

# THS<sup>TM</sup> NEONATAL CART OPERATING GUIDE









## Copyrights

Copyright 2023 Technimount Medical Inc. is an affiliated company of Technologies CGC Inc. All Rights Reserved. No part of this publication may be reproduced, transmitted, transcribed, backed-up on a retrieval system, translated in any language, modified in any form or by any means, without the written permission of Technimount or its affiliate companies.

## Trademarks

Product and medical device manufacturer names are Trademarks<sup>™</sup> or Registered Trademarks<sup>®</sup> of their respective holders.

- Technimount Medical<sup>®</sup> is a registered trademark of Technologies CGC Inc.
- THS<sup>™</sup> is a trademark of Technologies CGC Inc.
- Babyleo® is a registered trademark of Draeger.
- Serres<sup>®</sup> is a registered trademark of Serres Inc.

For any issues with your Technimount product, its components, or for any technical questions during the installation, operation, or maintenance, please contact Technical Support at techsupport@technimount.com.

## **Contact Information**

#### Technimount Medical Inc.

C/O: Regulatory Affairs 3770 Jean Marchand Street, Suite 100-B Quebec (Quebec) G2C 1Y6 Canada customerservice@technimount.com techsupport@technimount.com legal@technimount.com www.technimount.com T + 1 581 700-6583

TF + 1 888 521-0871 (North America)



## Table of contents

Copyrights	ii
Trademarks	ii
Contact Information	ii
1. Safety Guidelines	4
2. THS Neonatal Cart Orientation Diagram	6
3. Operate the THS Neonatal Cart	7
3.1. Install the THS Neonatal Cart on the Babyleo Incubator	8
3.2. Remove the THS Neonatal Cart from the Babyleo Incubator	10
3.3. Install a Type D-M15 and Type E-M24 Gas Cylinder	12
3.4. Remove a Type D-M15 and Type E-M24 Gas Cylinder	13
3.5. Install a Serres Suction Canister (Optional)	13
3.6. Removal of a Serres Suction Canister (Optional)	14
3.7. Operate the IV Pole	14
4. Perform the Daily Safety Checks	
4.1. Required Tools	15
4.2. Daily Safety Checks	15
4.3. Illustrated Inspection Points	



## 1. Safety Guidelines



## WARNING – Hand Crush/Pinch Point

Keep fingers away from the extremity of the fold-up hitch, it's clip and quick release mechanism during coupling operations. The mobile parts can represent a risk of pinching.



## WARNING – Risk of Injury

Always ensure that the coupling between the fold-up hitch of the transport cart and the THS<sup>™</sup> coupling device under the incubator is properly secured before use, to avoid all risks of disconnection between the patient and the life support medical equipment and disconnection of the transport cart. If the red part on the stem of the quick release button is visible, it indicates that the system's locking mechanism is not properly secured.



## WARNING – General Warning

- **Do not perform** safety checks on Technimount products, before receiving proper training.
- Perform the safety checks, as described in this operating guide. Failing to follow the recommended guidelines could cause premature damage to the product.



#### CAUTION – Safe Handling and Operation

- **Do not fasten** or unfasten a gas cylinder on the cart during transfers to avoid risks of damage, equipment falling or injuries to the patients or clinical staff. Always wait until the cart is immobilized before manipulating the straps. This mounting system was designed to transport type D-M15 and type E-M24 gas cylinders during intrahospital transfers.
- **Do not use** extension cables. If needed, use the provided power cords to power the medical equipment on the cart.
- **Do not use** the fold-up hitch as a foot rest. Always ensure the fold-up hitch is attached in it's clip when the cart is detached from the incubator or when stored. When down, the fold-up hitch could cause tripping or tipping hazards.
- Always slow the descent of the fold-up hitch when lowering to align with the THS<sup>™</sup> coupling device. Lowering the fold-up hitch too fast or past the alignment point could cause risks of misalignment between the parts or damage the product.
- Always ensure that the UPS unit is disconnected and rolled onto the cable management hook, once the unit has been fully charged and/or before moving the cart.
- Always ensure that the braking system is applied to all four (4) dual wheel swivel casters when the THS Neonatal Cart is immobilized or not being used, to avoid tipping incidents.
- One (1) person is required to safely move the cart and two (2), to safely move the cart and incubator when connected. For transfers with a patient, always refer to and follow the hospital's transfer protocols.
- Improper use of the Technimount product may damage the device or cause injury to the patients or clinical staff.
- If any serious incident occurs with the mounting solution, immediately stop using the product, report this incident to Technical Support at technicalsupport@technimount.com and the applicable regulatory agency.





## CAUTION – Safe Practice

- Always ensure that the quick release mechanism of the fold-up hitch is properly engaged and functional before use.
- Always ensure that the locking mechanisms of the support brackets of all the medical equipment installed onto the rail system and on the cart's surfaces are engaged and functional before use.
- Always pay close attention to the condition of the four (4) brakes and the quick release mechanism of the fold-up hitch, to prevent undue risk to the system, patients, and clinical staff. Follow the recommended maintenance plan and its guidelines, as described in this user manual and operation guide.



### CAUTION – Working Load/Load Balance

**Do not overload** the cart to avoid tipping incidents or risks of collapsing. The total Safe Working Load (SWL) is 136.1 kg (300 lb).

- **Do not overload** the top shelf and UPS protector/shelf. The maximum weight capacity is 27.22 kg (60 lb), per shelf.
- **Do not overload** the UPS shelf (Uninterruptible Power Supply). The maximum weight capacity is 68.04 kg (150 lb).
- Do not overload the horizontal rails. The maximum weight capacity is 18.14 kg (40 lb), per rail.
- Do not overload the IV poles:
  - The maximum weight capacity for the top part of the IV pole is 4.5 L (160 oz liq.), per pole.
  - The maximum weight capacity for the bottom part of the IV pole is 9.07 kg (20 lb), per pole.



## CAUTION – Follow the Instruction for Use

- Always read and abide by all the safety guidelines identified, as well as follow instructions provided within this document.
- Refer to the incubator's user manual for safety precautions and user instructions for the safe use of the Draeger Babyleo<sup>®</sup> TN500 incubator.
- This cart may contain optional medical equipment. Refer the user manual of all the medical equipment used with the THS Neonatal Cart for the safety guidelines and user instructions for the safe use of each device.



## 2. THS Neonatal Cart Orientation Diagram

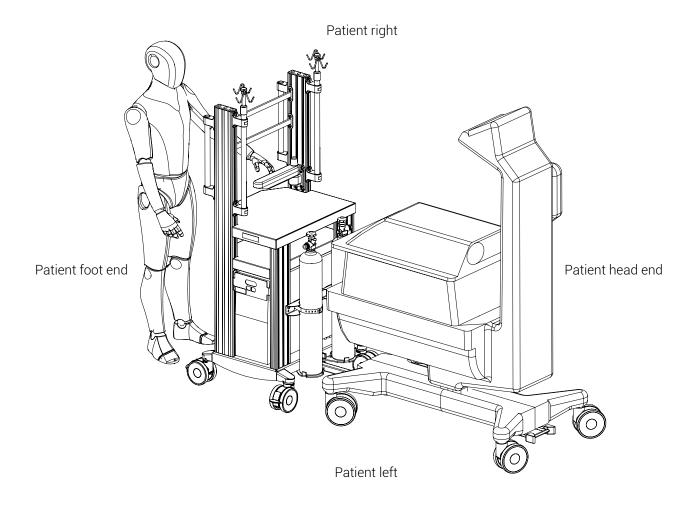


Figure 1 : THS Neonatal Cart orientation diagram, illustrated with the Babyleo TN500 incubator



## 3. Operate the THS Neonatal Cart

This Operating Guide is used to help clinical staff effectively use the THS Neonatal Cart, to transport the Draeger Babyleo® TN500 incubator, as well the multiple medical devices that are essential to patient care during intrahospital transfers. For detailed product information that is not user related, refer to your supervisor or the user manual when required.

- **NOTE:** Always perform the Safety checks **before** using the THS Neonatal Cart. Refer to the « Daily Safety Checks » on page 15 before each use.
- **NOTE:** Technimount continually seeks advancements in product design and quality. While this Operating Guide contains the most updated product information available at the time of printing, it may contain minor differences from the current version. For more information, please contact Customer Service at customerservice@technimount.com.

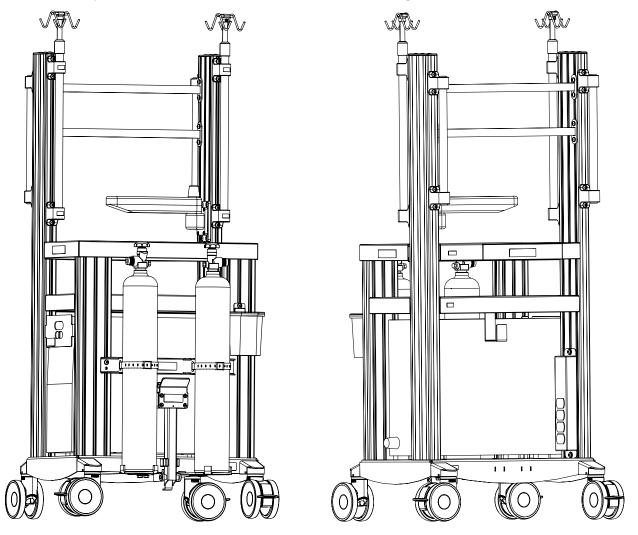


Figure 2 : THS Neonatal Cart illustrated with optional accessories



## 3.1. Install the THS Neonatal Cart on the Babyleo Incubator



### WARNING - Hand Crush/Pinch Point

Keep fingers away from the extremity of the fold-up hitch, it's clip and quick release mechanism during coupling operations. The mobile parts can represent a risk of pinching.



## <mark>WARNING</mark> – Risk of Injury

Always ensure that the coupling between the fold-up hitch of the transport cart and the THS<sup>™</sup> coupling device under the incubator is properly secured before use, to avoid all risks of disconnection between the patient and the life support medical equipment and disconnection of the transport cart. If the red part on the stem of the quick release button is visible, it indicates that the system's locking mechanism is not properly secured.



## CAUTION – Safe Handling and Operation

One (1) person is required to safely move the cart and two (2), to safely move the cart and incubator when connected. For transfers with a patient, always refer to and follow the hospital's transfer protocols.



## CAUTION – Safe Practice

Always ensure that the coupling between the fold-up hitch of the transport cart and the THS<sup>™</sup> coupling device under the incubator is properly secured before use. If the red part on the stem of the quick release button is visible, it indicates that the system's locking mechanism is not properly secured. An incorrect coupling could cause the transport cart or medical devices to disconnect.

1. If required, unplug the UPS power cable from the outlet, wind the cord and hang it on the cable management hook (Figure 3).

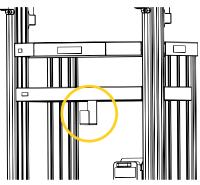


Figure 3 : Location of the cable management hook

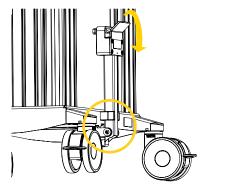
- 2. If required, disengage the braking system on all four (4) dual wheel swivel casters of the THS Neonatal Cart.
- 3. If required, disengage the four (4) locking brakes of the incubator, then engage the directional castor to facilitate straight movements.



4. Lower the fold-up hitch using your foot to free it from its clip (Figure 4 A), then pivot the arm downwards until it has reached its final position (Figure 4 B).

(B)





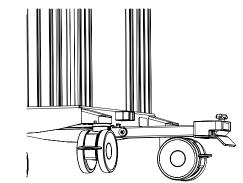


Figure 4 : Pivoting the fold-up hitch

- 5. Move to the side of the cart, then align the fold-up hitch with the THS coupling device located under the incubator (Figure 5 A).
- 6. Pull the cart towards the incubator until the THS coupling device is inserted and fully secured in the foldup hitch locking mechanism (Figure 5 B).

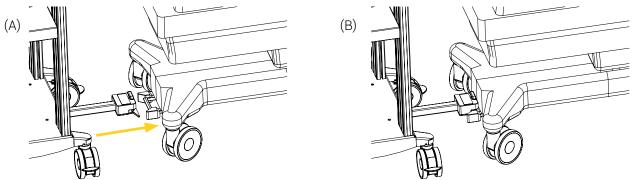


Figure 5 : Installation of the cart on the incubator

7. Ensure that coupling between the fold-up hitch of the transport cart and the THS coupling device under the incubator is properly secured (Figure 6).

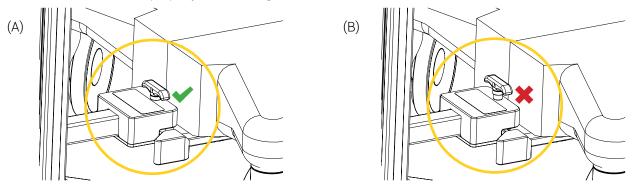


Figure 6 : Cart installed on the incubator



8. If the cart is not immediately used for transport, apply the brakes on all four (4) dual wheel swivel casters of the cart.

The installation of the THS Neonatal Cart on the incubator is completed.

### 3.2. Remove the THS Neonatal Cart from the Babyleo Incubator



### WARNING - Hand Crush/Pinch Point

Keep fingers away from the extremity of the fold-up hitch, it's clip and quick release mechanism during coupling operations. The mobile parts can represent a risk of pinching.



## CAUTION – Safe Handling and Operation

One (1) person is required to safely move the cart and two (2), to safely move the cart and incubator when connected. For transfers with a patient, always refer to and follow the hospital's transfer protocols.

- 1. If required, disengage the braking system on all four (4) dual wheel swivel casters of the THS Neonatal Cart.
- 2. Pull and maintain the knob of the fold-up hitch quick release mechanism to release the THS coupling device (Figure 7).

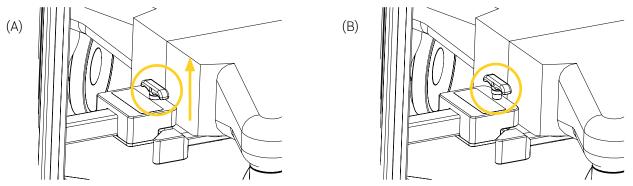


Figure 7 : Quick release mechanism



3. Push the cart away from the incubator until the THS coupling device is fully removed from the fold-up hitch locking mechanism, while simultaneously retaining the knob of the quick release mechanism of the fold-up hitch lifted (Figure 8).

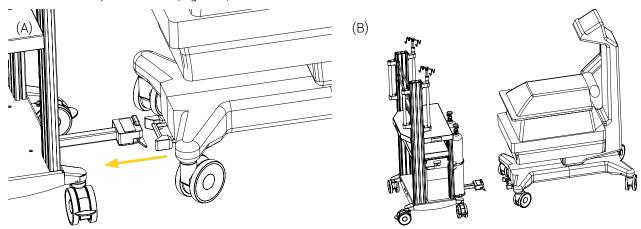


Figure 8 : Removal of the cart from the incubator

4. Pivot the fold-up arm upwards until it has reached its final position, then press on the arm to insert and secure the arm in its clip using your foot (Figure 9).

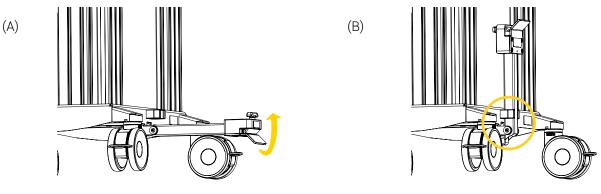


Figure 9 : Pivoting the fold-up hitch

5. Apply the brakes on all four (4) dual wheel swivel casters of the cart.

The removal of the THS Neonatal Cart from the incubator is completed.



#### 3.3. Install a Type D-M15 and Type E-M24 Gas Cylinder

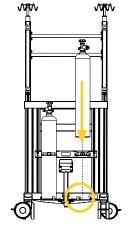
- 1. Apply the brakes on all four (4) dual wheel swivel casters of the cart.
- 2. If required, undo the belt of the gas cylinder mounting bracket.
- 3. Insert and position the gas cylinder on the bottom plate of the mounting bracket (Figure 10).
- 4. Tie and tighten the belt firmly around the gas cylinder using the buckle to secure it.



## CAUTION – Safe Handling and Operation

Always ensure that the gas cylinder is secured on the cart before moving the system to avoid risks of damage, equipment falling or injuries to the patients or clinical staff.

(A)



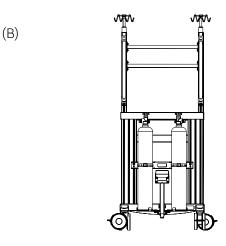


Figure 10 : Installation of the gas cylinder on the mounting bracket

5. If required, repeat steps 1 to 4 to install a second gas cylinder on the mounting bracket.

The installation of the gas cylinder on the mounting bracket is completed.

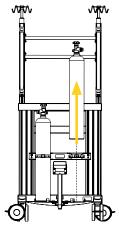


#### 3.4. Remove a Type D-M15 and Type E-M24 Gas Cylinder

- 1. Apply the brakes on all four (4) dual wheel swivel casters of the cart
- 2. Undo the belt of the gas cylinder mounting bracket.
- 3. Lift and remove the gas cylinder from the mounting bracket (Figure 11 A), then set it aside.
- 4. If required, repeat steps 1 to 3 to remove a second gas cylinder from the mounting bracket (Figure 11 B).

(B)





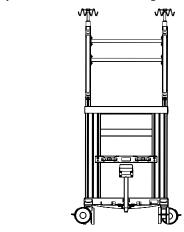


Figure 11 : Removal of the gas cylinder from the mounting bracket

Le removal of the gas cylinder from the mounting bracket is completed.

## 3.5. Install a Serres Suction Canister (Optional)

- 1. Insert the built-in bracket of the Serres suction canister in the support plate, until it has reached the bottom of the support plate (Figure 12).
- 2. Move the suction canister up and down to ensure it is correctly installed in the support plate.

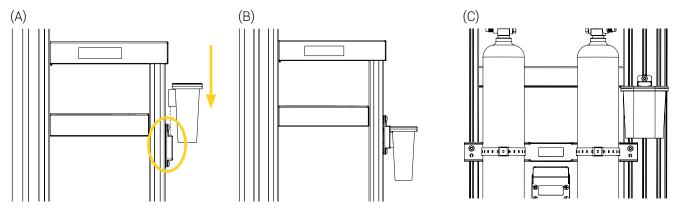


Figure 12 : Installation of the Serres suction canister (side and front of the cart illustrated)

The installation of the Serres suction canister in the support plate is completed.



## 3.6. Removal of a Serres Suction Canister (Optional)

Pull on the suction canister upwards to remove it from the support plate (Figure 13).

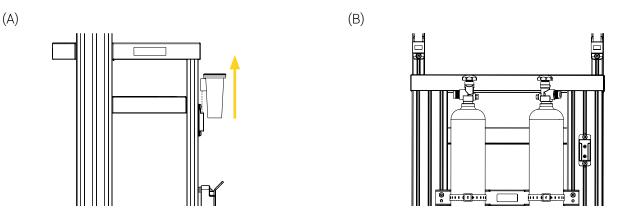


Figure 13 : Removal of the Serres suction canister

The removal of the Serres suction canister is completed.

### 3.7. Operate the IV Pole

If required, the height IV poles can be adjusted to conform to the specific positioning needs of the equipment. Before adding the IV bags, refer to the safety measures and technical specifications for precision on the Safe Working Load (SWL) of each pole.

- 1. Loosen the collar of the IV pole by turning it a quarter of a turn counterclockwise, then raise or lower the pole according to your needs (Figure 14).
- 2. Tighten the collar.
- 3. If required, repeat steps 1 and 2 to adjust the height of the second IV pole.

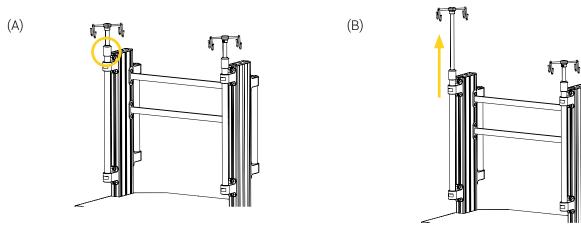


Figure 14 : Height adjustment of the IV pole



## 4. Perform the Daily Safety Checks

Daily safety checks on Technimount products are recommended to keep them in good condition and avoid failure or injury to the patient or clinical staff. Clinical staff should perform the daily safety checks at the beginning of each work shift

**NOTE:** Always keep records of your all maintenance activities and immediately remove defective or expired products from your inventory.

Please contact Technical Support at techsupport@technimount.com for replacement parts or repair related issues.

#### 4.1. Required Tools

- Clean dry cloth

#### 4.2. Daily Safety Checks

Refer to the illustrated inspection points on the transport cart (Figure 15) and under the incubator (Figure 16), if needed.

**NOTE:** In case of a non-conformity, alert the maintenance supervisor of all non-compliances and immediately cease use.

DAILY SAFETY CHECKS		COMPLIANT	
INSPECTIONS	YES	NO	
THS Neonatal Cart (Figure 15)			
<ul> <li>Visually inspect all the components of the transport cart to ensure there is no damage or chemical attack, that the hardware is in good condition and there are no loose screws.</li> </ul>			
<ul> <li>Visually inspect all the components of the vertical and horizontal rails to ensure there is no damage or chemical attack, that the hardware is in good condition and there are no loose screws.</li> </ul>			
- Visually inspect the interior cavities of each rail and make sure there are no lodged particles. If so, immediately remove using a clean dry cloth.			
- Visually inspect handles to ensure there is no damage or chemical attack, that the hardware is in good condition and there are no loose screws.			
- Visually inspect the interior cavities of the breaking system of each dual wheel swivel caster and make sure there are no lodged particles. If so, immediately remove using a clean dry cloth.			
<ul> <li>Apply/remove the brake of each dual wheel swivel caster and make sure of proper functioning. The mechanism should lock and unlock without resistance.</li> </ul>			
Fold-Up Hitch and Clip (Figure 15)			
<ul> <li>Visually inspect all the components of the fold-up hitch and clip to ensure there is no damage or chemical attack, that the hardware is in good condition and there are no loose screws.</li> </ul>			



AILY SAFETY CHECKS		COMPLIANT	
INSPECTIONS	YES	NO	
- Insert/remove the fold-up hitch from the clip and make sure of proper functioning. When the arm is lifted, it should easily insert and lock itself in the clip without resistance.			
<ul> <li>Insert/remove the transport cart from the incubator and make sure of proper functioning.</li> <li>The cart should be easily attached and locked in position after the click sound of the locking mechanism and easily removed when using the quick release mechanism.</li> </ul>			
THS coupling device (Figure 16)			
<ul> <li>Visually inspect all the components of the THS coupling device to ensure there is no damage or chemical attack, that the hardware is in good condition and there are no loose screws.</li> </ul>			
<ul> <li>Visually inspect the guides of the THS coupling device under the incubator to ensure there is no damage or chemical attack, that the hardware is in good condition and there are no loose screws.</li> </ul>			
IV Poles (Figure 15)			
<ul> <li>Visually inspect all the components of the IV pole to ensure there is no damage or chemical attack, that the hardware is in good condition and there are no loose screws.</li> </ul>			
- Ensure the collars of each pole are tightened in their mount. The IV poles should be secured in place.			
Optional Accessories			
<ul> <li>Visually inspect all the components of the optional accessories to ensure there is no damage or chemical attack, that the hardware is in good condition and there are no loose screws. Check,</li> </ul>			
- the gas cylinder mounting bracket			
- the support plate for the Serres suction canister			
- the support plate for the power bar			
- the support plate for the Draeger Mounting System			
- the UPS cable management hook			
- the UPS On-Off switch protective panel			
- the glides under the UPS unit			
- Ensure to perform maintenance on all the medical equipment that may be installed on the transport cart, as per the manufacturer recommendations.			
Daily Safety Checks completed on (dd/mm/yyyy), by			
Comments and observations:			



DAILY SAFETY CHECKS	COMPLIANT	
INSPECTIONS	YES	NO



#### 4.3. Illustrated Inspection Points

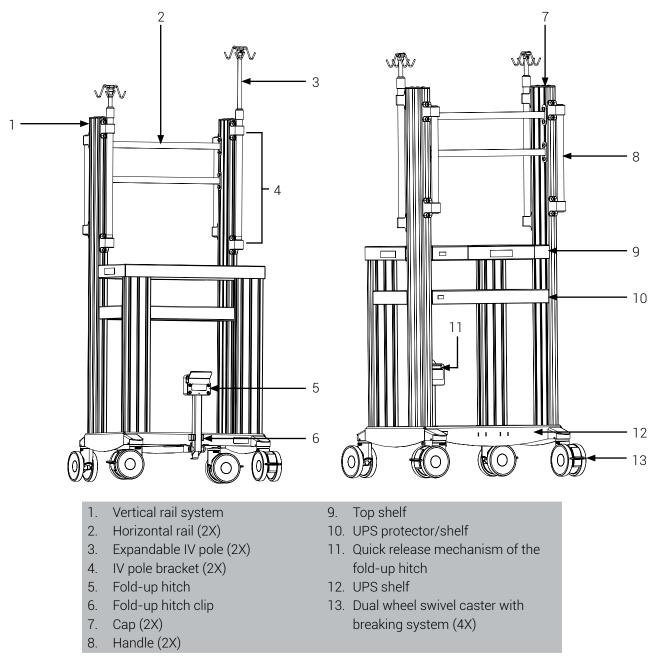


Figure 15 : Inspection points of the transport cart



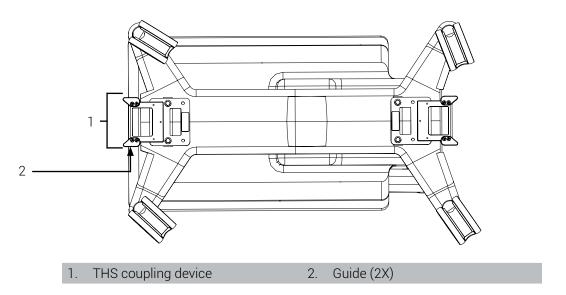


Figure 16 : Inspection points under the incubator (two (2) THS coupling devices illustrated)

# TECHNIMOUNT MEDICAL®

At Technimount Medical Inc., we understand that healthcare professionals need equipment that make their everyday practice easier. We design and develop quality solutions which are flexible and easy to use, allowing them to focus on what matters most - patient care.

Technimount Medical, an ISO 13485 certified company, creates distinctive products that respond to the ever-evolving healthcare practices. Our Technimount Healthcare System<sup>™</sup> (THS<sup>™</sup>) and Healthcare Essentials product lines enable caregivers to move efficiently and safely all the medical devices needed to successfully treat their patients, wherever they are inside the hospital or remotely via telemedicine systems.



TECHNIMOUNT MEDICAL INC. 3770 Jean Marchand Street, Suite 100-B Quebec (Quebec) G2C 1Y6 Canada T + 1 581 700-6583 TF + 1 888 521-0871 (North America)



technimount.com