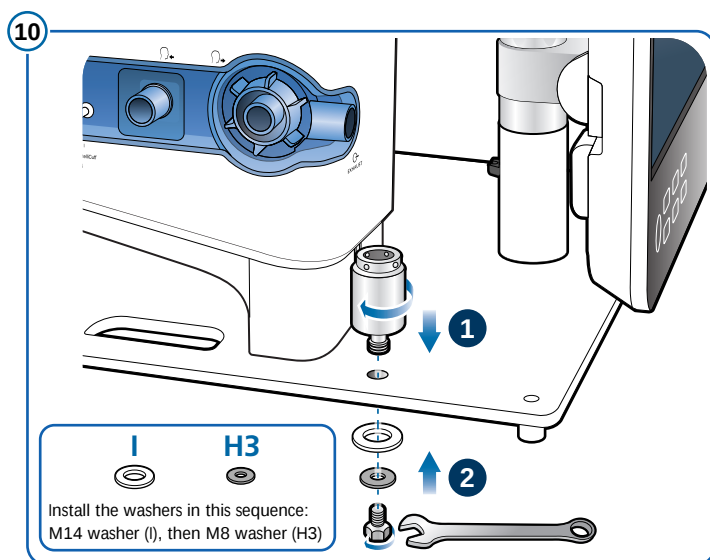
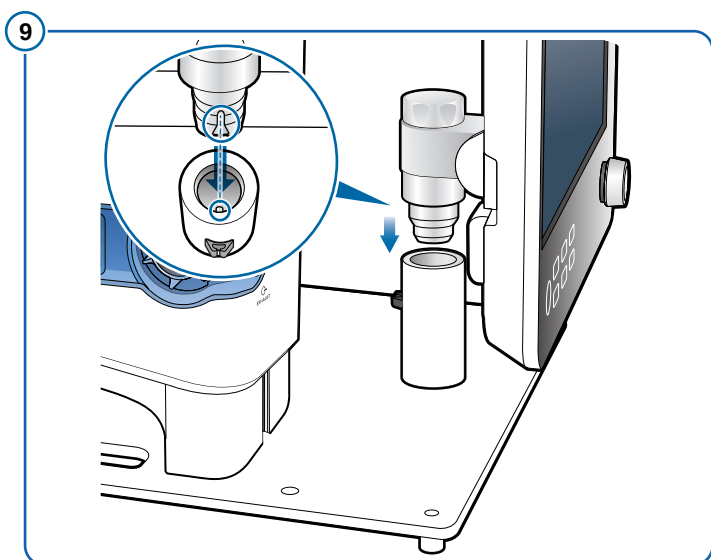
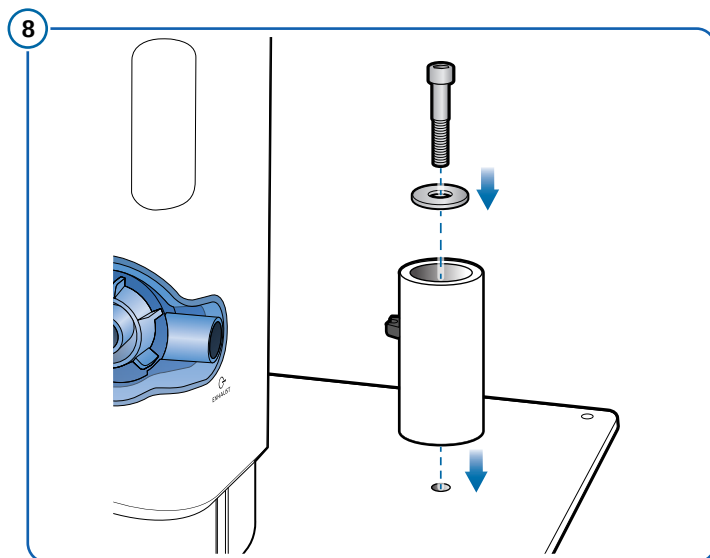
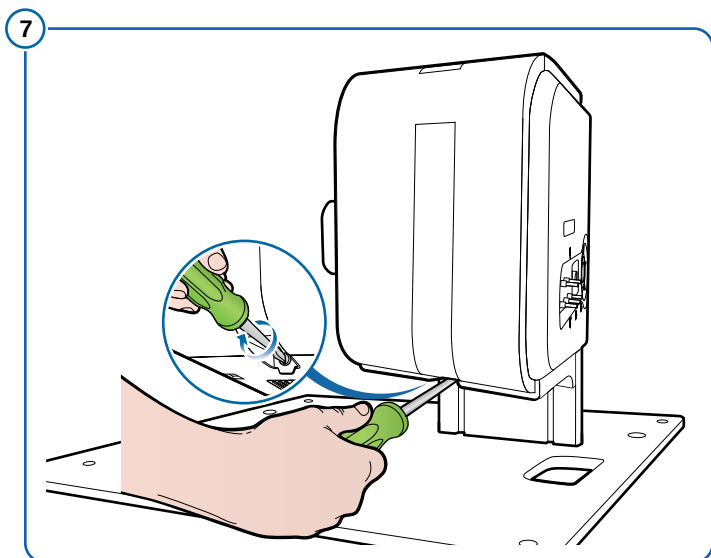


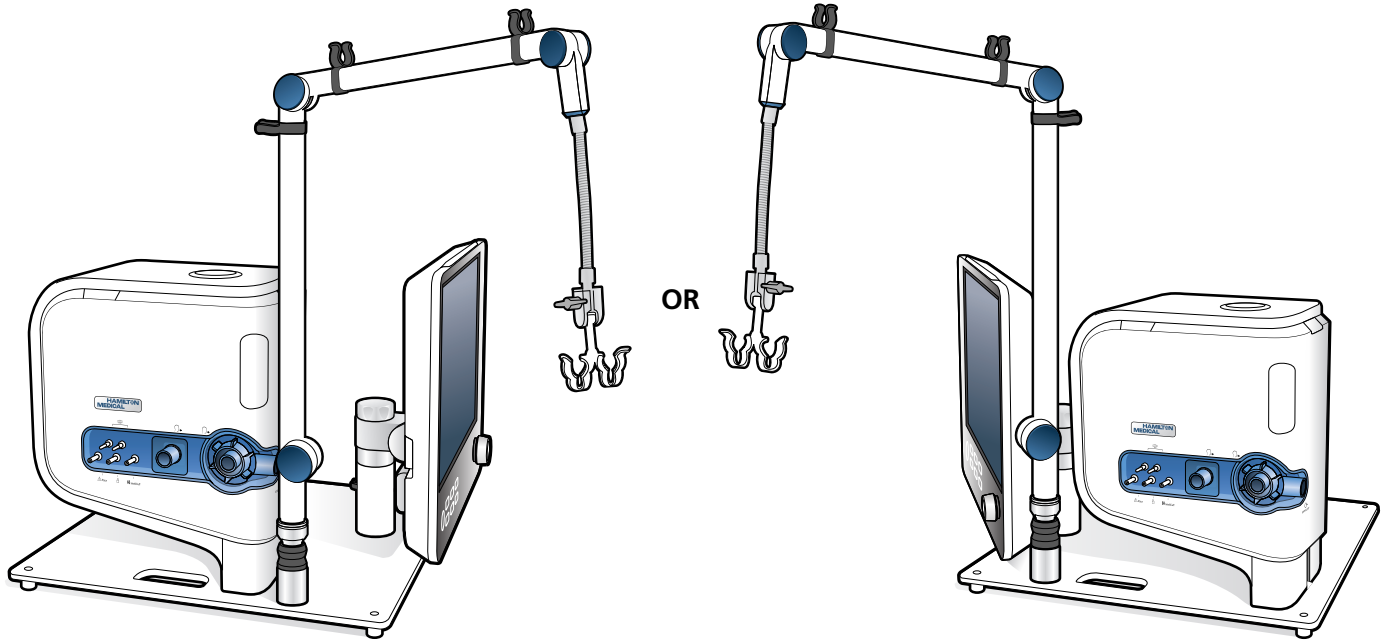
Ventilator unit mounting kit:



How to assemble the VU, the IP, and the tubing support arm with quick-lock socket on the base plate







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HAMILTON-C6 Installation Guide

Interaction Panel Mounting Options

English | 627075/04

REF 160989, 160782, 160890, 10068879

Required tools

Torx T15 screwdriver for VESA mount assembly

Components

A Interaction panel mounting clamp options:

A1 1 x Handle mount clamp (PN 160782)*

A2 1 x Pole mount clamp (PN 160989)**

A3 1 x Rail mount clamp (PN 160890)**

B 1 x VESA adapter plate (PN 10071828)

* A HAMILTON-C6 Trolley Solution (PN 160029) is required for the installation. Not included.

** A HAMILTON-C6 ventilator (PN 160021) is required for the installation. Not included.

Note: The interaction panel provides the interface for the VESA mount wall bracket assembly. VESA mount wall bracket is not included.

A 3-meter (PN 160785) or a 10-meter (PN 160786) VU-IP cable is required for the pole mount, the rail mount, and the VESA mount. The VU-IP cable is not included.

Clamp A1 must be ordered separately.

Clamp A2 is included in the Pole Mount solution (PN 160031).

Clamp A3 is included in the Rail Mount solution (PN 160032).

Safety information

⚠ WARNING

Turn off the VU and disconnect the power cable from the mains power supply before you start the installation. This will prevent possible electric shock or damage to the IP or the VU.

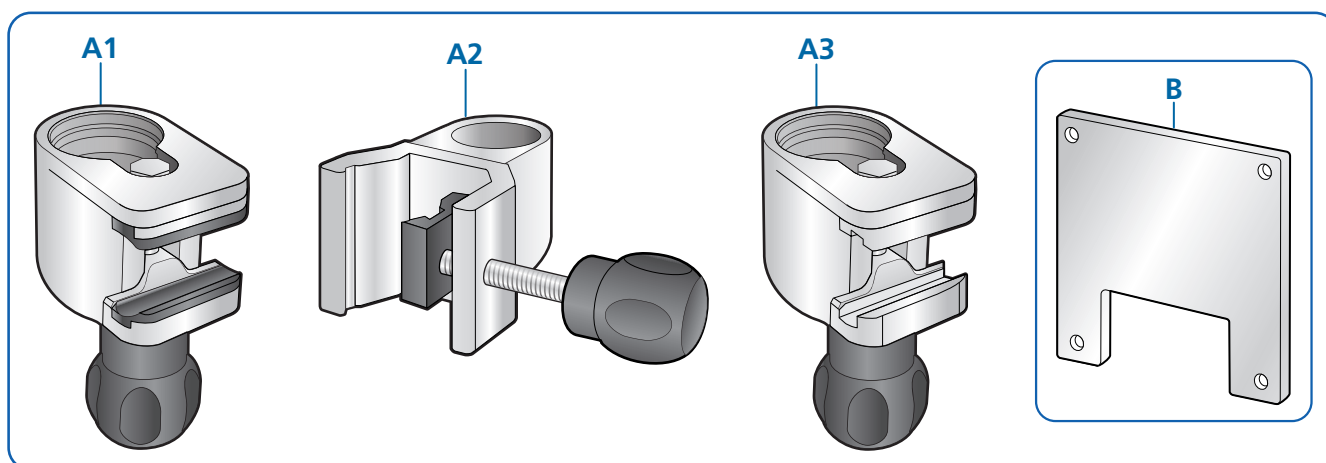
⚠ CAUTION

Disconnect the VU-IP cable from the rear of the IP and the rear of the VU before you start the installation if connected.

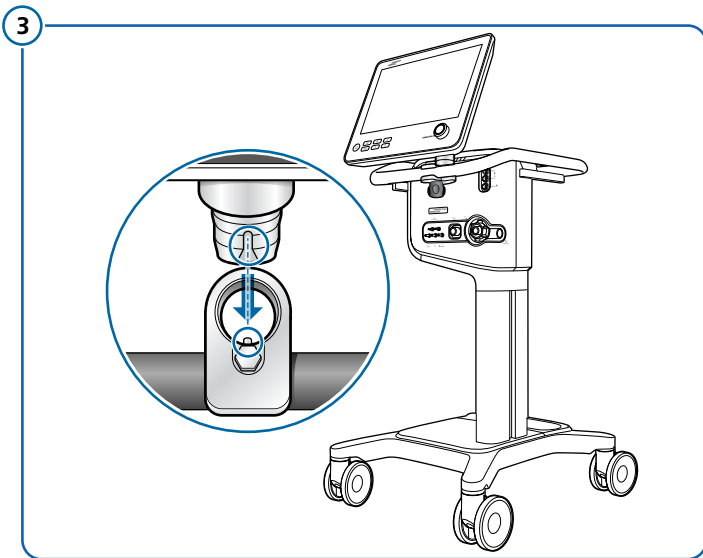
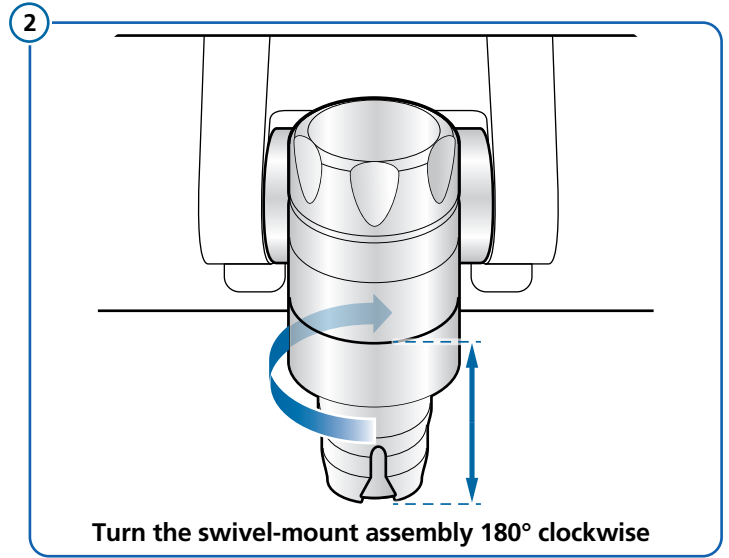
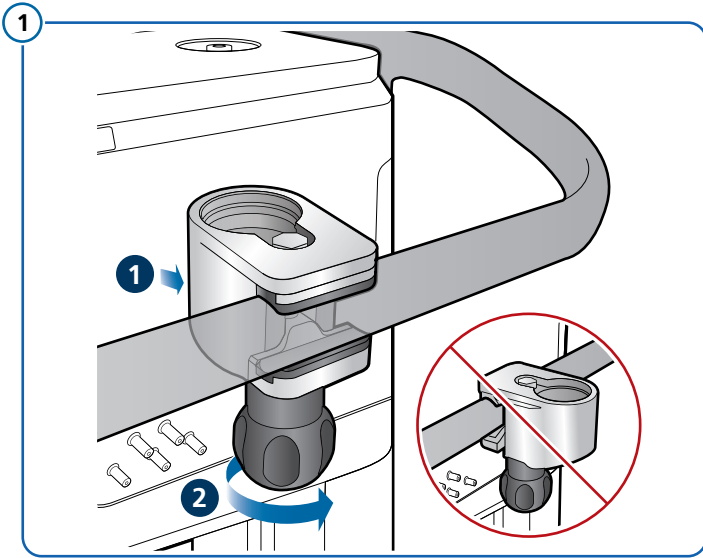
Tests and checks after installation

For details on the electrical safety tests and preoperational checks on the HAMILTON-C6 ventilator, see Chapter 1 – Ventilator Unit and Interaction Panel Overview.

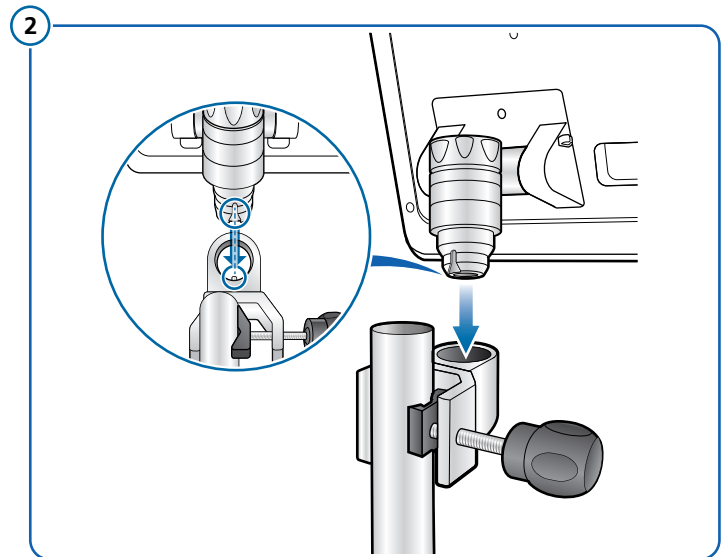
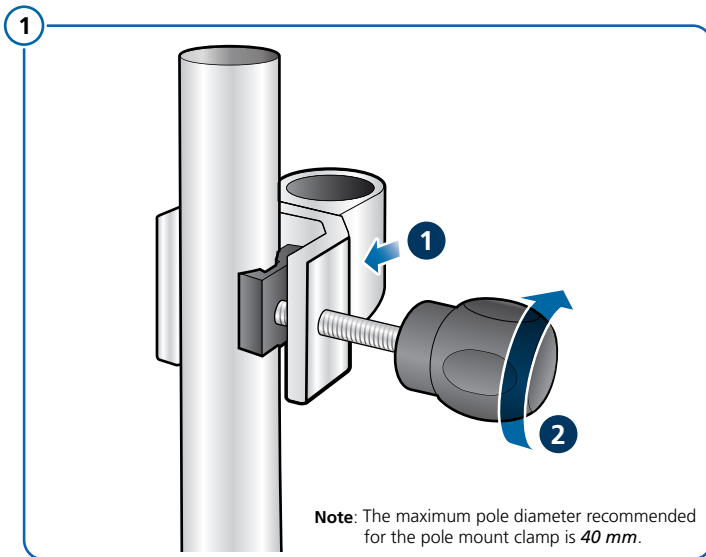
Fill in the HAMILTON-C6 ventilator *Testing and Acceptance Report* after the initial installation. See Chapter 21.



How to mount the IP on the VU handle



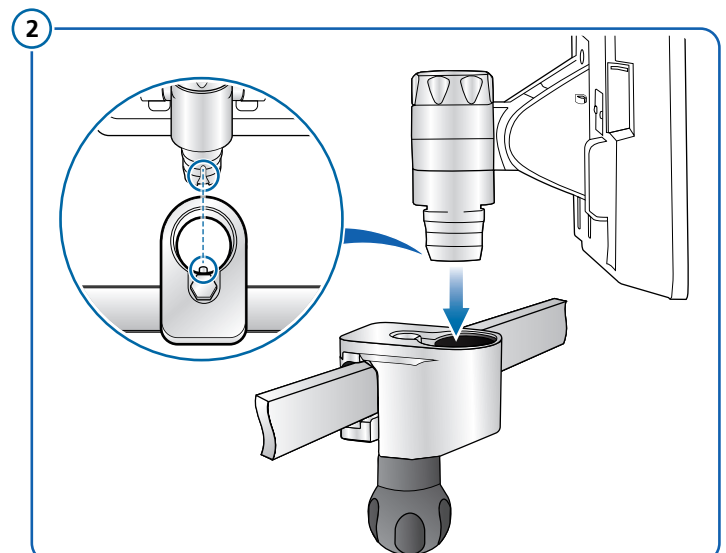
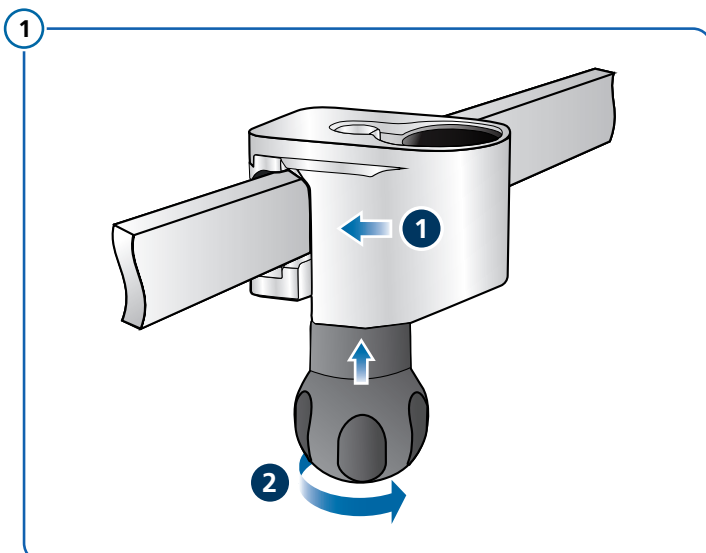
How to mount the IP to a pole



How to mount the IP to a standard rail

⚠ CAUTION

Do not mount the Rail Mount Clamp (Item A3, PN 160890) on the standard rail on the side of the HAMILTON-C6 VU handle. The Rail Mount Clamp is only intended for external standard rail mount.



How to mount the VESA mount bracket on the rear of the IP

⚠ CAUTION

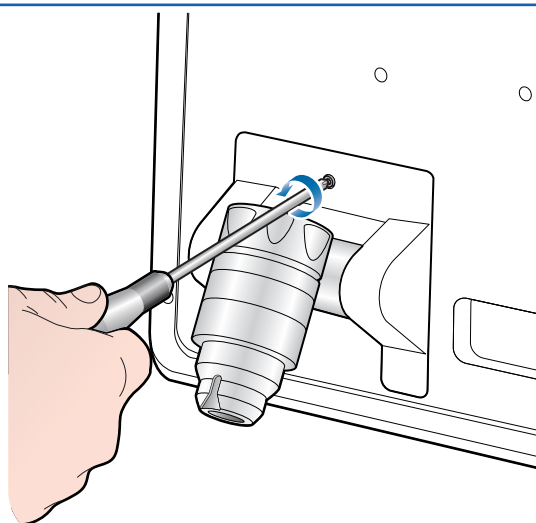
The maximum length of the recommended screws for mounting the VESA mount bracket on the rear of the IP must not be more than 20 mm.

NOTICE

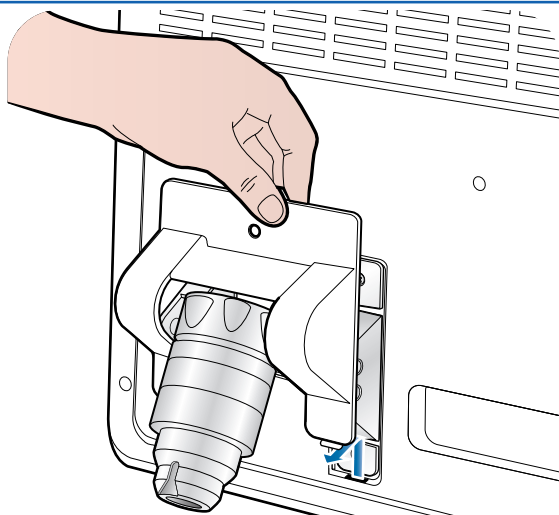
VESA mount specification:

- VESA mount bracket thickness: maximum of 2 mm
- VESA mount bracket screw holes dimensions: 100 mm (L) x 100 mm (H)
- Recommended screws: 4 x Hex socket head cap screws, thus M4 x 15 mm + [thickness (x mm)] of the VESA mount bracket

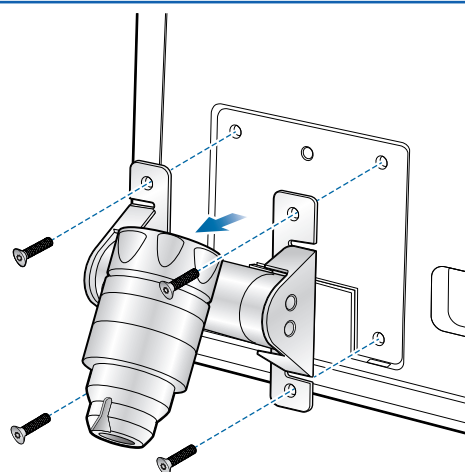
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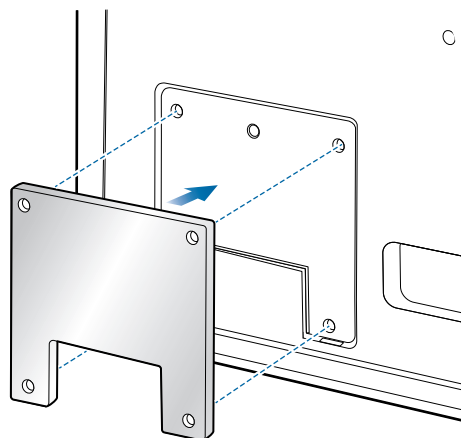


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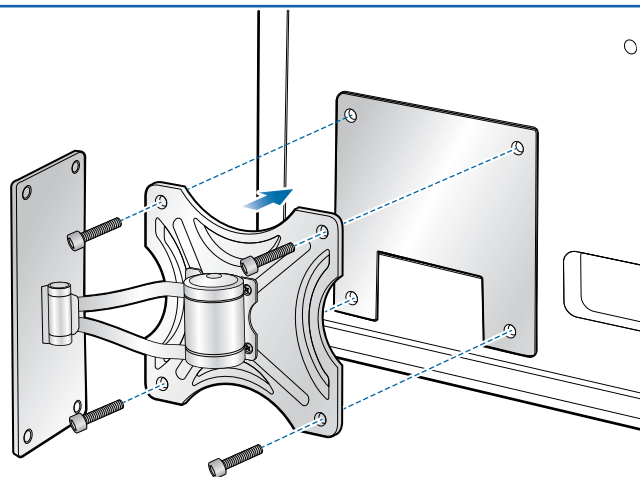
Remove the swivel-mount assembly

4



Install the VESA adapter plate

5



Install the VESA mount bracket

HAMILTON-C6 Installation Guide

Cablewrap Assembly

English | 627075/04

REF 160785, 160786

Required tools

Slotted screwdriver (size: # 2)

Torx T15 screwdriver

Components

- A** 1 x Ventilator Unit-Interaction Panel (VU-IP) cable
Available lengths: 3 m (PN 160785) or 10 m (PN 160786)
- B** 1 x Cablewrap (PN 160936)
- C** 2 x Blanking covers
- D** 2 x Torx screws, M4 x 6 mm

Note: A HAMILTON-C6 ventilator (PN 160021) is required for the installation. Not included.

Safety information

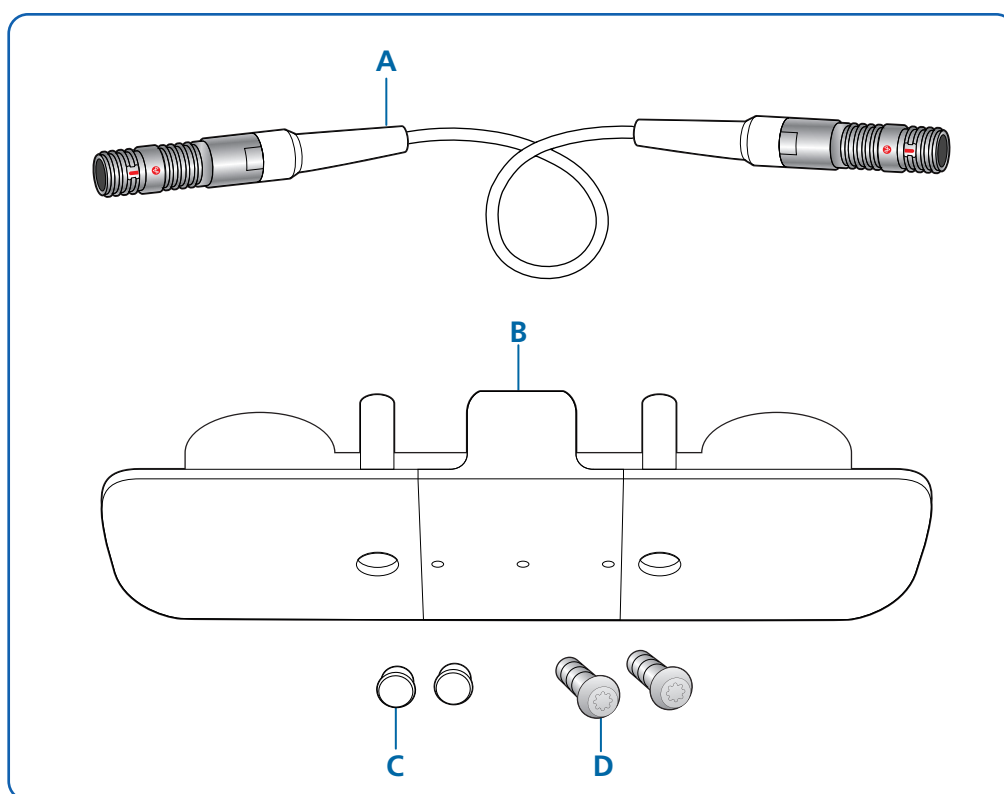
⚠ WARNING

Turn off the VU and disconnect the power cable from the mains power supply before you start the installation. This will prevent possible electric shock or damage to the IP or the VU.

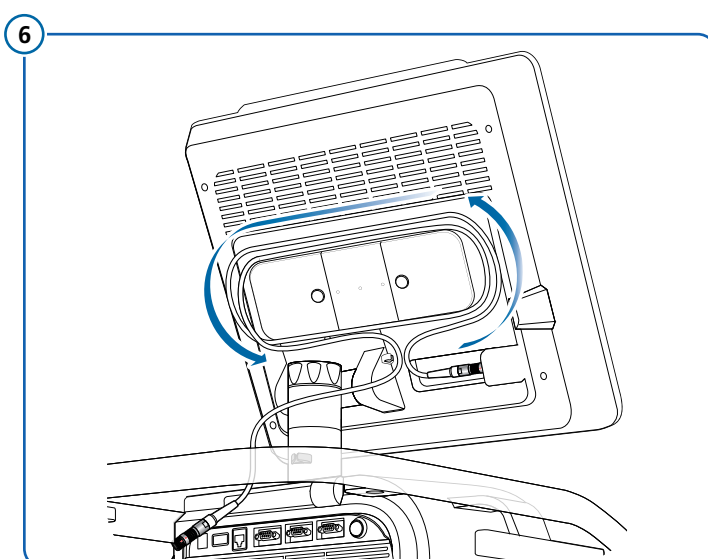
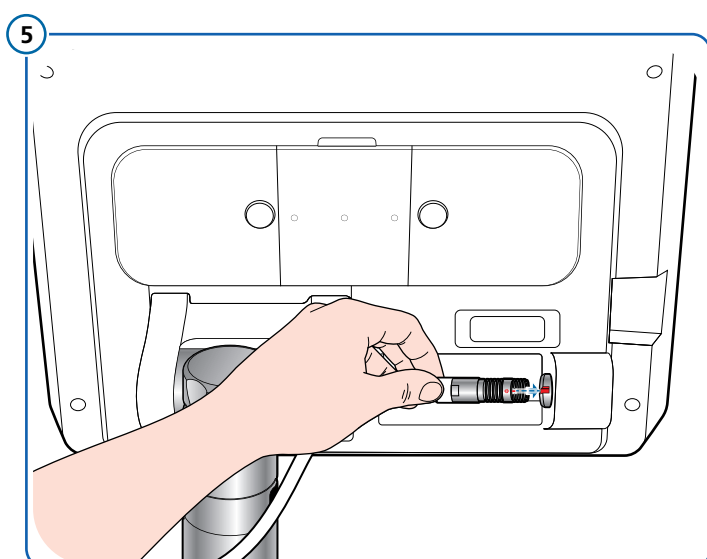
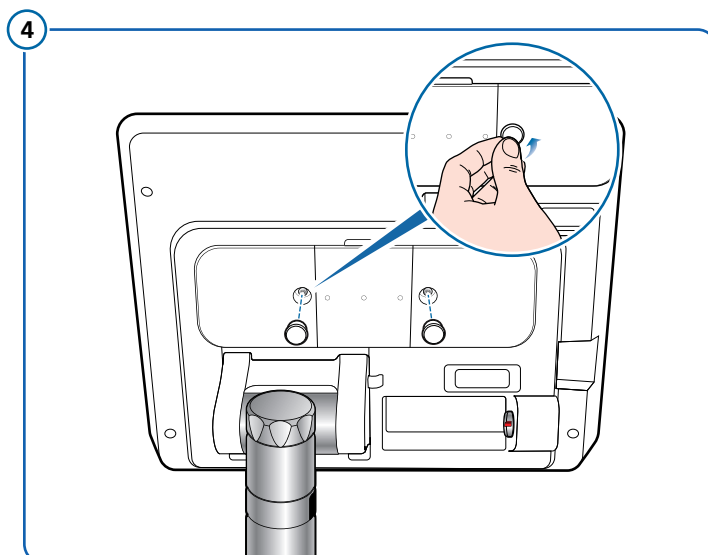
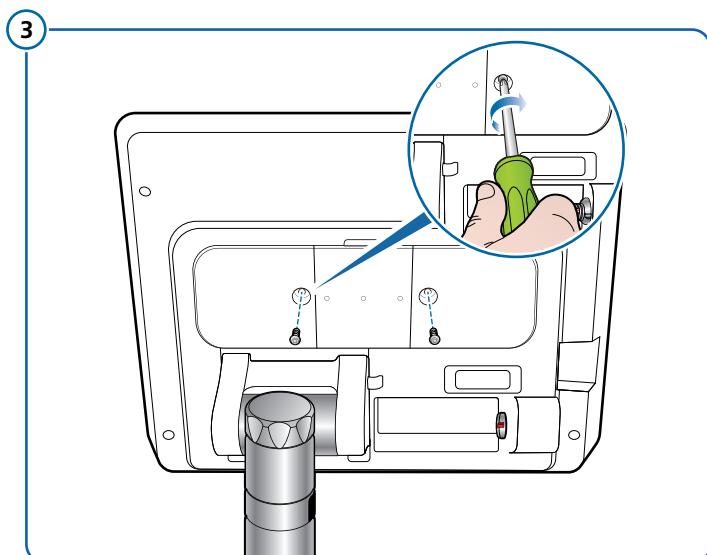
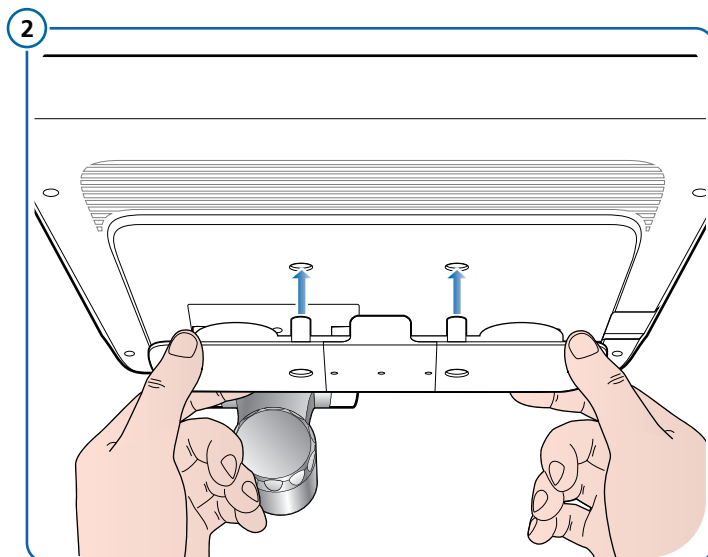
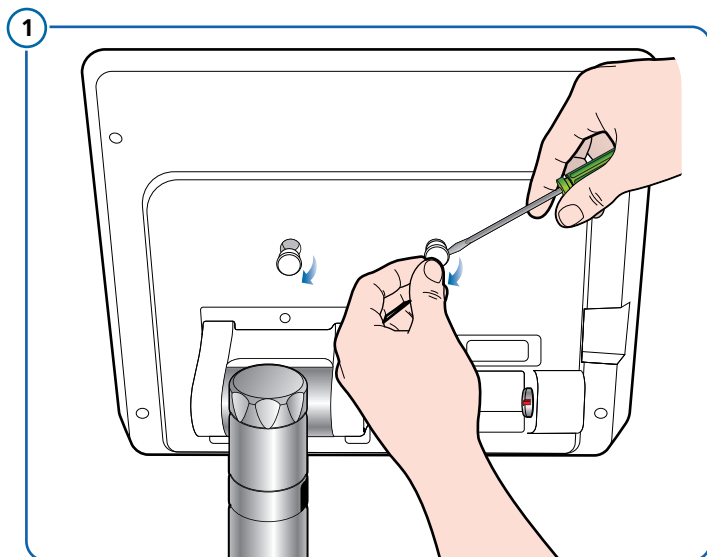
Tests and checks after installation

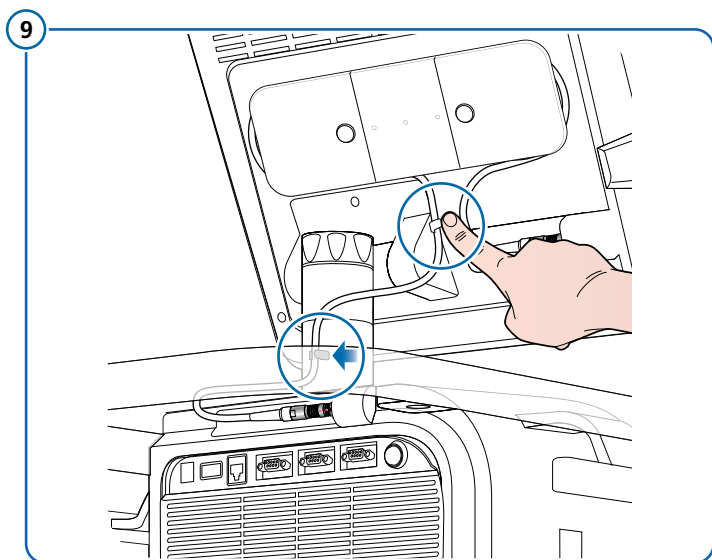
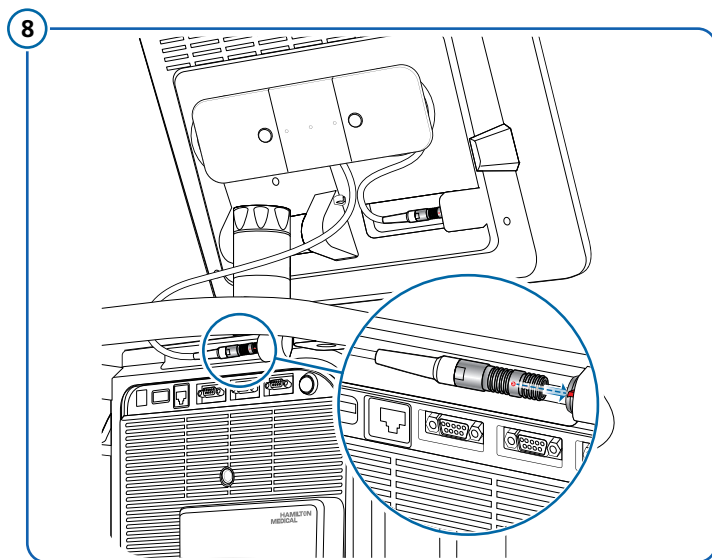
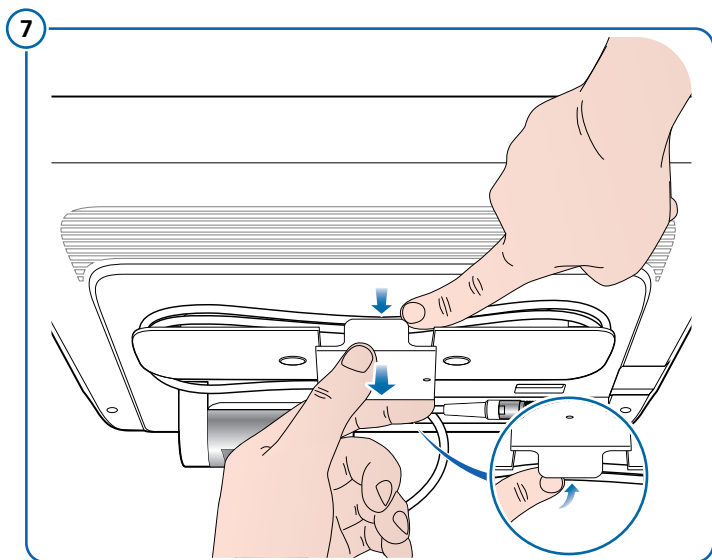
For details on the electrical safety tests and preoperational checks on the HAMILTON-C6 ventilator, see Chapter 1 – *Ventilator Unit and Interaction Panel Overview*.

Fill in the HAMILTON-C6 ventilator *Testing and Acceptance Report* after the initial installation. See Chapter 21.



How to assemble the cablewrap





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HAMILTON-C6 Installation Guide

Communication Board Assembly

English | 627075/04

REF 160184, 160185

Required tools

Slotted screwdriver (size: # 1)
Torx T10 screwdriver

Components

A Communication board:

A1 1 x CO2, SpO2, and Aerogen® (PN 160184)

or

A2 1 x CO2 and SpO2 (PN 160185)

B 2 x Torx screws, M3 x 8 mm

Note: A HAMILTON-C6 ventilator (PN 160021) is required for the installation. Not included.

Safety information

⚠ WARNING

Turn off the VU and disconnect the power cable from the mains power supply before you start the installation. This will prevent possible electric shock or damage to the VU or the communication board.

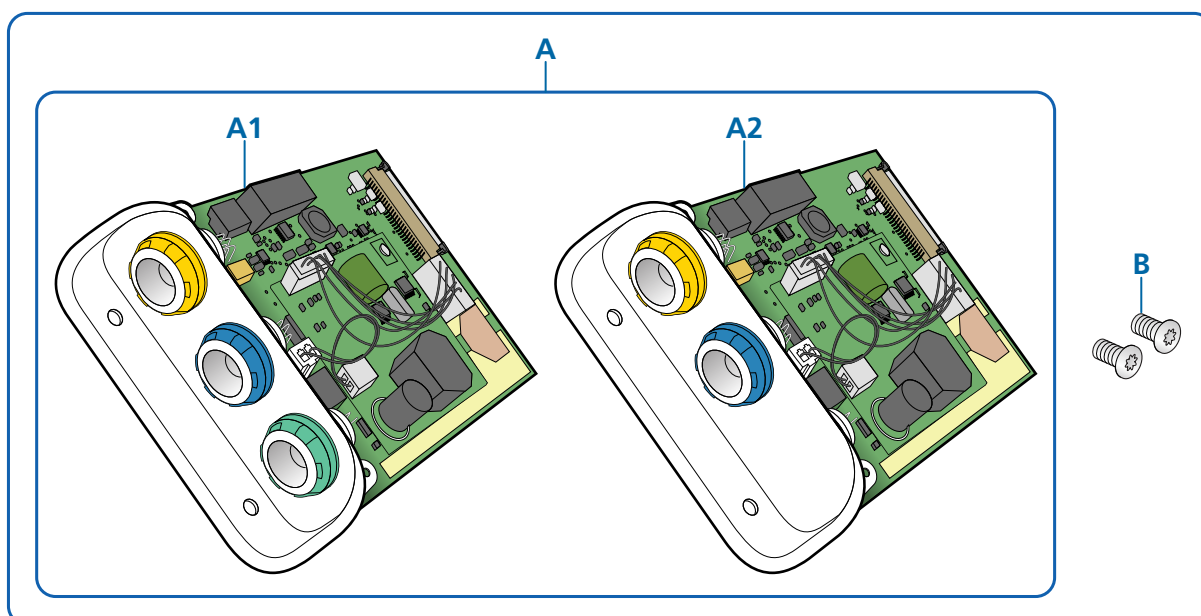
⚠ CAUTION

Use an applicable electrostatic discharge (ESD) device such as ESD wrist strap to equalize your body's charge with the ventilator unit's charge before you start the installation. This will help protect the electronic components of the ventilator unit and the communication board from ESD damage.

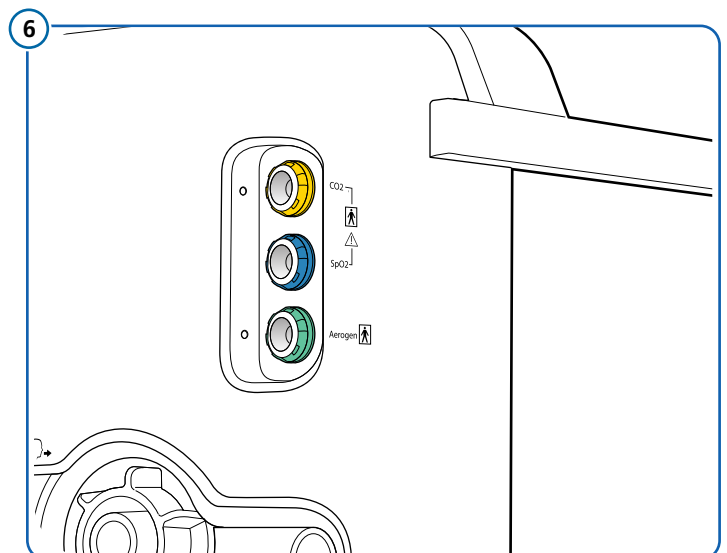
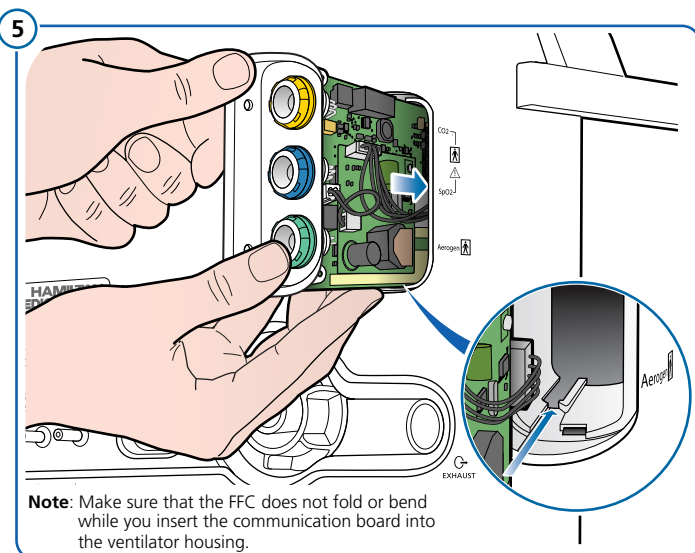
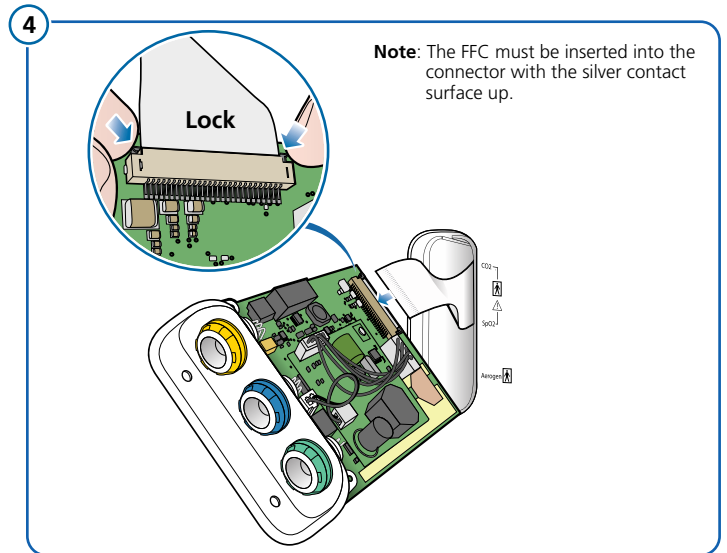
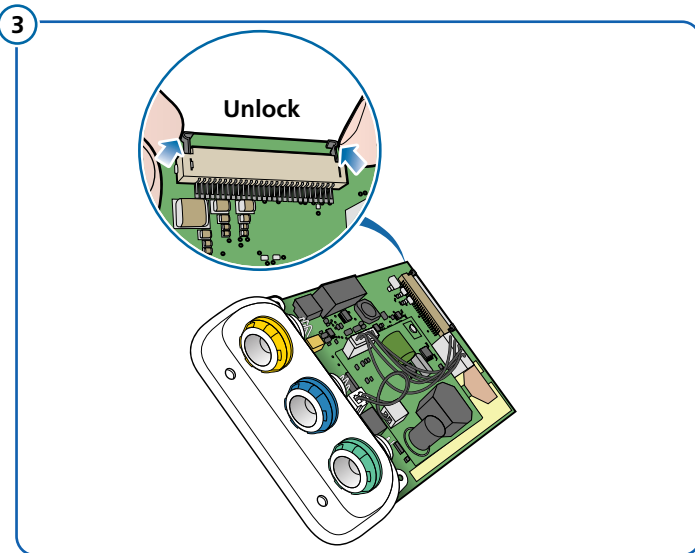
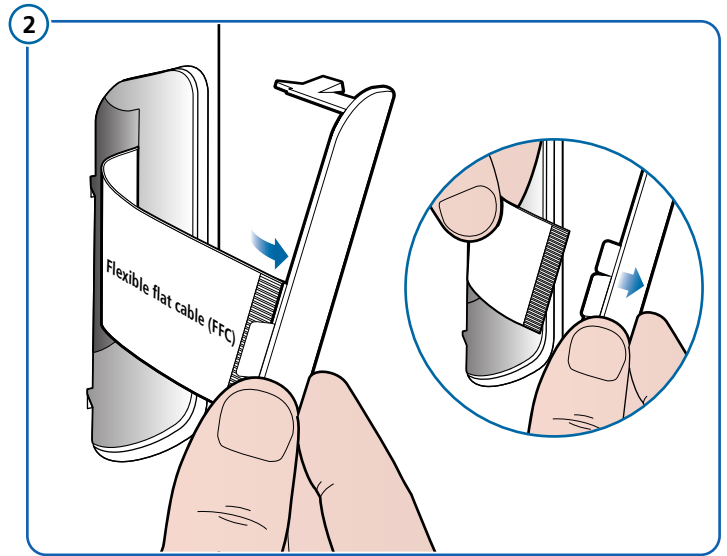
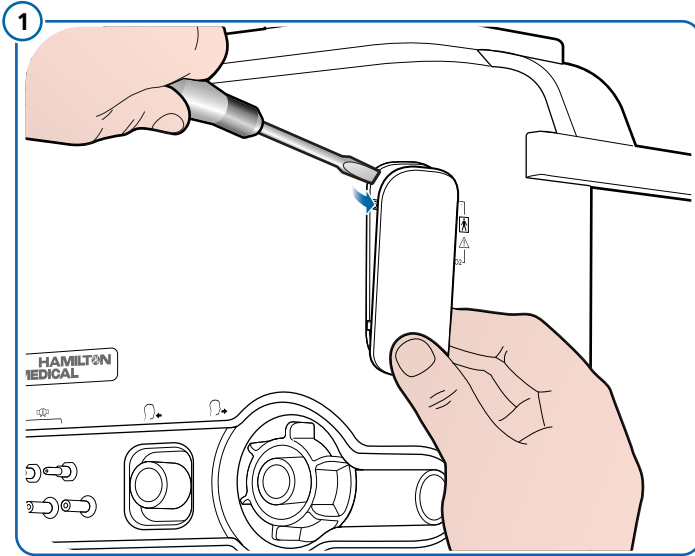
Tests and checks after installation

For details on the electrical safety tests and preoperational checks on the HAMILTON-C6 ventilator, see Chapter 1 – Ventilator Unit and Interaction Panel Overview.

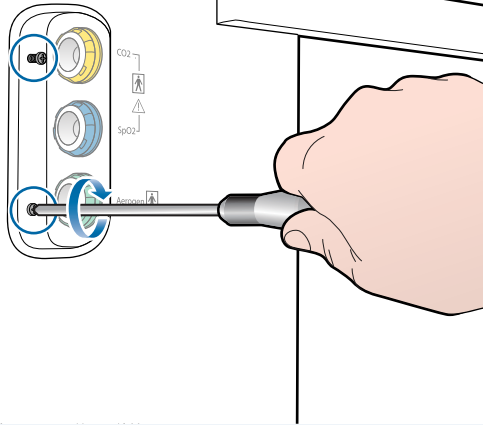
Fill in the HAMILTON-C6 ventilator *Testing and Acceptance Report* after the initial installation. See Chapter 21.



How to assemble the communication board



7



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REF 160784

Required tools

Slotted screwdriver (size: # 3 or # 4)

Components

- A** 1 x IntelliCuff pressure controller (PN 951001)
- B** 1 x Cuff tubing
- C** 1 x USB communication cable
- D** 1 x IntelliCuff retaining plate (PN 160834)

Note: A HAMILTON-C6 ventilator (PN 160021) is required for the installation. Not included.

Safety information

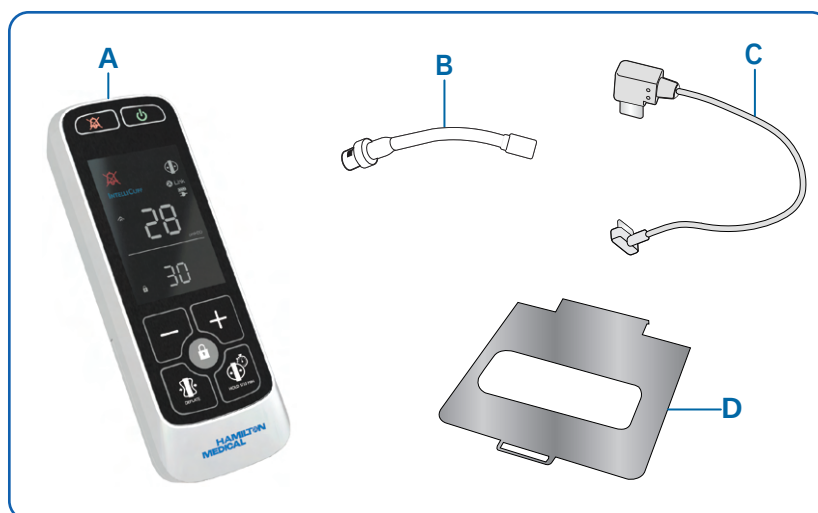
⚠ CAUTION

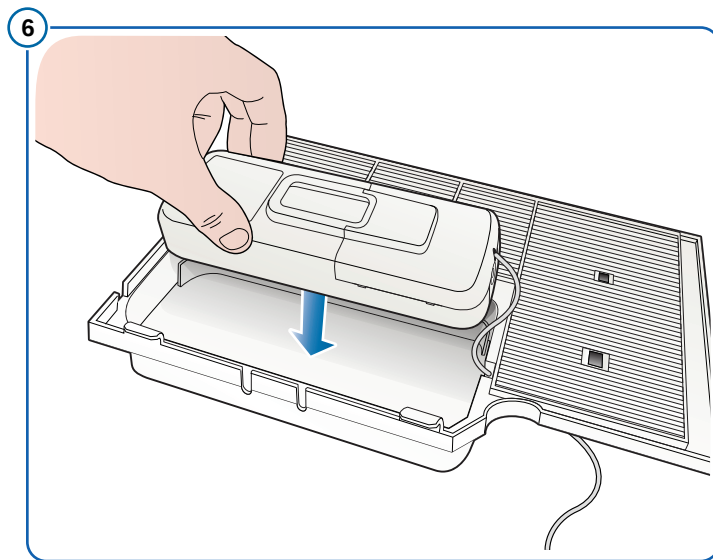
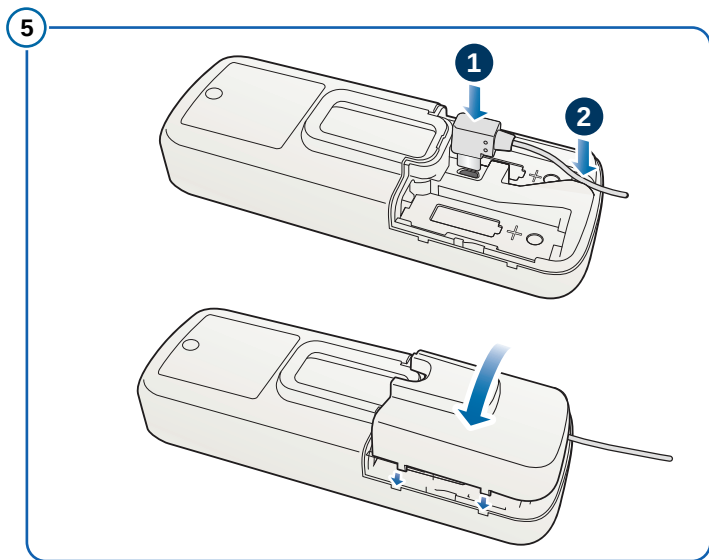
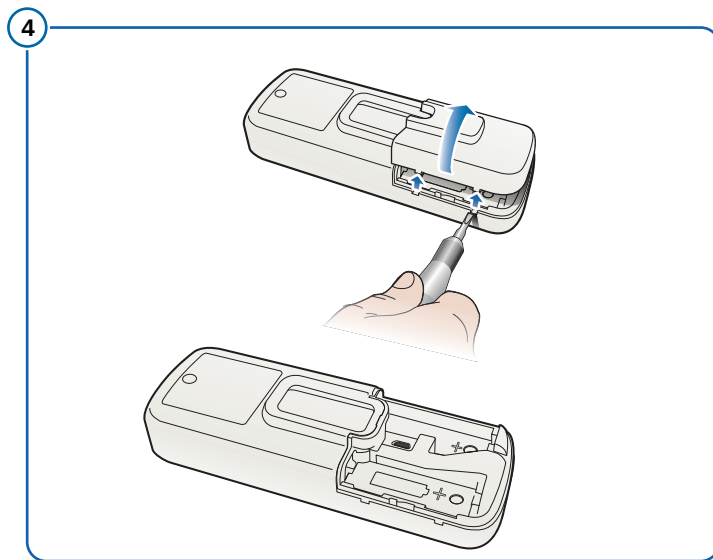
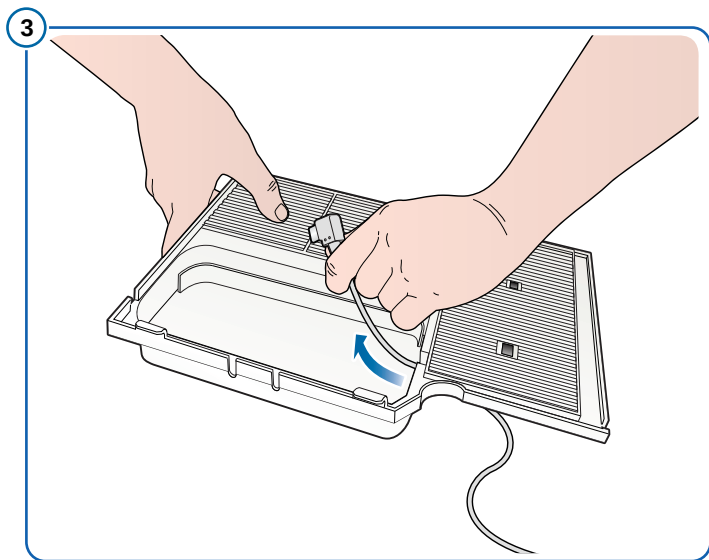
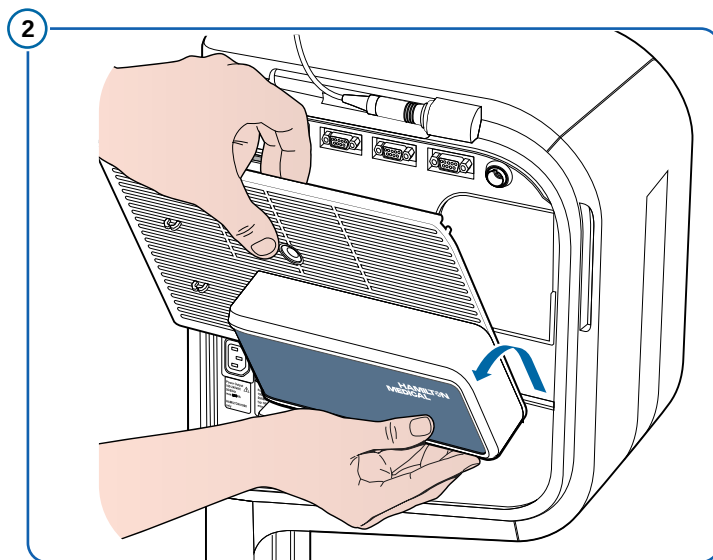
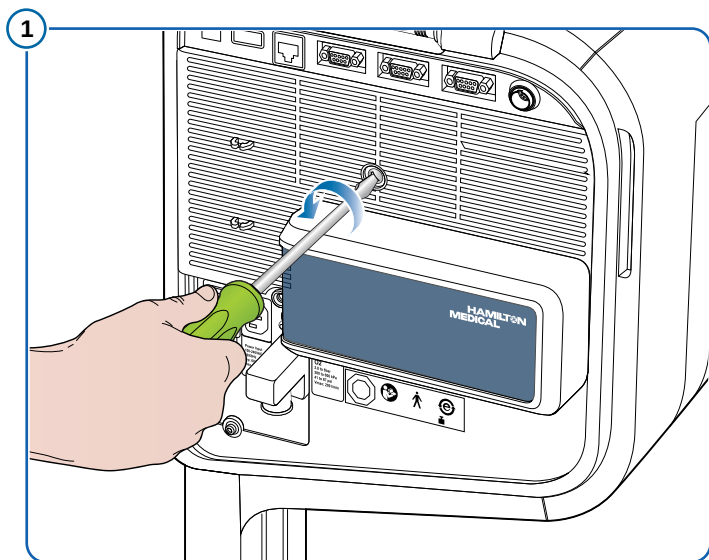
Do not put batteries in the IntelliCuff battery compartment as the USB communication cable provides electrical power to the IntelliCuff through the VU.

Tests and checks after installation

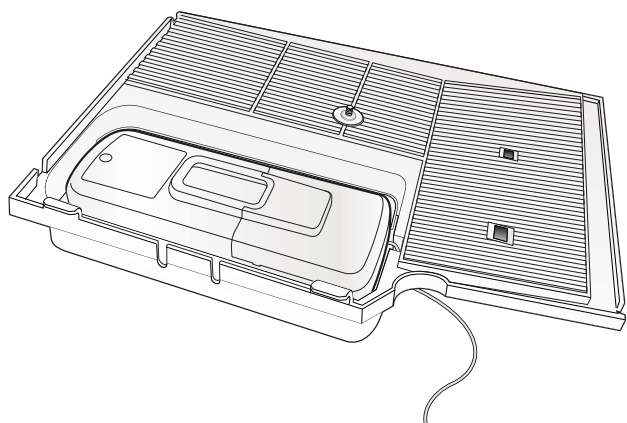
For details on the electrical safety tests and preoperational checks on the HAMILTON-C6 ventilator, see Chapter 1 – *Ventilator Unit and Interaction Panel Overview*.

Fill in the HAMILTON-C6 ventilator *Testing and Acceptance Report* after the initial installation. See Chapter 21.

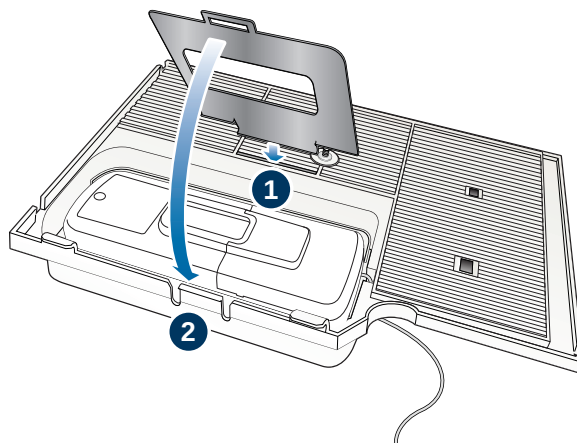




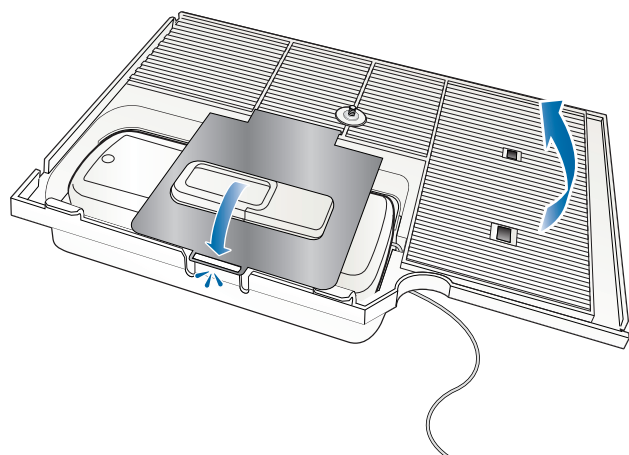
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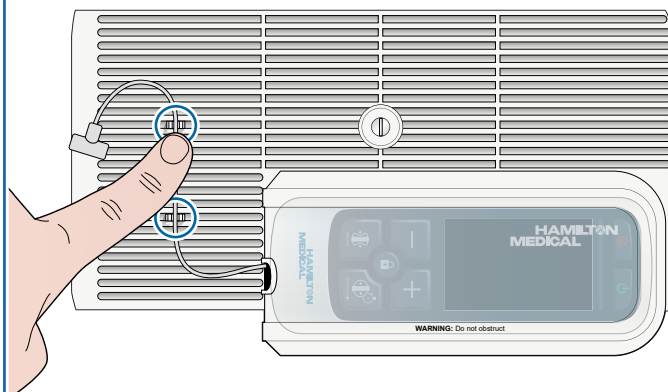
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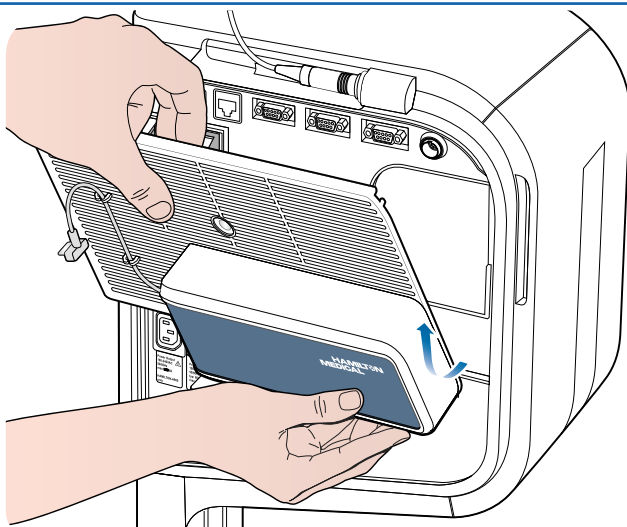
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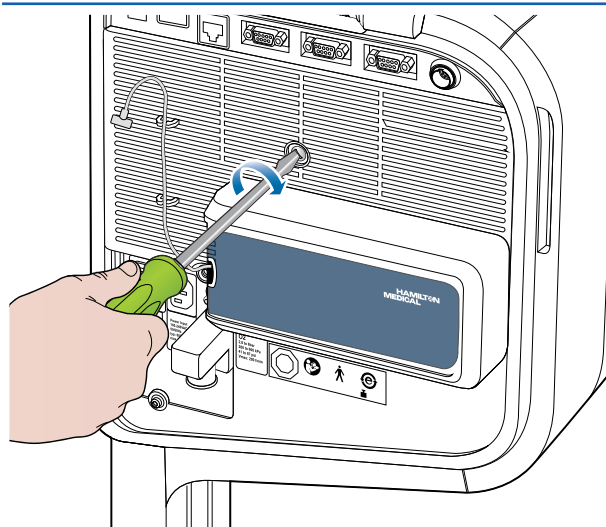
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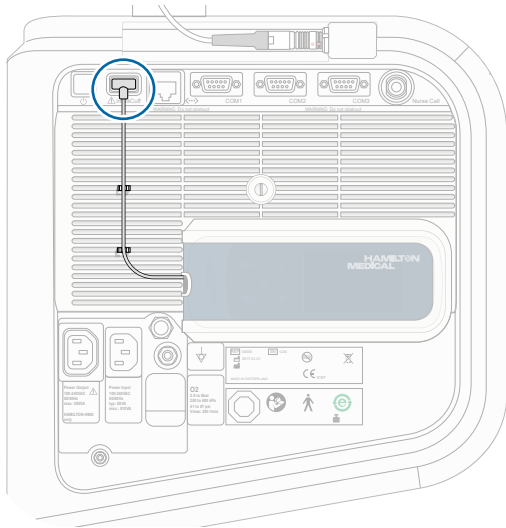
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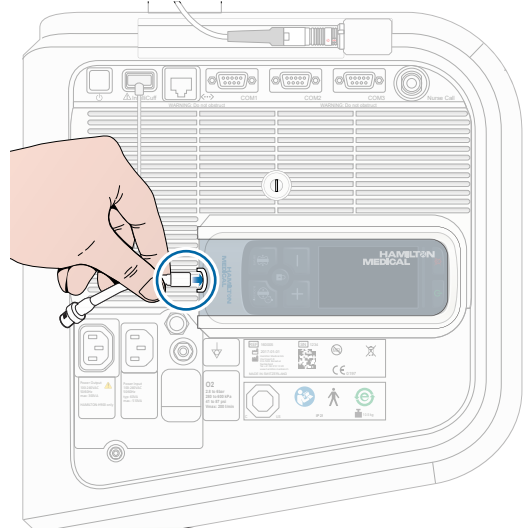
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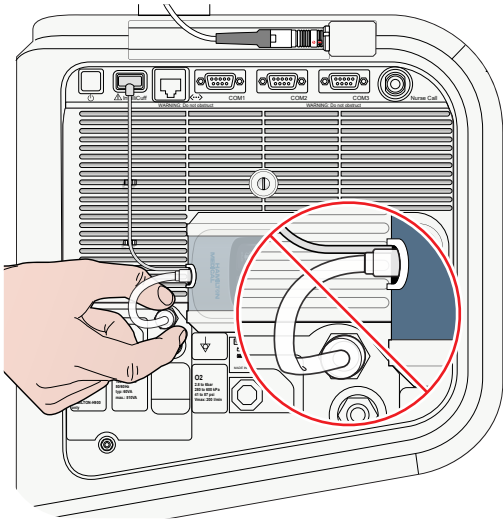
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14



15



HAMILTON-C6 Installation Guide

Paramagnetic O2 sensor Assembly

English | 627075/04

REF 160169

Required tools

- Slotted screwdriver (size: # 3 or # 4)
- Torx T6 screwdriver

Components

- A** 1 x Paramagnetic O2 sensor (PN 160169)
- B** 1 x O-ring
- C** 1 x Paramagnetic O2 sensor mounting adapter
- D** 4 x Countersunk head Torx screws, M2 x 5 mm (PN PN 420658)*
- E** 4 x Lens head Torx screws, M2 x 5 mm (PN 420393)**
- F** 4 x Delta PT® button head Torx screws, M2.2 x 8 mm (PN 420902)***

* Screws for mounting adapter to paramagnetic O2 sensor.

** Screws for mounting the paramagnetic O2 sensor to mounting plate with metal threaded screw holes.

*** Screws for mounting the paramagnetic O2 sensor to mounting plate with threaded screw holes in the plastic.

Note: A HAMILTONC-6 ventilator (PN 160021) is required for the installation. Not included.

Safety information

⚠ WARNING

Turn off the VU and disconnect the power cable from the mains power supply before you start the installation. This will prevent possible electric shock or damage to the VU or the O2 sensor.

⚠ CAUTION

Identify the thread type of the mounting plate, then use the specified screws for the applicable thread, to mount the paramagnetic O2 sensor to the mounting plate. If you use the incorrect screws to mount the paramagnetic O2 sensor, this can cause damage to the mounting plate.

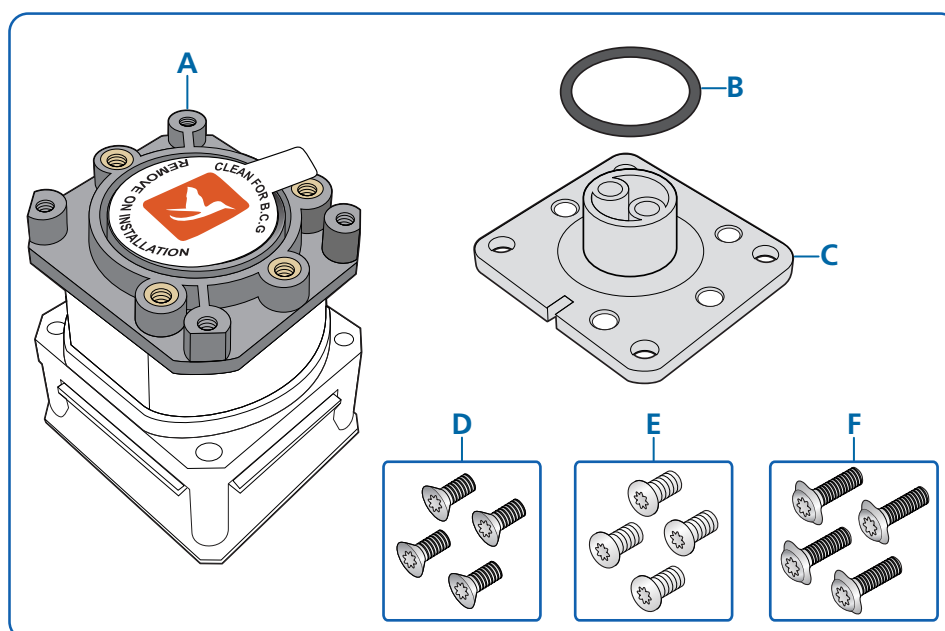
NOTICE

- The cable for the paramagnetic O2 sensor connector is preinstalled and stowed above the sensor compartment.
- Stow the connector cable for the galvanic O2 sensor above the sensor compartment after the removal of the galvanic O2 sensor.

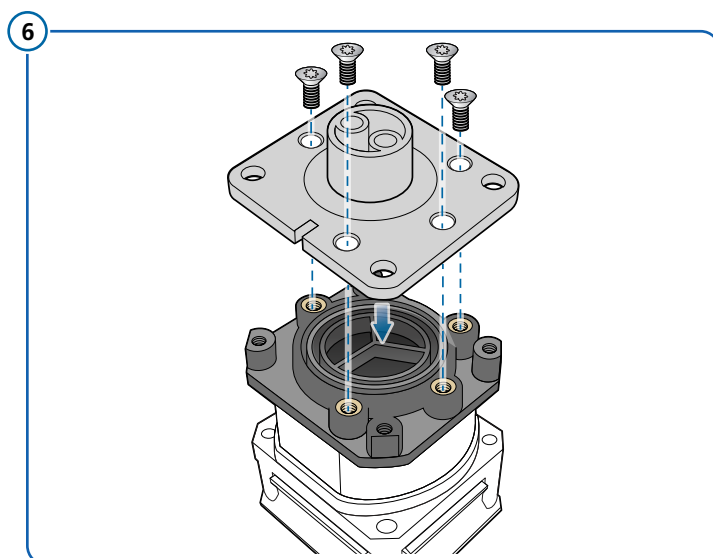
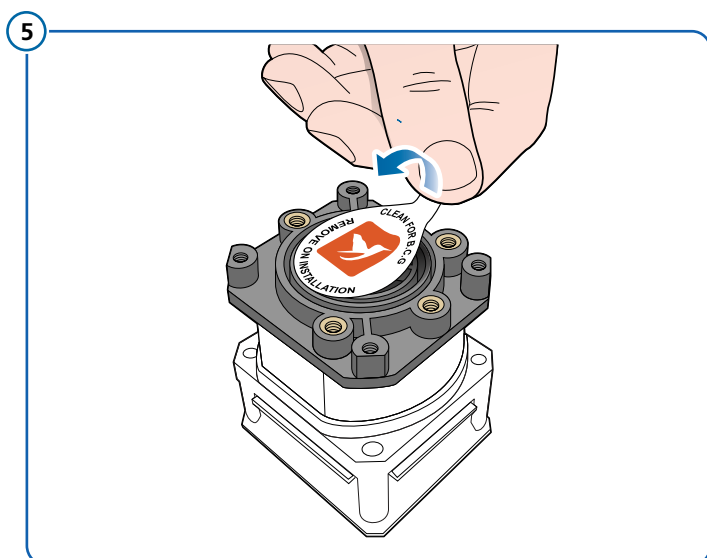
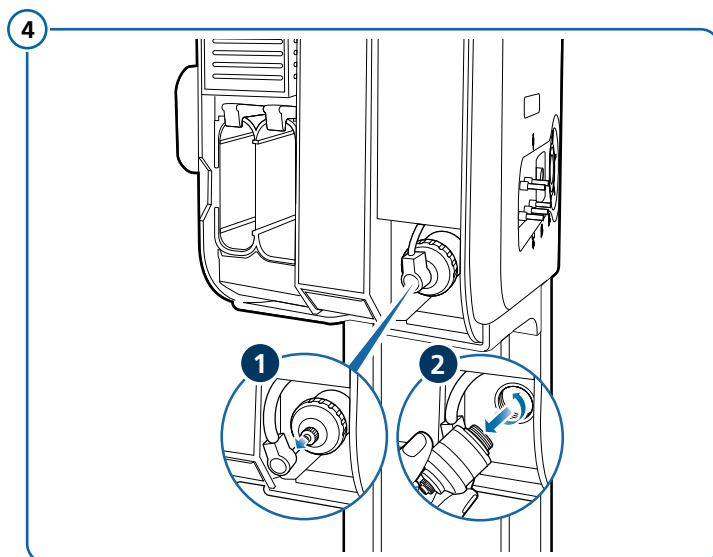
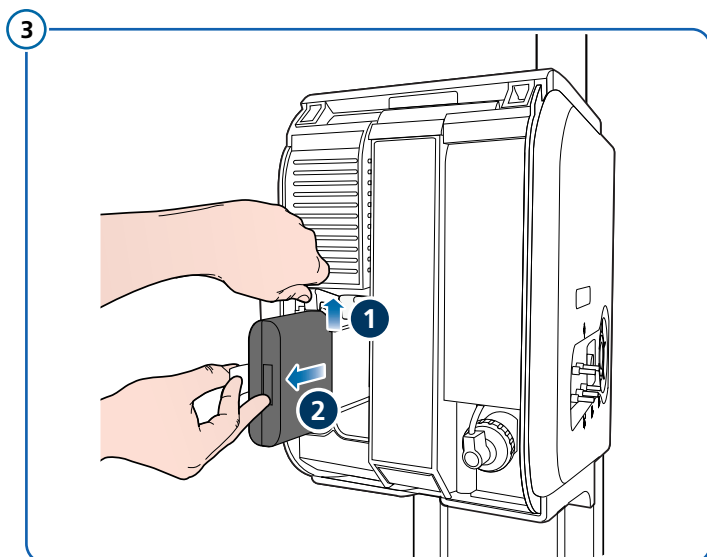
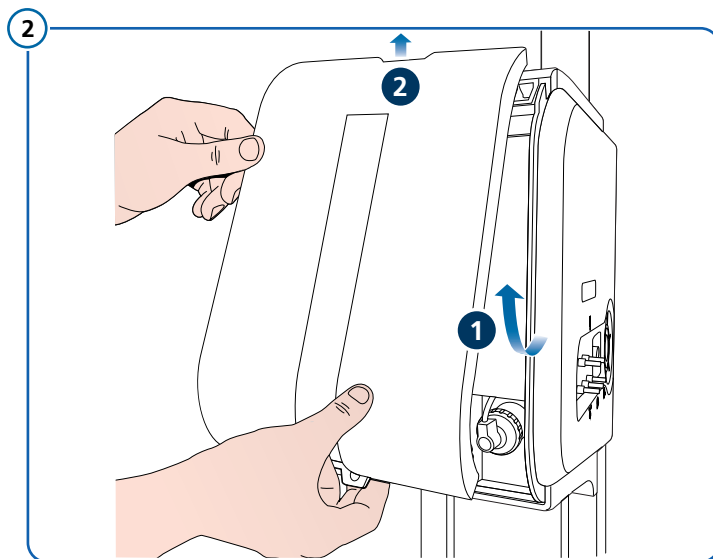
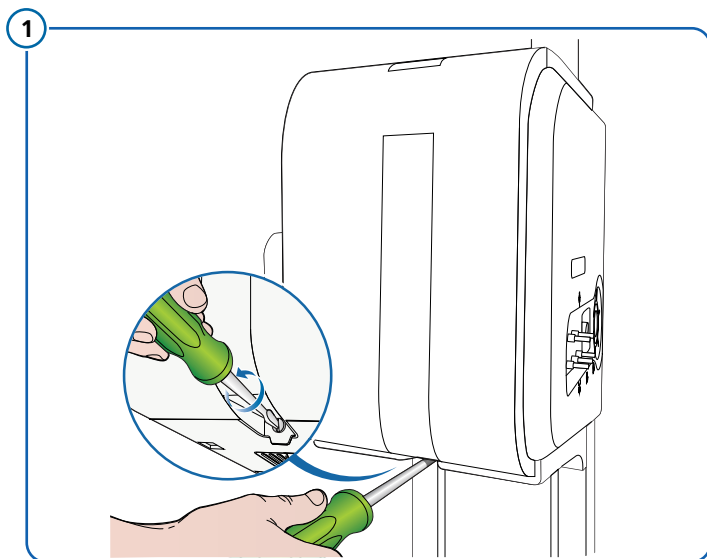
Tests and checks after installation

For details on the electrical safety tests and preoperational checks on the HAMILTON-C6 ventilator, see Chapter 1 – Ventilator Unit and Interaction Panel Overview.

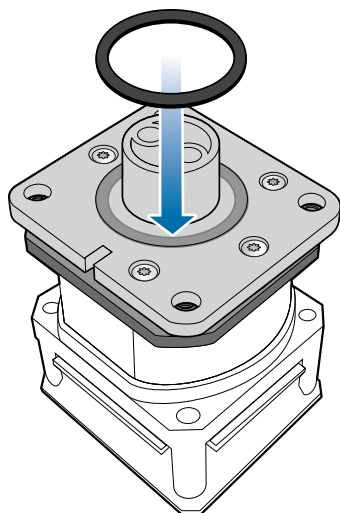
Fill in the HAMILTON-C6 ventilator *Testing and Acceptance Report* after the initial installation. See Chapter 21.



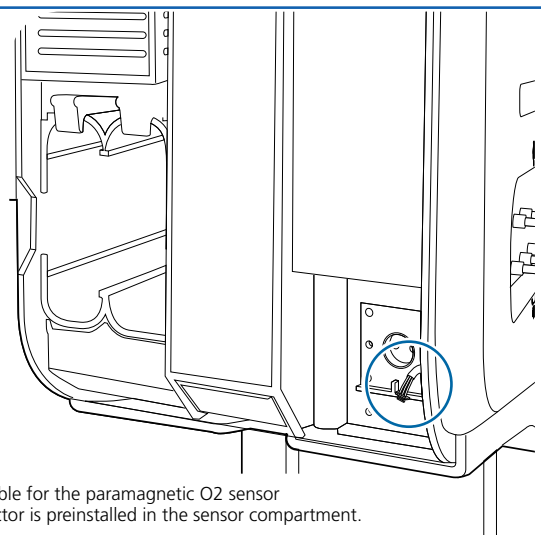
How to assemble the paramagnetic O2 sensor



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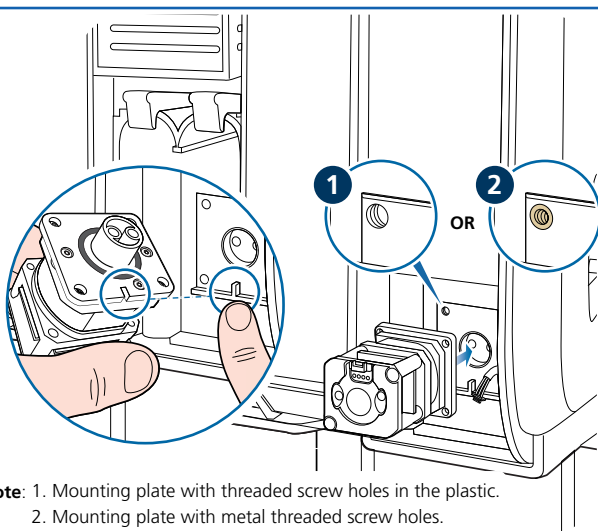


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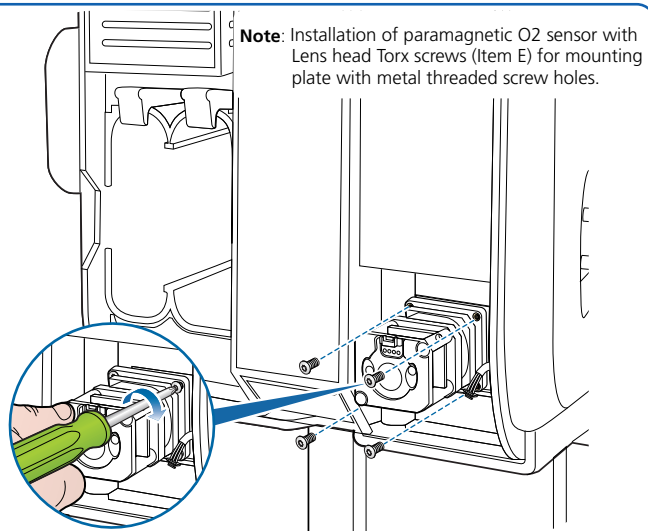
Note: The cable for the paramagnetic O2 sensor connector is preinstalled in the sensor compartment.

9



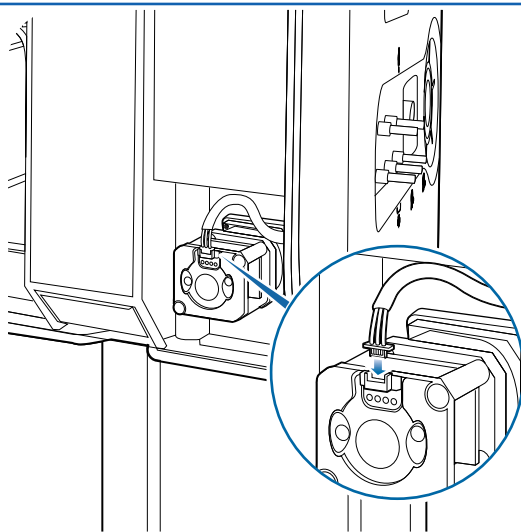
Note: 1. Mounting plate with threaded screw holes in the plastic.
2. Mounting plate with metal threaded screw holes.

10

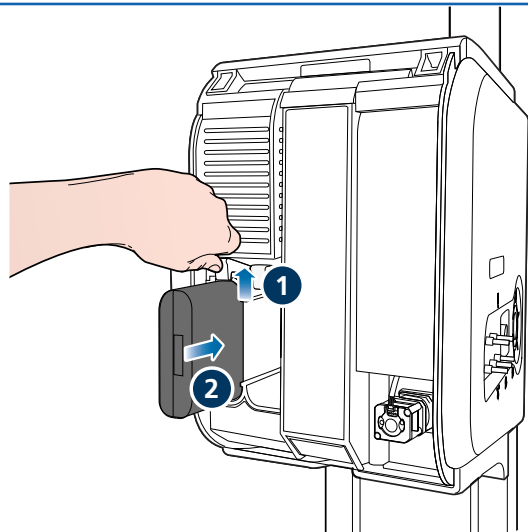


Note: Installation of paramagnetic O2 sensor with Lens head Torx screws (Item E) for mounting plate with metal threaded screw holes.

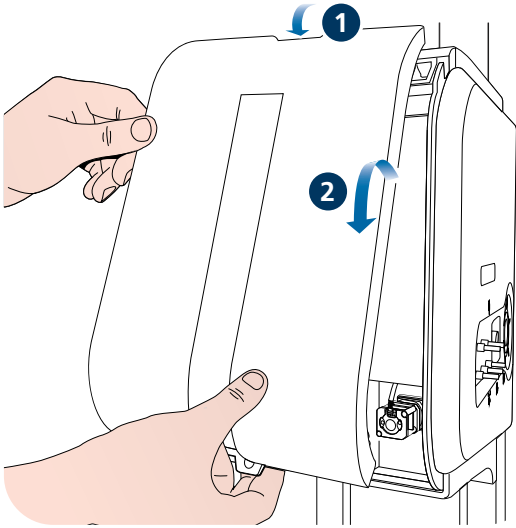
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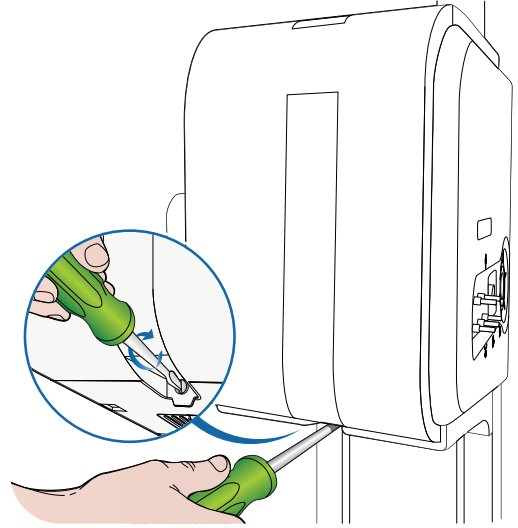
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13



14



HAMILTON-C6 Installation Guide

HAMILTON-H900 Integration Assembly

English | 627075/04

REF 160783, 160969

Required tools

- Allen key (size: 4 mm)
- Spanner/wrench: BS 8 mm or 5/16" AF

Components

- A** 1 x HAMILTON-H900 integration kit (PN 160783)
Contains:
- A1** 1 x Power cable
 - A2** 1 x Humidifier communication cable (RS232 DB9 serial adapter / 5-pin DIN male plug)
- B** 1 x HAMILTON-H900 mounting kit (PN 160969)
Contains:
- B1** 1 x Hex socket cap screw, M8 x 12 mm
 - B2** 1 x Trolley mounting bracket
 - B3** 1 x M6 slot-nut
 - B4** 1 x Knurled head thumb screw, M6 x 16 mm
 - B5** 1 x M6 countersunk washer
- Mounting kit for third-party humidifier:
- B6** 1 x Mounting bracket
 - B7** 2 x Hex socket countersunk screws, M5 x 12 mm

Note: A HAMILTON-C6 Trolley Configuration (PN 160029) is required for the installation. Not included.

HAMILTON-H900 is required for the installation. Not included. Must be ordered separately. There are different voltage outputs for the HAMILTON-H900.

Safety information

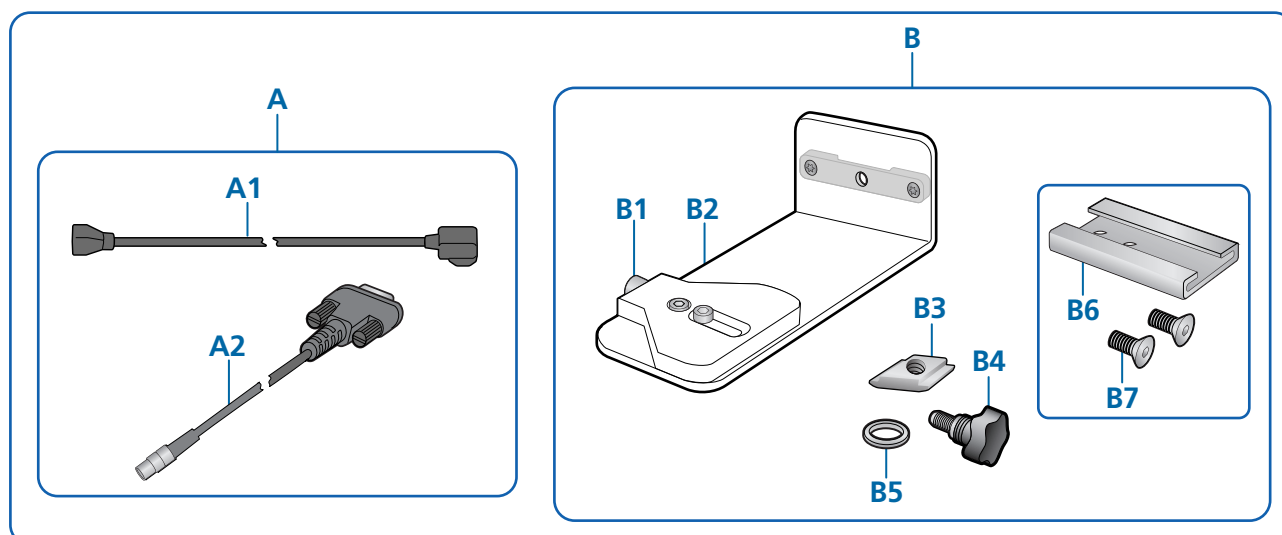
⚠ WARNING

Turn off the VU and disconnect the power cable from the mains power supply before you start the installation. This will prevent possible electric shock or damage to the VU.

Tests and checks after installation

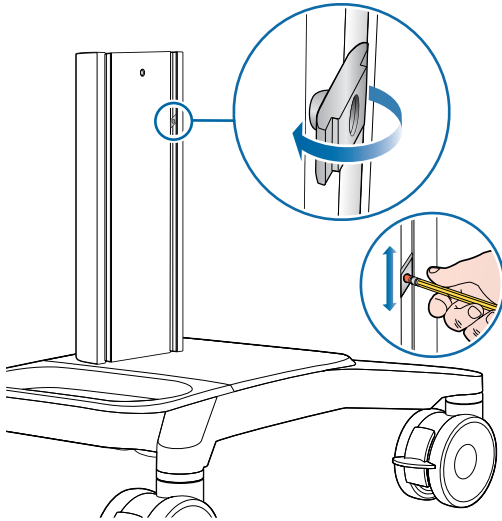
For details on the electrical safety tests and preoperational checks on the HAMILTON-C6 ventilator, see Chapter 1 – *Ventilator Unit and Interaction Panel Overview*.

Fill in the HAMILTON-C6 ventilator *Testing and Acceptance Report* after the initial installation. See Chapter 21.

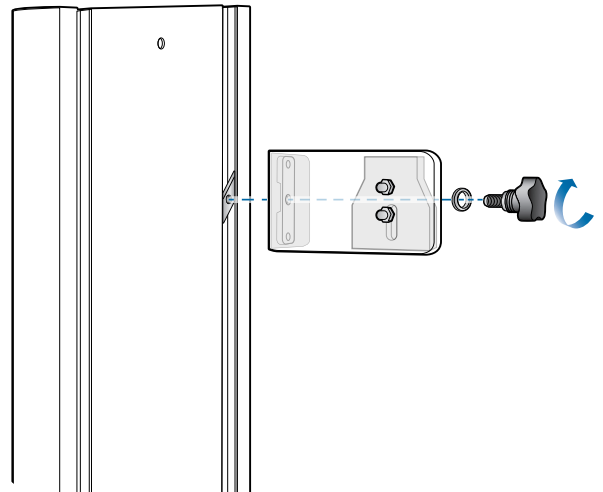


How to assemble the HAMILTON-H900 integration kit

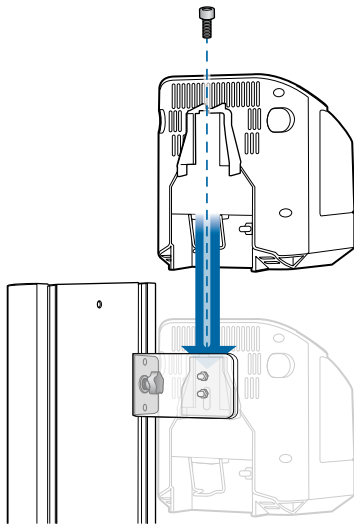
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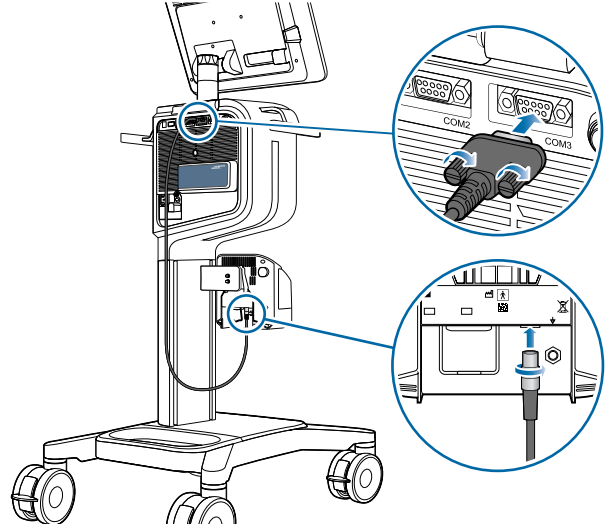
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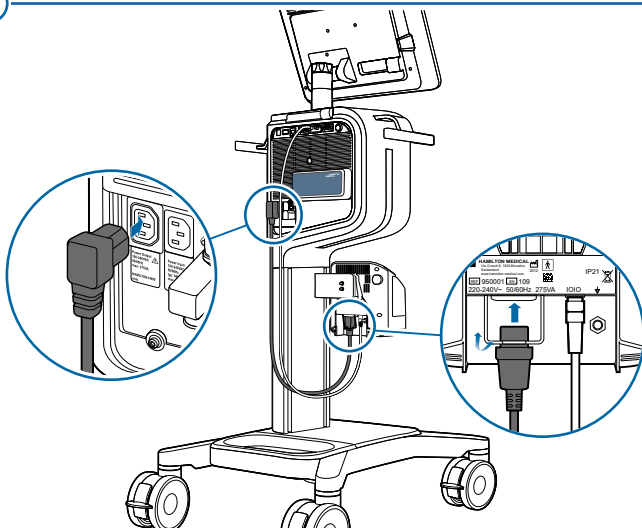
3



4



5

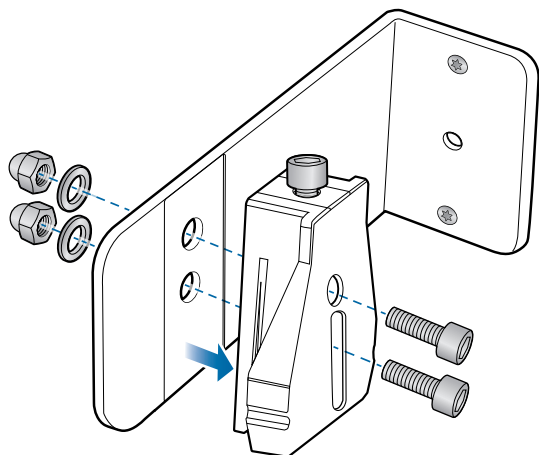


How to assemble the mounting bracket for third-party humidifier

To attach the third-party bracket to the trolley mounting bracket:

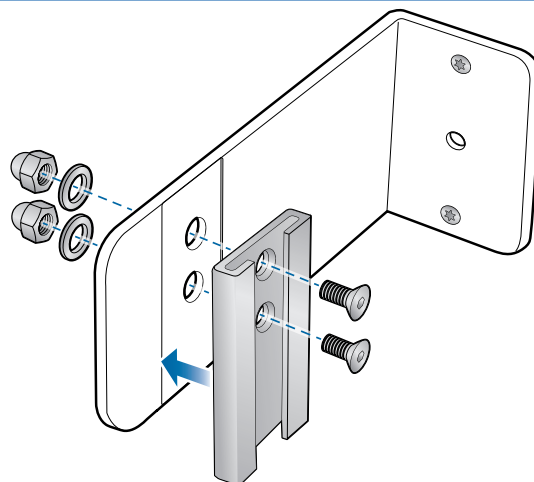
1. Remove the two dome-head hex nuts, the two washers, the two hex socket cap screws, and the HAMILTON-H900 mounting bracket from the trolley mounting bracket.
2. Use the two dome-head hex nuts and the two washers removed from the HAMILTON-H900 mounting bracket, and the two hex socket screws (Item B7) to mount the third-party bracket to the trolley mounting bracket.

1



Removal of the HAMILTON-H900 mounting bracket from the trolley mounting bracket

2



Install the third-party humidifier bracket on the trolley mounting bracket

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HAMILTON-C6 Installation Guide

DISS/NIST Connector Assembly

English | 627075/04

REF 160470, 160471

Required tools

Torx T10 screwdriver

Components

A High-pressure oxygen connector:

1 x DISS connector (PN 160470)

or

1 x NIST connector (PN 160471)*

B 2 x Torx screws, M3 x 10 mm

* NIST connector (PN 160471) image shown in overview below.

Note: A HAMILTON-C6 ventilator (PN 160021) is required for the installation. Not included.

Safety information

⚠ WARNING

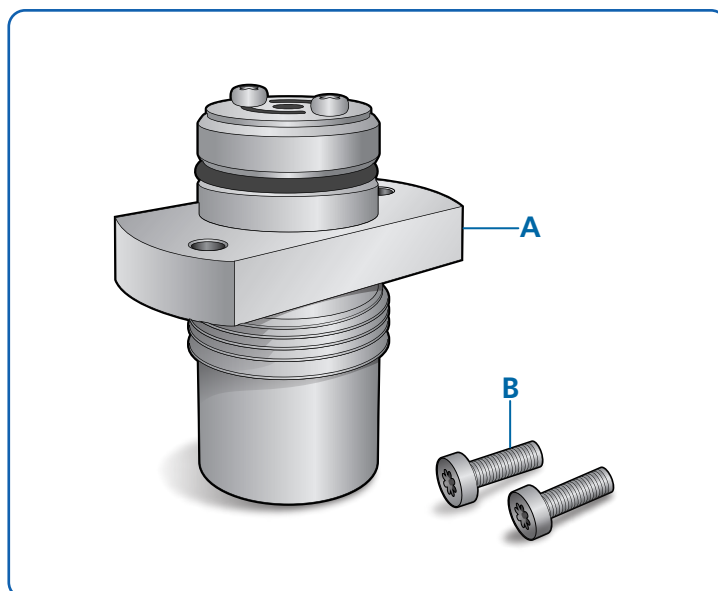
Turn off the VU and disconnect the power cable from the mains power supply before you start the installation. This will prevent possible electric shock or damage to the VU.

NOTICE

The installation for the DISS connector (PN 160470) and the NIST connector (PN 160471) are the same.

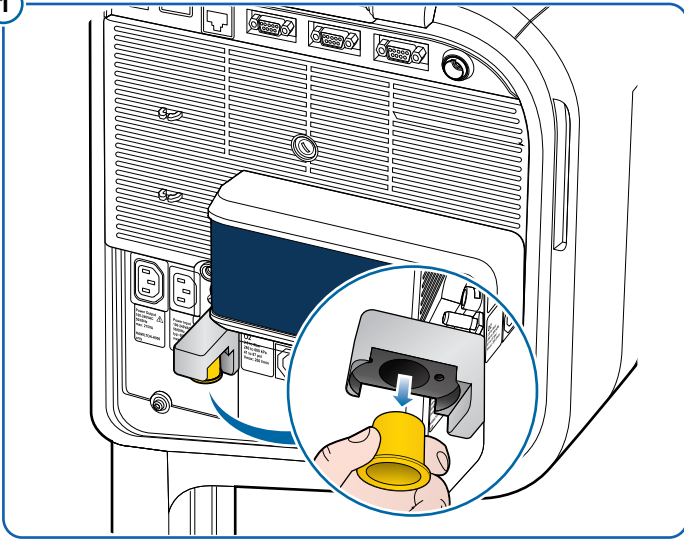
Tests and checks after installation

After the installation, connect a high-pressure oxygen hose to the DISS or NIST connector to check for leakage.

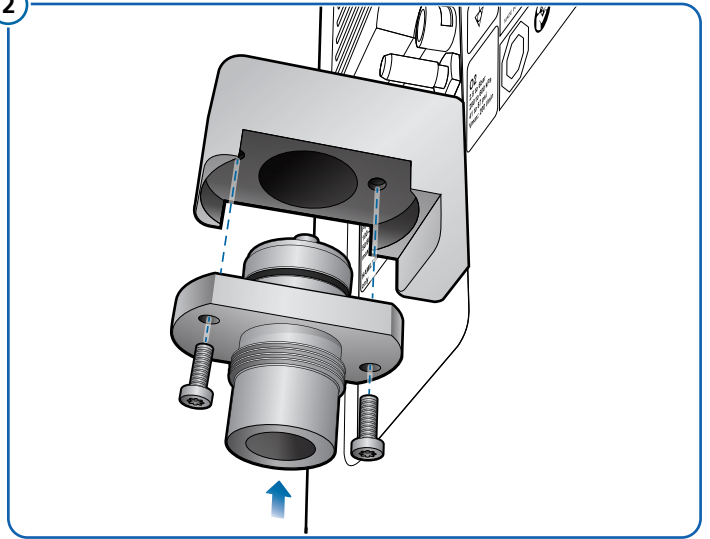


How to assemble the DISS/NIST connector

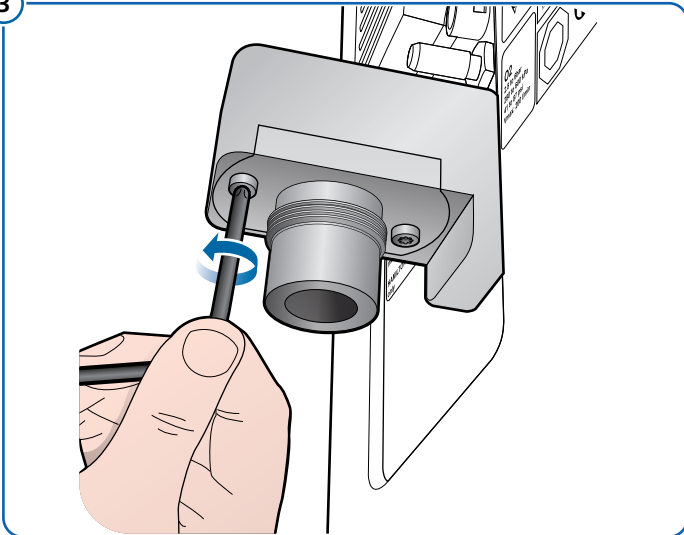
1



2



3



HAMILTON-C6 Installation Guide

Bed Docking System Assembly

English | 627075/04

REF 10072473, 160178, 10103813

Required tools

Allen key (size: 4 mm)

Components

A Bed docking system (PN 10072473)

B Standard rail for trolley (PN 160178)*
Contains:

B1 1 x Standard rail

B2 1 x Slot-nut

B3 1 x Hex socket cap screw, M5 x 12 mm

* Not included. Must be ordered separately.

Note: A HAMILTON-C6 Trolley Configuration (PN 160029) is required for the installation. Not included.

Safety information

⚠ WARNING

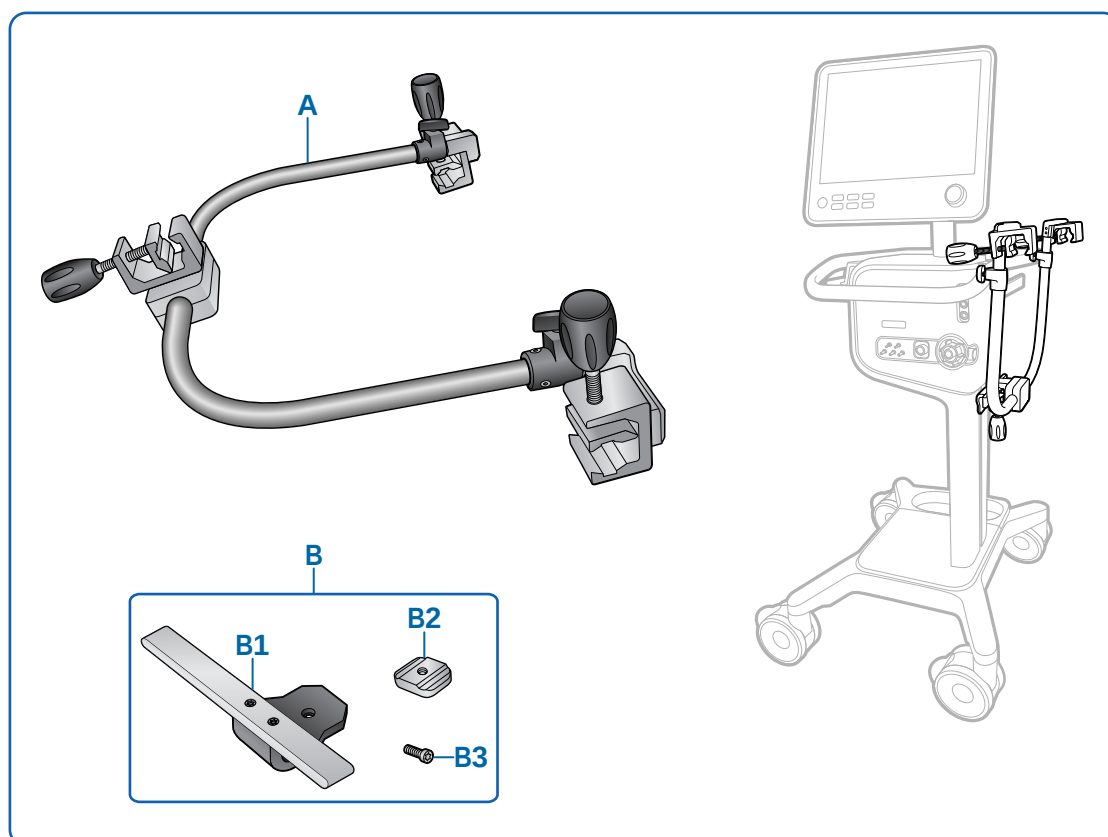
Make sure that the ventilator unit is turned off before you start the installation to prevent possible electric shock.

⚠ CAUTION

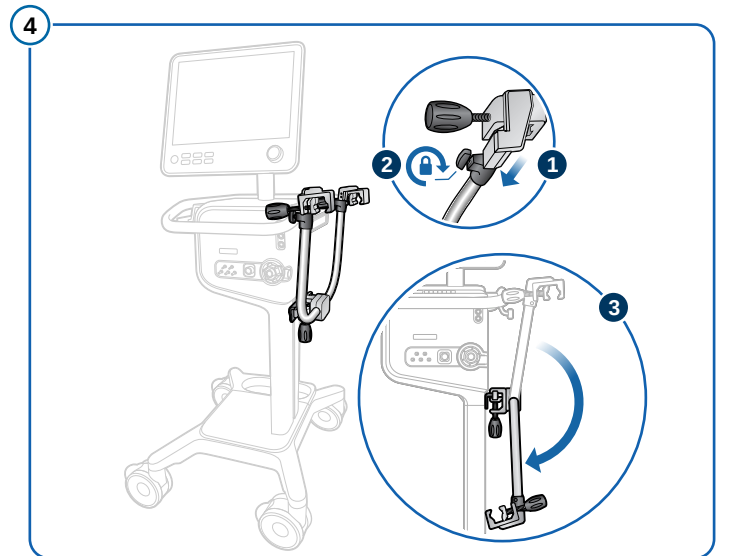
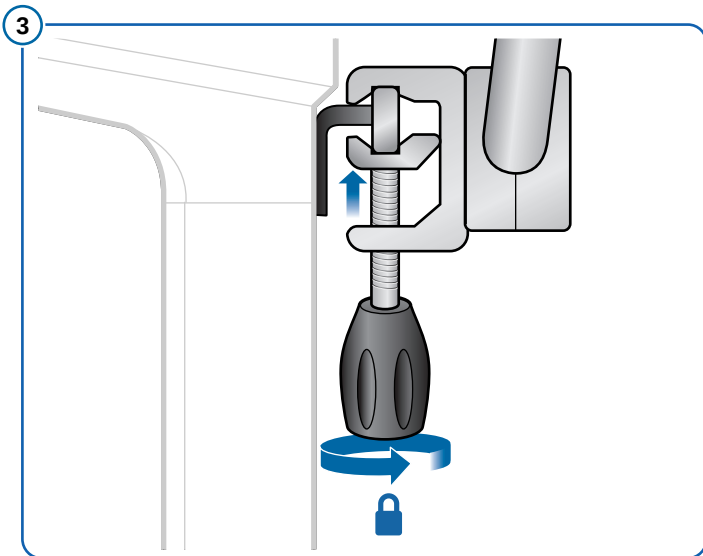
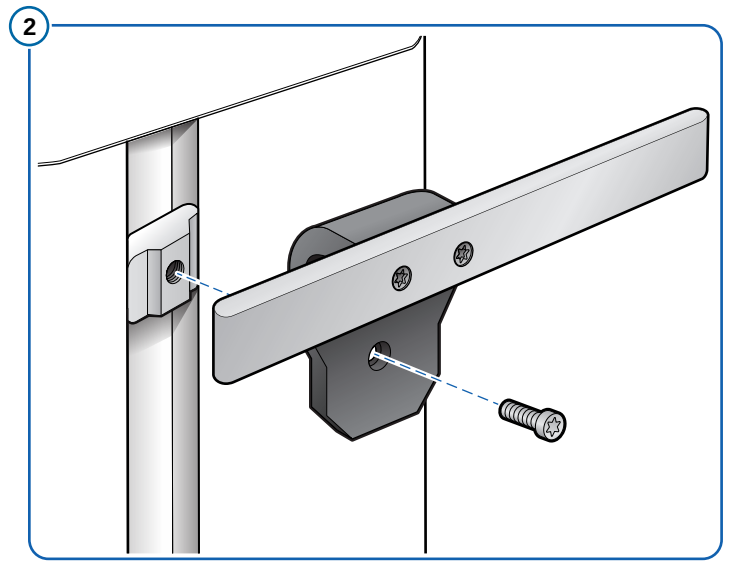
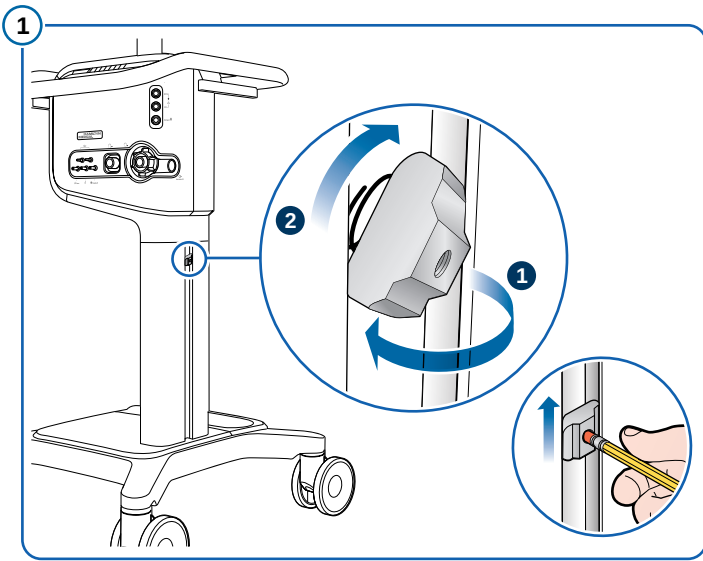
Lock the trolley wheel brakes before you start the installation.

NOTICE

The Bed Docking System Assembly (Item A) and the Standard Rail for Trolley (Item B) can be ordered together as a package with PN 10103813.



How to assemble the bed docking system



HAMILTON-C6 Installation Guide

Water Bottle Holder with Quick-lock Assembly

English | 627075/04

REF 160162, 160154

Required tools

Spanner/wrench: BS 13 mm or 1/2" AF

Components

A 1 x Water bottle holder with quick-lock (PN 160162)

B 1 x Quick-lock socket set (PN 160154)*

Contains:

B1 1 x Quick-lock socket

B2 1 x M8 washer

B3 1 x Hex bolt, reverse thread (fully threaded),
M8 x 12 mm

* Not included. The quick-lock socket set (PN 160154) and the water bottle holder with quick-lock must be ordered separately to complete the assembly.

Note: A HAMILTON-C6 Trolley Configuration (PN 160029) is required for the installation.
Not included.

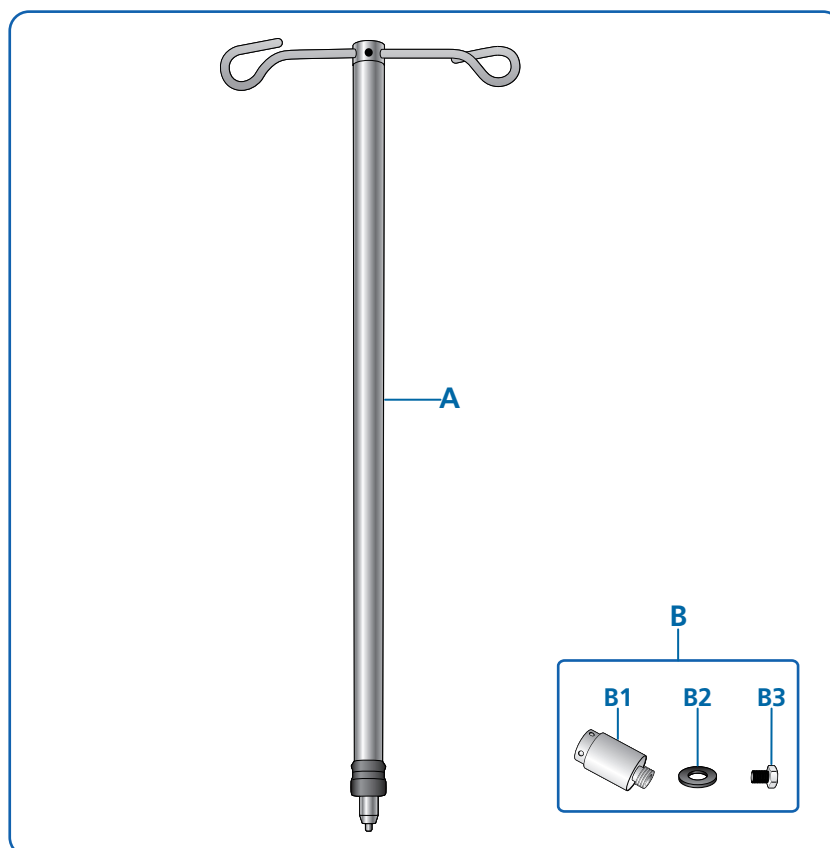
Safety information

⚠ CAUTION

Lock the trolley wheel brakes before you start the installation.

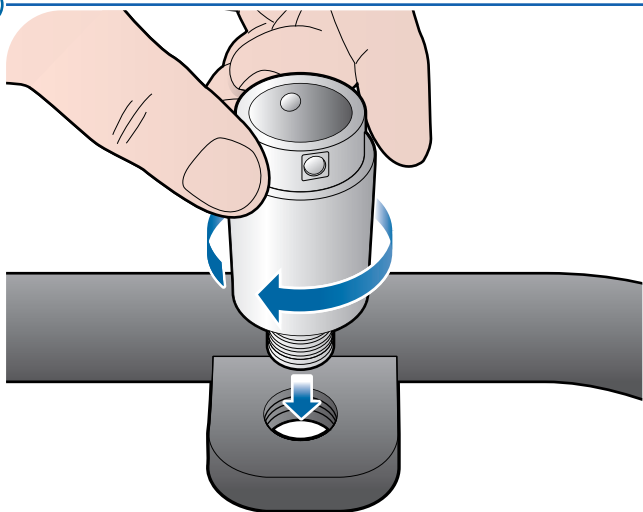
NOTICE

You can mount the water bottle holder with quick-lock on the left or right side of the ventilator unit handle.

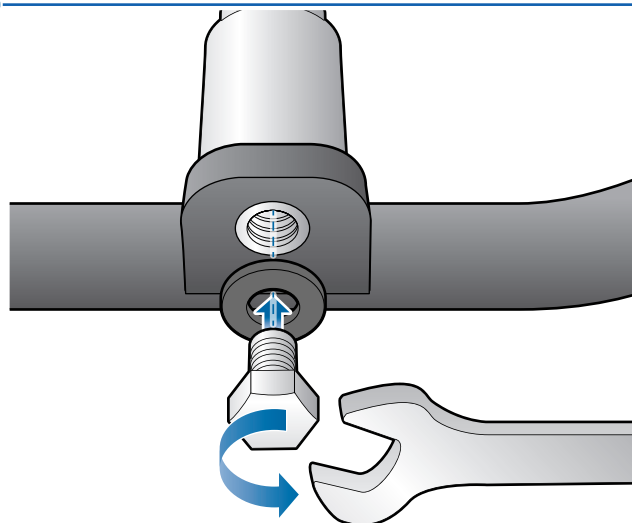


How to assemble the water bottle holder with quick-lock

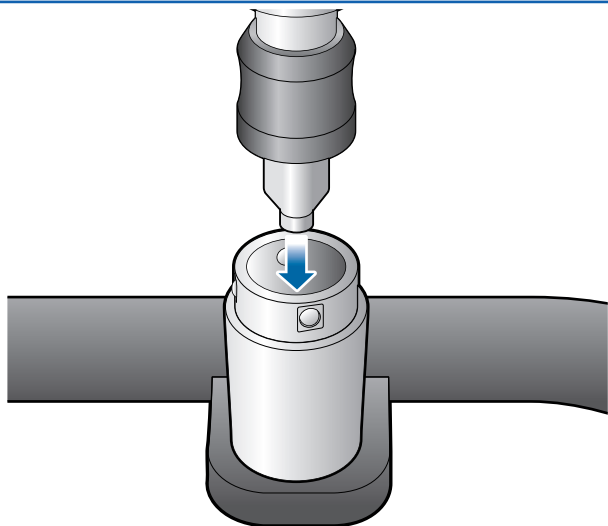
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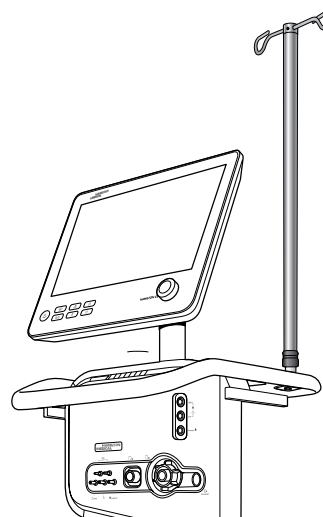
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3



4



HAMILTON-C6 Installation Guide

Tubing Support Arm with Quick-lock Assembly

English | 627075/04

REF 160153

Required tools

Spanner/wrench: BS 13 mm or 1/2" AF

Components

- A** 1 x Plastic tubing holder, double (PN 281673)
- B** 1 x Tubing support arm with quick-lock (PN 160153)
- C** 1 x Quick-lock socket
- D** 1 x M8 washer
- E** 1 x Hex bolt, reverse thread (fully threaded), M8 x 12 mm

Note: A HAMILTON-C6 ventilator (Trolley Configuration PN 160029) is required for the installation. Not included.

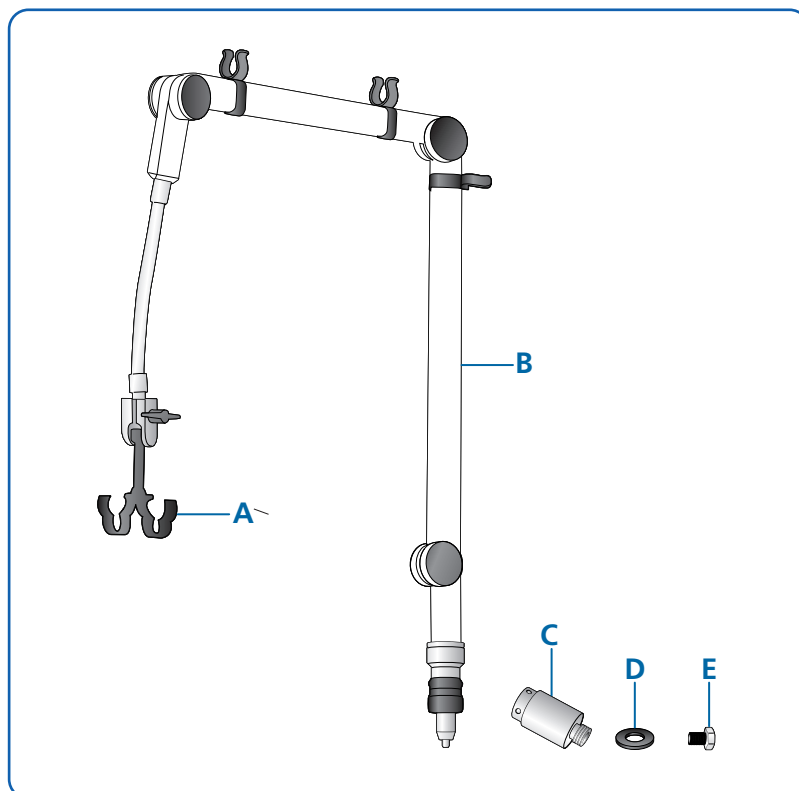
Safety information

⚠ CAUTION

Lock the trolley wheel brakes before you start the installation.

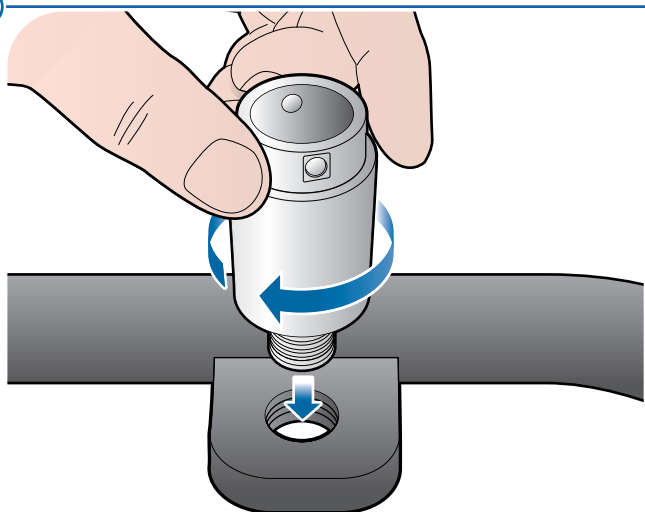
NOTICE

You can mount the tubing support arm with quick-lock on the left or right side of the ventilator unit handle.

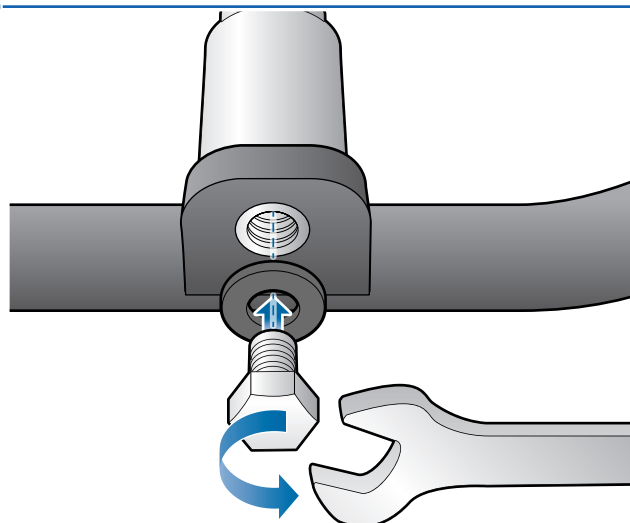


How to assemble the tubing support arm with quick-lock

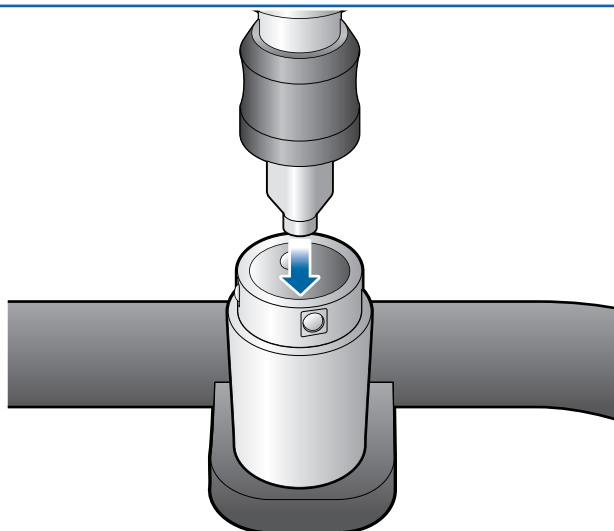
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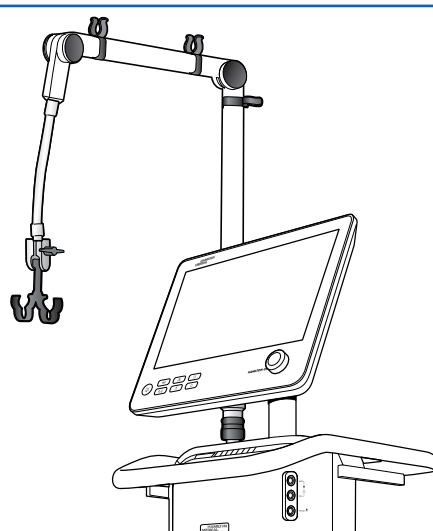
2



3



4



HAMILTON-C6 Installation Guide

Support Arm with Quick-positioning Assembly

English | 627075/04

REF 281533, 281671, 282003

Required tools

No tools required

Safety information

CAUTION

Lock the trolley wheel brakes before you start the installation.

NOTICE

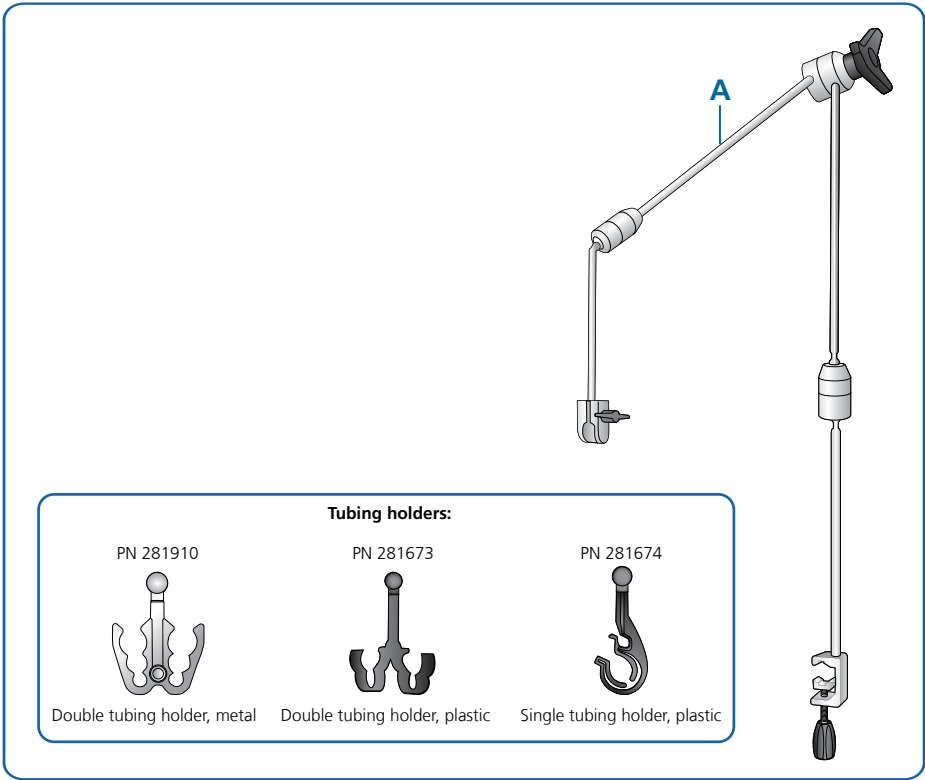
- The installation for the support arm with quick-positioning (PN 281533), support arm with quick-positioning basic (PN 281671), and blue-white (PN 282003) support arm are the same.
- You can mount each one of the support arms (PN 281533, PN 281671, and PN 282003) on the left or right side standard rail on the ventilator unit handle.

Components

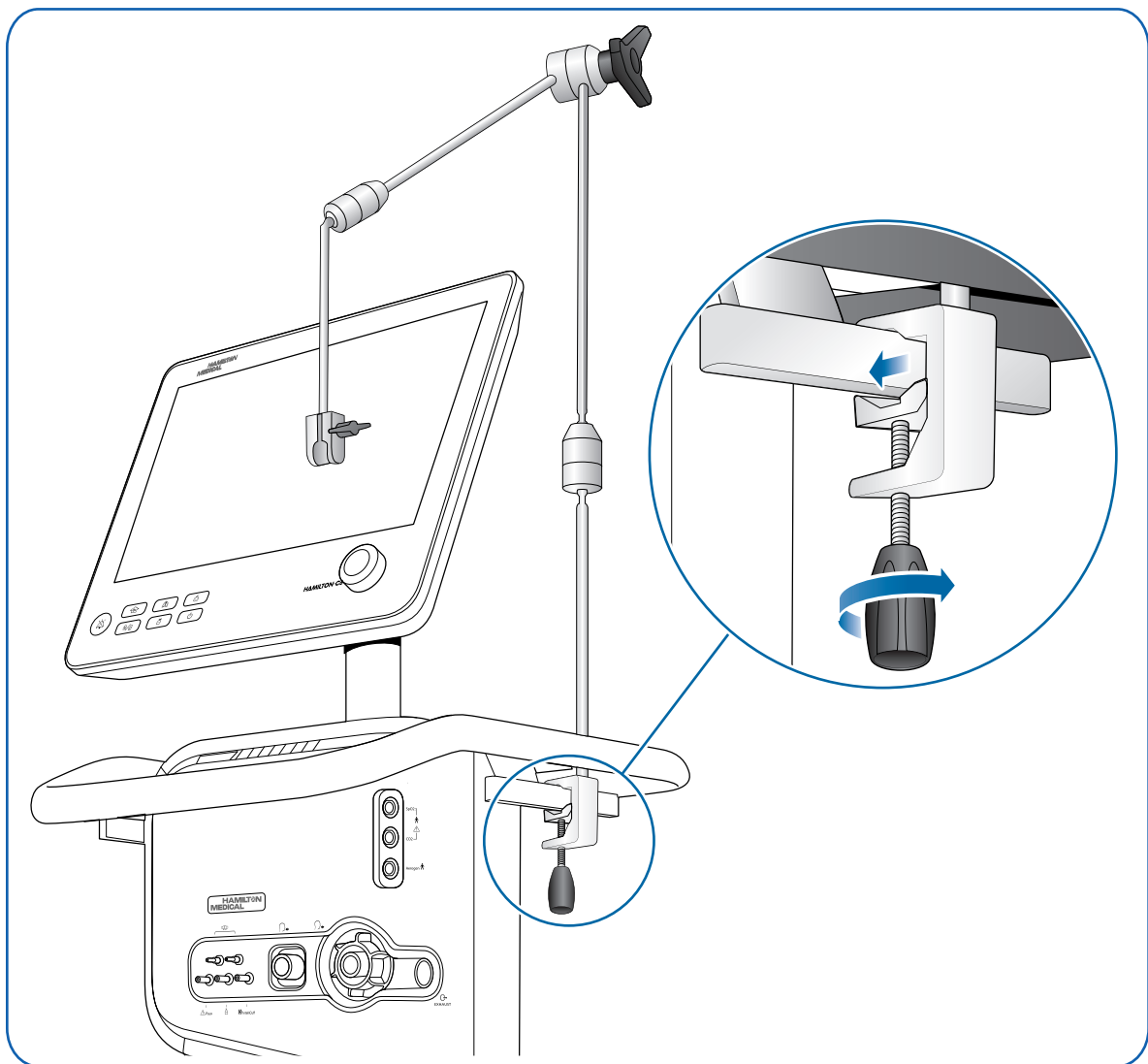
- A** 1 x Quick-positioning support arm (PN 281533)*
Includes:
1 x Double tubing holder, aluminium (PN 281910)
1 x Single tubing holder, plastic (PN 281674)
or
B 1 x Quick-positioning basic support arm (PN 281671)
Includes:
1 x Double tubing holder, plastic (PN 281673)
or
C 1 x Blue-white support arm (PN 282003)

* Only the support arm with quick-positioning (Item A, PN 281533) image is shown in the overview below..

Note: A HAMILTON-C6 Trolley Configuration (PN 160029) is required for the installation.
Not included.



How to assemble the support arm with quick-positioning



HAMILTON-C6 Installation Guide

O2 Cylinder Holder Bracket Assembly

English | 627075/04

REF 160971

Required tools

No tools required

Components

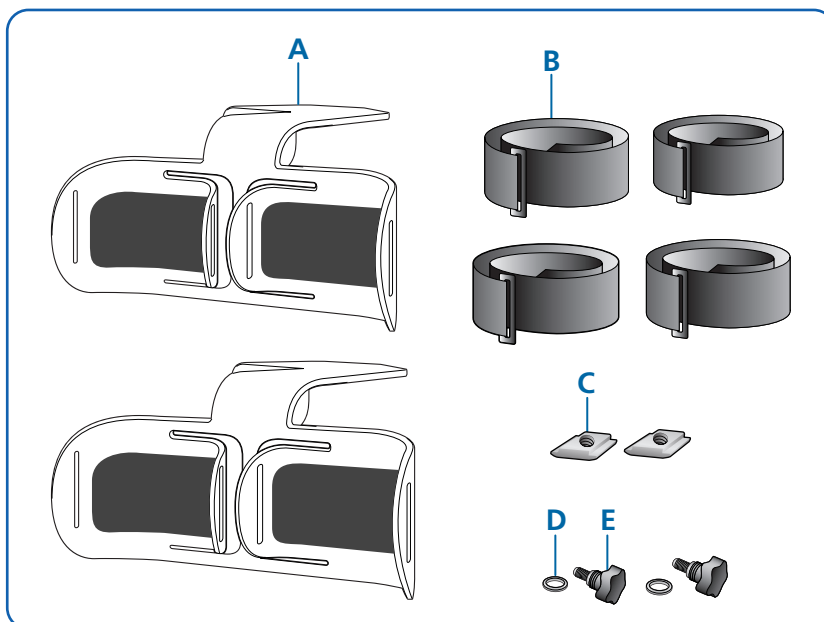
- A** 2 x O2 cylinder holder brackets (PN 160135)
- B** 4 x Velcro straps
Dimension: 550 mm (L) x 50 mm (W)
- C** 2 x Slot-nuts
- D** 2 x M6 countersunk washers
- E** 2 x Knurled head thumb screws, M6 x 16 mm

Note: A HAMILTON-C6 Trolley Configuration (PN 160029) is required for the installation
Not included.

Safety information

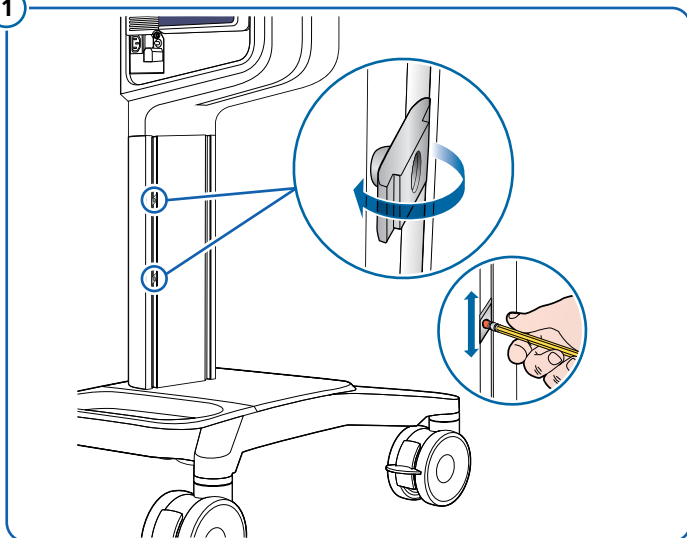
⚠ CAUTION

- Lock the trolley wheel brakes before you start the installation.
- The O2 cylinder holder brackets must be mounted on the left side of the trolley column.

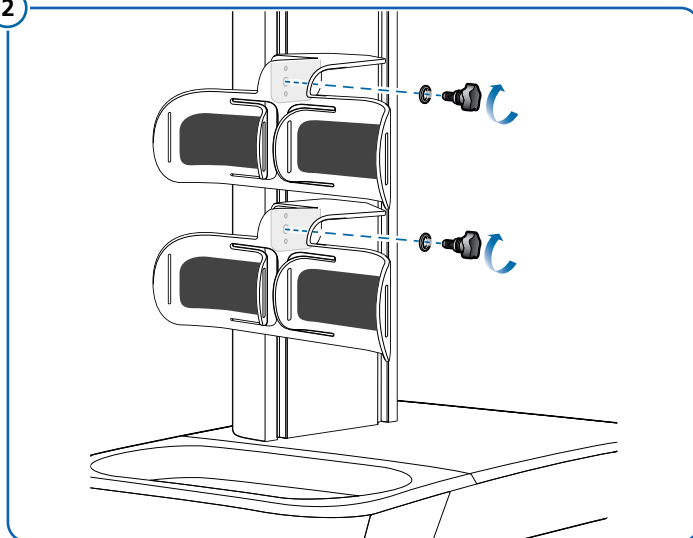


How to assemble the O2 cylinder holder bracket

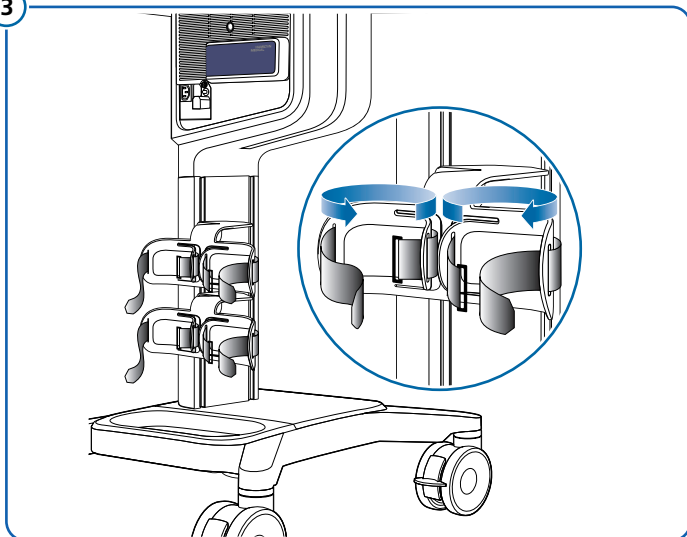
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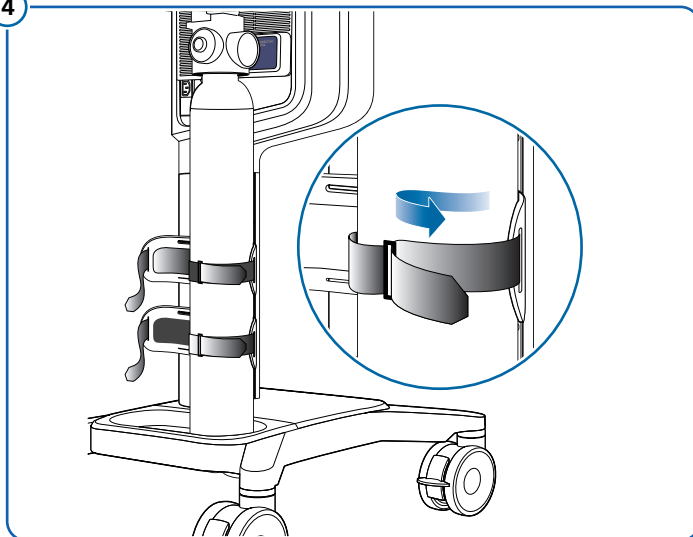
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HAMILTON-C6 Installation Guide

Basket Assembly

English | 627075/04

REF 160177

Required tools

Allen key (size: 5 mm)

Safety information

⚠ CAUTION

Lock the trolley wheel brakes before you start the installation.

Components

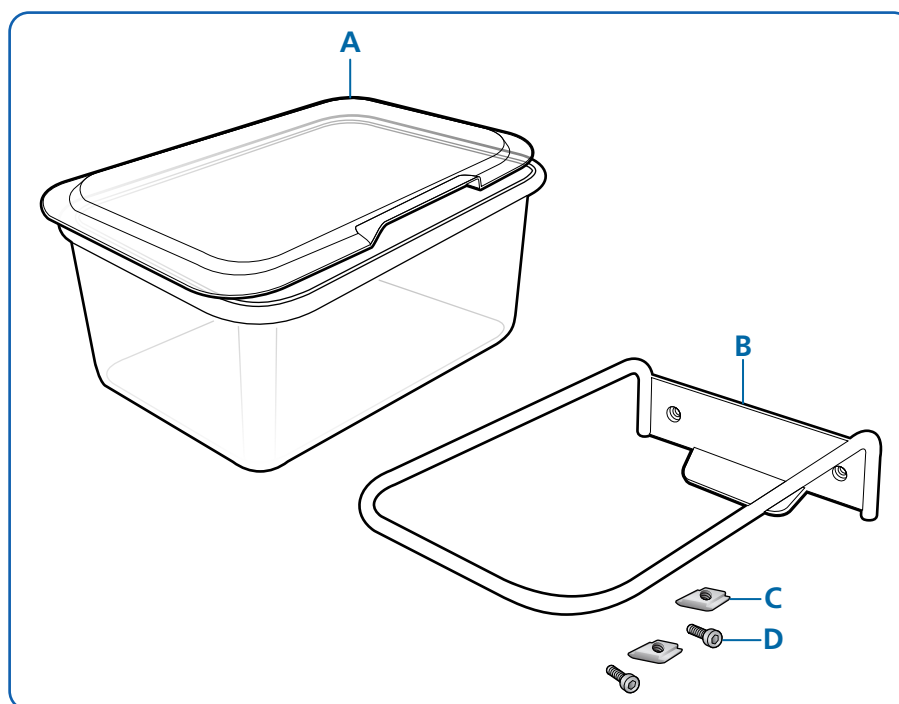
A 1 x Trolley basket with cover (PN 160116)

B 1 x Mounting bracket (PN 160113)

C 2 x Slot-nuts

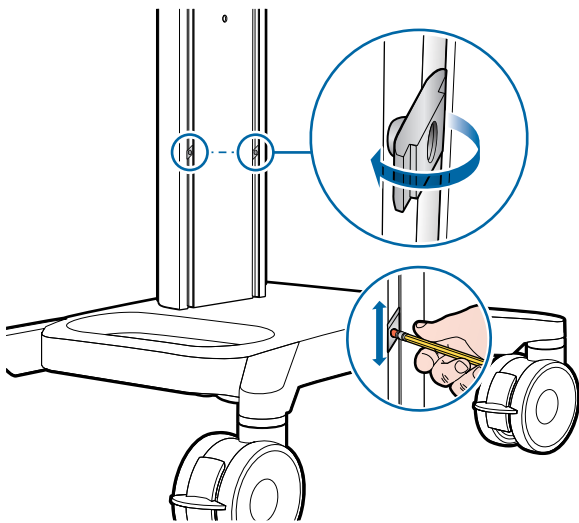
D 2 x Hex socket cap screws, M6 x 12 mm

Note: A HAMILTON-C6 Trolley Configuration (PN 160029) is required for the installation
Not included.

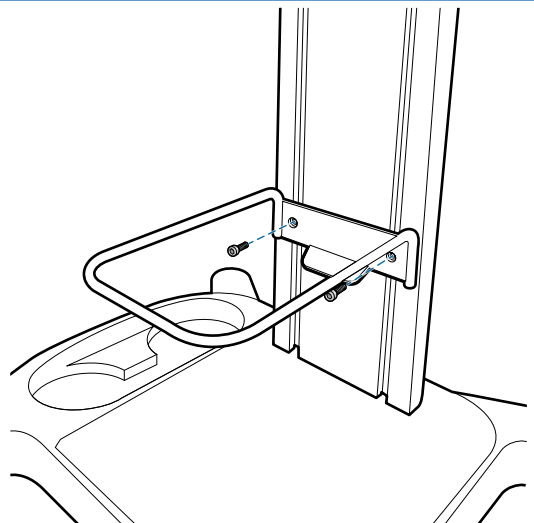


How to assemble the basket

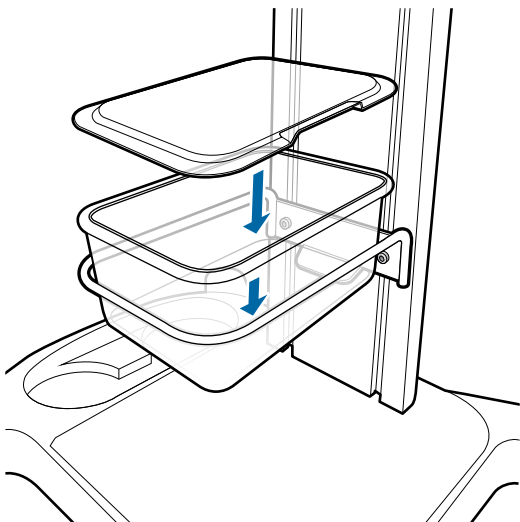
1



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HAMILTON-C6 Installation Guide

O2 Supply Hose Hanger (Including Cable Clips)

English | 627075/04

REF 160165

Required tools

No tools required

Safety information

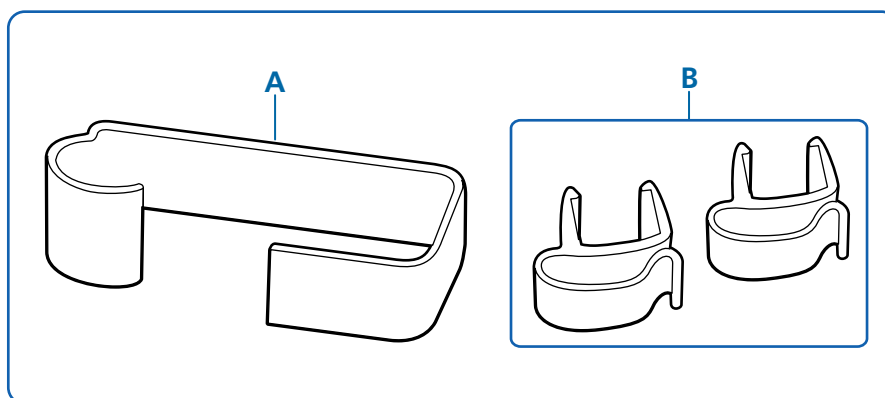
⚠ CAUTION

Lock the trolley wheel brakes before you start the installation.

Components

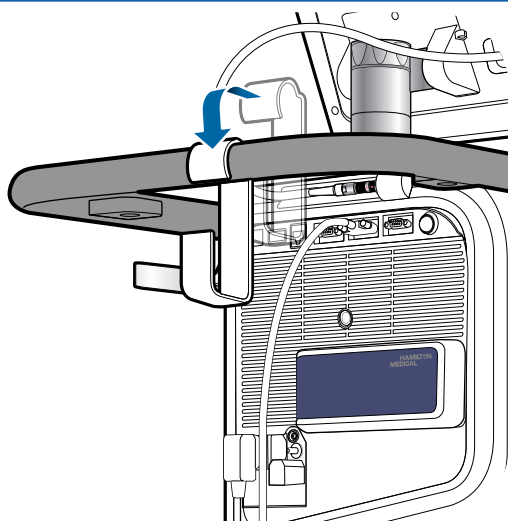
- A** 1 x O2 supply hose hanger (PN 160118)
- B** 2 x Standard rail clips for accessories cables (PN 361104)

Note: A HAMILTON-C6 Trolley Configuration (N 160029) is required for the installation. Not included.

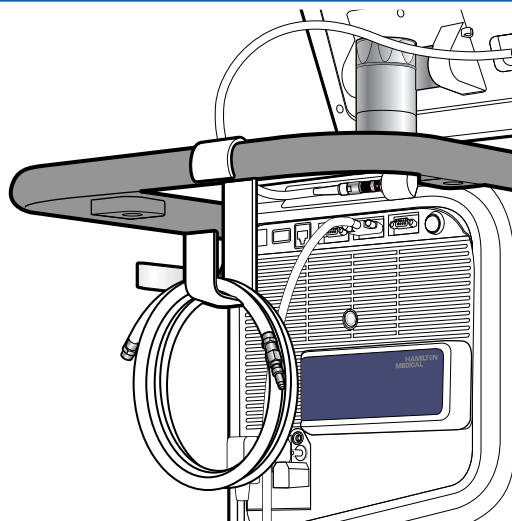


How to assemble the oxygen supply hose hanger

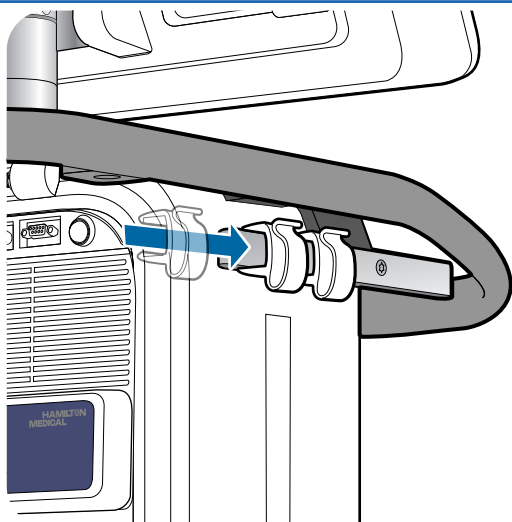
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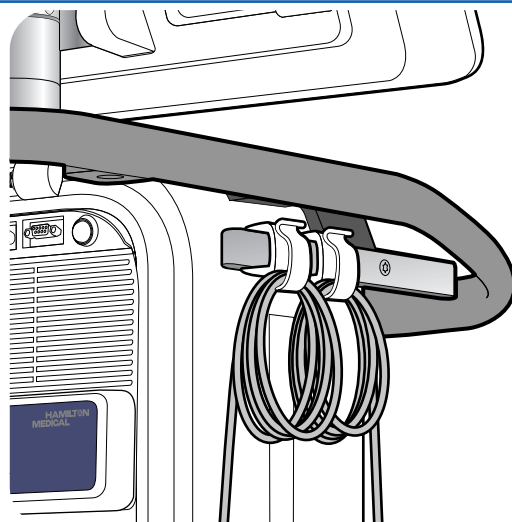
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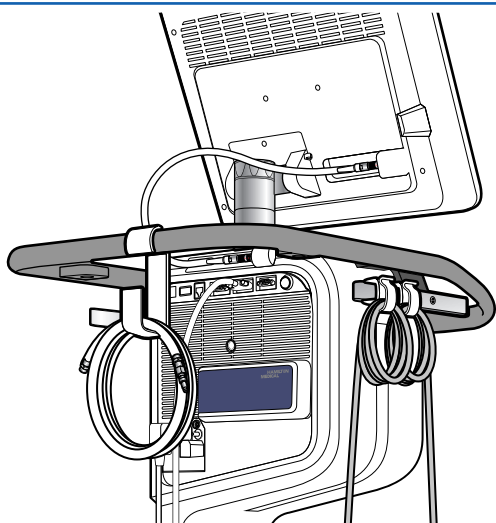
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HAMILTON-C6 Installation Guide

Options Stickers

English | 627075/04

REF 10068141

Required tools

No tools required

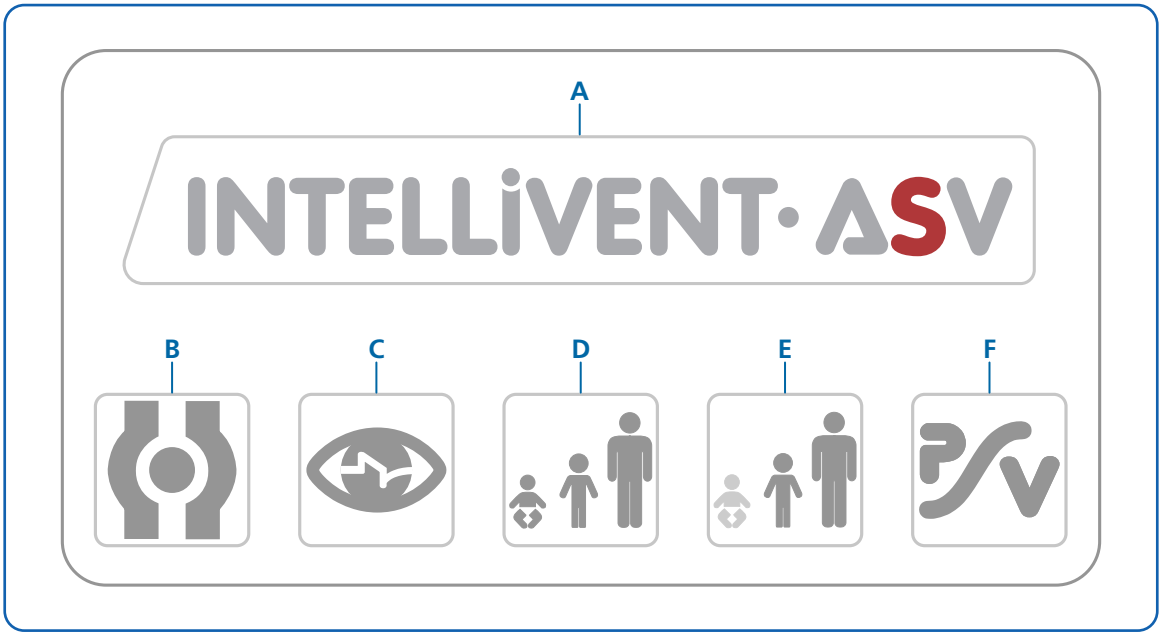
Safety information

⚠ CAUTION

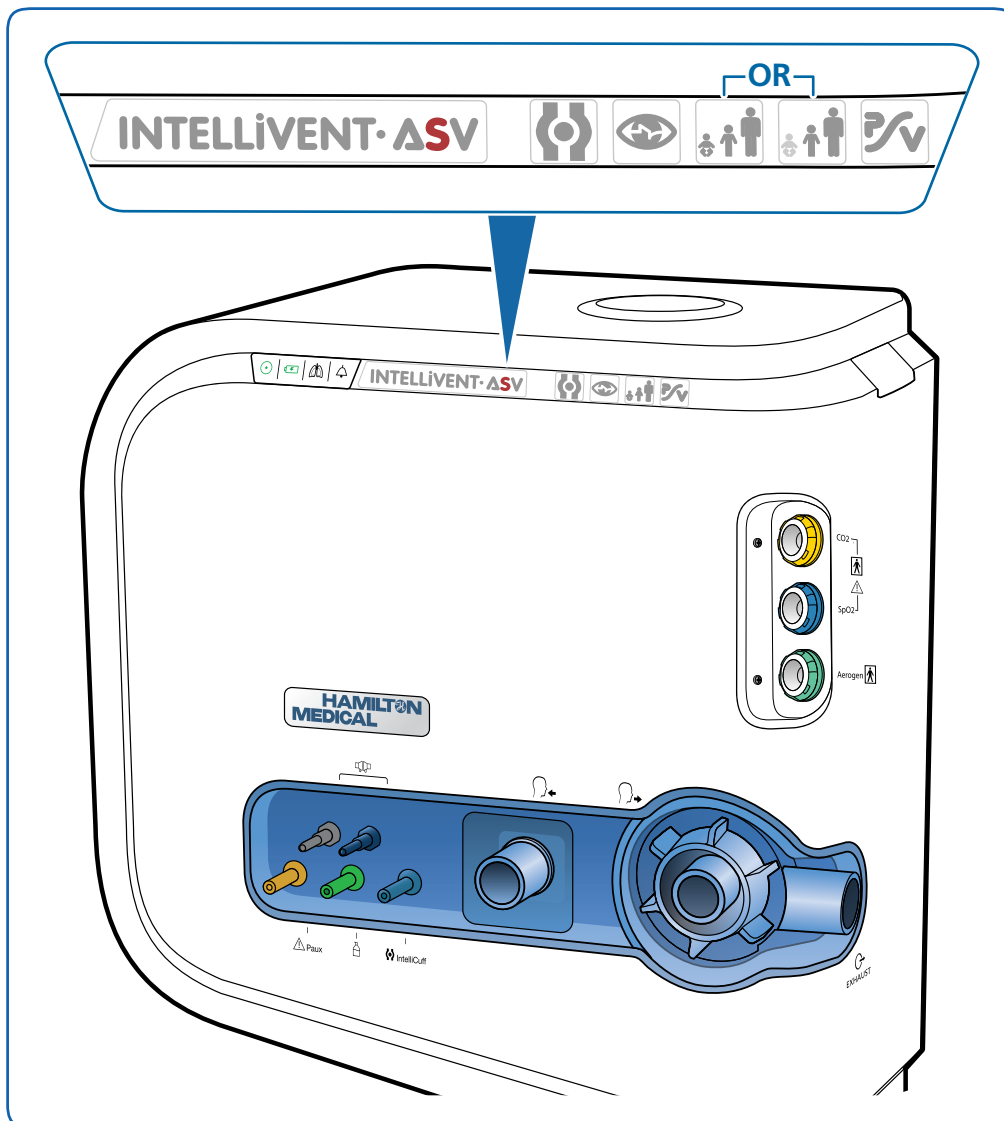
Attach the option sticker only if the option is installed on the ventilator unit.

Options stickers

- A 1 x INTELLiVENT-ASV option sticker
- B 1 x Integrated IntelliCuff option sticker
- C 1 x IntelliSync+ option sticker
- D 1 x Patient group (neonate, paediatric, and adult) option sticker
- E 1 x Patient group (paediatric and adult) option sticker
- F 1 x P/V Tool Pro option sticker



How to attach the options stickers on the VU



HAMILTON-C6 Installation Guide

Testing and Acceptance Report

English | 627075/04

REF 160021

HAMILTON-C6 Ventilator – Testing and Acceptance Report for Initial Installation

⚠ CAUTION

Do not put the HAMILTON-C6 ventilator into service if any of the tests/checks specified in the Testing and Acceptance Report fails. Service the ventilator before you put it into service.

Do the following tests and checks after the initial installation of the HAMILTON-C6 ventilator:

HAMILTON-C6 Ventilator – Testing and Acceptance Report for Initial Installation				[1/2]	
Interaction panel (IP) serial number: SN _____ Ventilator unit (VU) serial number: SN _____ Software version: _____ Name of hospital and place: _____ Name of distributor and country: _____ Name of installer: _____ Date (YYYY/MM/DD): _____ / _____ / _____					
Task/Check	Verify or observe...	HAMILTON-C6 ventilator Manual Ref.	Task/Check Status:		
			OK	Not OK	
Check that the VU-IP cable is connected correctly to the IP and VU.		See the Installation Guide (PN 627075), Chapter 4 <i>Shelf Mount Solution Assembly</i>	☐	☐	
Check that the DISS or NIST connector is installed and a high oxygen supply hose is connected.	The gas hose connection is leak-tight.	See the Installation Guide (PN 627075), Chapter 12; and the Operator's Manual (PN 624945), Chapter 3 <i>Preparing the ventilator.</i>	☐	☐	
Check that the ventilator battery is installed.		See the Installation Guide, Chapter 10.	☐	☐	
Connect the breathing circuits.	The breathing circuits are assembled correctly.	See the Operator's Manual (PN 624945), Chapter 3 <i>Preparing the ventilator.</i>	☐	☐	
Connect the VU power cable to an AC power socket.		See the Operator's Manual (PN 624945), Chapter 3 <i>Preparing the ventilator.</i>	☐	☐	
Do a functional check on the VU and the IP power cycle (on and off): Note: Wait for the VU to complete the start up or shut down process for each power cycle. - Turn on, then turn off the VU with the push-button switch: push and release the switch on the rear of the VU. - Turn on, then turn off the IP with the Power/Standby key: press and release the Power/Standby key on the lower front of the IP.	During the startup process, the IP alarm lamp flashes red, yellow, and blue followed by a short sound for the speaker test and a beep for the buzzer test.	See the Operator's Manual (PN 624945), Chapter 3 <i>Preparing the ventilator.</i>	☐	☐	

HAMILTON-C6 Ventilator – Testing and Acceptance Report for Initial Installation [2/2]				
Task/Check	Verify or observe...	HAMILTON-C6 ventilator Manual Ref.	Task/Check Status:	
			OK	Not OK
Set the date and time.		See the Operator's Manual (PN 624945), Chapter 10 <i>Ventilation settings and functions</i> .	☐	☐
Select the desired language for the user interface.	Verify that information on the display is shown in the selected language.	See the Operator's Manual (PN 624945), Chapter 14 <i>Configuration</i> .	☐	☐
Do the tightness test, then calibrate the flow sensor.	- The tightness test passes: all breathing circuits' connections are leak-tight. - The flow calibration is successful.	See the Operator's Manual (PN 624945), Chapter 5 <i>Specifying ventilation settings</i> .	☐	☐
Calibrate the oxygen sensor.		See the Operator's Manual (PN 624945), Chapter 5 <i>Specifying ventilation settings</i> .	☐	☐
Do a functional check on the communication board: CO2 and SpO2 sensors, and the Aerogen® cables		See the Operator's Manual (PN 624945), Chapter 14 <i>Configuration</i> and the <i>Communication board User Guide</i> .	☐	☐
Simulate the loss of external power (AC) alarm test.	The loss of external power alarm is generated and that the ventilator is powered by its backup battery.	See the Operator's Manual (PN 624945), Chapter 5 <i>Specifying ventilation settings</i> .	☐	☐
Reconnect the VU power cable to the AC power socket.	The alarm resets and the ventilator is powered again by the AC power.	See the Operator's Manual (PN 624945), Chapter 5 <i>Specifying ventilation settings</i> .	☐	☐
Check that the IntelliCuff is setup correctly if installed.		See the Installation Guide (PN 627075), Chapter 8; and the Operator's Manual (PN 624945), Chapter 4 <i>Setting up external devices and sensors</i> .	☐	☐
Check that the HAMILTON-H900 humidifier is setup correctly if installed.		See the Installation Guide (PN 627075), Chapter 9; and the Operator's Manual (PN 624945), Chapter 4 <i>Setting up external devices and sensors</i> .	☐	☐
Do the electrical safety tests as specified in the <i>HAMILTON-C6 Service Manual</i> .	Verify that the electrical safety tests are performed successfully.	See the Service Manual (PN 627038), Chapter 6 <i>Electrical safety</i> .	☐	☐
Reset the Service date after you have completed all the tests/checks. Note: The next service date will be set to one calendar year based on the current date.		See the Service Manual (PN 627038), Chapter 7 <i>Service software</i> .	☐	☐

Record of test equipment

Test Equipment	Type/Model	Serial Number (SN)
Electrical safety analyzer	_____	SN _____

NOTICE

- If the HAMILTON C6 ventilator does not pass the *initial installation tests and checks*, contact your local Hamilton Medical representative or Hamilton Medical’s technical support for assistance.
- After you have completed the *Initial Installation Testing and Acceptance Report* for the HAMILTON-C6 ventilator, please send a copy of the report to your local Hamilton Medical representative or Hamilton Medical (techsupport@hamilton-medical.com), and save/archive the original report for your records.

Remarks:

Date (YYYY/MM/DD):

____/____/____

Signature:



More information and free software simulation:
www.hamilton-C6.com



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Intelligent Ventilation since 1983



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