

ENDOSCOPY CART

USER MANUAL





MAKING HEALTHCARE PRACTICES MORE EFFICIENT



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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.

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Table of Contents

Copyrights	ii
Trademarks	ii
Contact Information	ii
1. General Mentions and Considerations	5
1.1. Intended Use	5
1.2. User Competency	5
1.3. Warranties	б
	б
1.3.2. Limited Warranty	б
1.3.3. International Warranty Clause	б
1.3.4. User Liability	б
1.4. Claims	7
1.4.1. Damaged or Defective Merchandise	7
	7
1.4.3. Return of Material Authorization (RMA)	8
	8
2. General Safety Guidelines	9
2.1. Symbols and Definitions	9
2.2. Labels	10
	10
2.2.2. Manufacturing Label	11
2.3. Safety Measures	12
3. Technical Specifications	14
4. Endoscopy Cart Orientation Diagrams	16
5. Endoscopy Cart Illustrated Parts	17
6. Operate the Endoscopy Cart	19
6.1. Adjust the Pole Height of the Endoscope Mounting Bracket	19
6.2. Operate the Articulating Arm	20
6.3. Operate the Keyboard Tray	22
6.4. Operate the Hinged Door	23
6.5. Operate the Drawer	24
6.6. Install a Type D/M15 or Type E/M24 Gas Cylinder	25



6.7. Remove the Type D/M15 or Type E/M24 Gas Cylinder	25
6.8. Install the Water Bottle	
6.9. Remove the Water Bottle	
7. Reposition the Endoscopy Cart Components Before it is Moved	27
Annex I Clinical Staff Skills Assessment	31
Annex II Unpack the Endoscopy Cart	33
Annex III Prepare the Endoscopy Cart	35
Required Installation Time	
Required Tools	
Adjust the Transport Handle	
Place the Medical Devices on the Shelves	
Install the Type D/M15 or type E/M24 Gas Cylinder Mounting Bracket	
Install the Water bottle Mounting Brackets	
To Install the Bracket on a Shelf	41
To Install the Bracket on the Cable Management Panel	41
Install the Monitor	
Install the Endoscopes	
Install the Keyboard	
Annex IV Maintenance	49
Maintenance Frequency	
Required Tools	
Tested and Approved Cleaning Solutions	
Maintenance Plan	51
Illustrated Inspection Points	
Annex V Replacement Parts/Kits	55



1. General Mentions and Considerations

The Endoscopy Cart user manual includes detailed product information, standards and guidelines to assist the administrator/manager/supervisor and biomedical technician (or equivalent) with the unpacking, assembling (when indicated) and maintenance of the Technimount product. It also includes specific user-related information to assist trained clinical staff with effectively operating the cart.

Please read the user manual thoroughly to fully assess, comprehend, then relay its content to clinical staff during training, to warn them of any potential danger of its abuse, how to safely use the product and provide a safe environment for patients as well as themselves. Your existing protocols should be updated to include the Technimount product(s) standards, guidelines, requirements and safety recommendations included within this documentation. The user manual should remain available to users when needed and relayed if the product is subsequently sold.

- **NOTE :** Technimount continually seeks advancements in product design and quality. While the user manual contains the most updated product information available at the time of printing, it may contain minor differences from the current version, including image references. For more information, please contact Technical Support at techsupport@technimount.com.
- **NOTE :** Technimount reserves the right to change part numbers and products without notice. Please contact Customer Service at customerservice@technimount.com to ensure product options and availability.

1.1. Intended Use

The Endoscopy Cart is designed to aid trained clinical staff secure and move the PENTAX Medical endoscopes and the multiple medical devices and accessories that are essential to patient care in hospitals and clinics.

1.2. User Competency

To safely operate the Endoscopy Cart, clinical staff must have the required skill level. Training should be given to clinical staff, taking in account the skill level that is necessary to comply with their function and level of interaction with the cart:

- **Proficient (trained clinical staff):** Has received the required training, is sufficiently knowledgeable to safely operate the product and have passed the skills assessment (refer to the « Clinical Staff Skills Assessment » section on page 31).
 - **NOTE :** Any member of the clinical staff who has not received the required training and lacks the knowledge needed to safely operate the cart must not use the product.
- **Expert (administrator/manager/supervisor):** Has in-depth knowledge and product comprehension, and is familiar with standards and guidelines. Skilled to train clinical staff on how to safely use the product.
- Advanced (biomedical technician or equivalent): Has extensive mechanical experience. Skilled to perform the unpacking, assembly, safety checks and condition-based maintenance procedures as detailed in the « Maintenance » section on page 49, basic troubleshooting, upgrade procedures and replacement procedures.



1.3. Warranties

1.3.1. Warranty Policy

This statement constitutes Technimount's entire warranty policy with regards to Technimount products. Technimount makes no other warranty or representation, neither expressed nor implied, except as stated herein. There is no warranty of merchantability or warranty of fitness for any particular purpose. Under no circumstances will Technimount be held liable hereunder for incidental or consequential damages, arising from or in any manner, related to sales or use of any such product.

Technimount Medical Inc. guarantees to the original "Purchaser" of the "Product" with which this "Limited warranty" is included, that the product will be free from "Defects" in workmanship and materials under normal use for a "Warranty period" of one (1) year from the product purchase date by the purchaser. During the warranty period, the product will be repaired or replaced according to the "Limited warranty" without charge to the purchaser for parts or labor. The parts and product may be repaired or replaced with new or refurbished parts or products. Herein this Limited Warranty, "Refurbished" means parts and products which have been returned to the factory, specifically. If the product is repaired or replaced within the warranty period, the greater of the remaining warranty period will apply, or three (3) months from the date of repair or replacement. If the product is repaired or replaced after the warranty period has expired, the warranty period for the repair or replacement will expire three (3) months after the repair or replacement date.

1.3.2. Limited Warranty

The limited warranty does not apply to normal wear that could result from normal use. It does not apply when the product or any of its components have been disassembled or repaired by someone not authorized by "Technimount". It does not cover repair or the replacement of any product or part thereof damaged by neglect, misuse, moisture, liquids, exposure to heat, accidents, abuse, and non-compliance with the instructions for installation and use provided with the product. The limited warranty does not cover physical damage to the surface of the product. The decision to repair, replace or refuse the coverage is final and at the sole discretion of Technimount, without any compensation or obligation from Technimount. The product defined as a "cart" is specifically designed to secure and move the PENTAX Medical endoscopes and the multiple medical devices and accessories, and should only be used to fill this requirement. Any other use will void the warranty and Technimount shall not be held liable on any claim if the product has been modified or adapted for use.

1.3.3. International Warranty Clause

This warranty abides by the Canadian domestic policy. Warranty outside Canada may vary by country. Please contact Customer Service at customerservice@technimount.com for more information.

1.3.4. User Liability

The purchaser and administrator are responsible to validate regulations and standards for safety in their region, to comply with applicable safety regulations. Technimount is not responsible to inform the purchaser or the administrator of any applicable legislation for safety in their area.

The administrator is responsible for providing proper training to any personnel who will install, operate and perform maintenance on Technimount products.



1.4. Claims

1.4.1. Damaged or Defective Merchandise

ICC Regulations require that claims for damaged merchandise must be made with the carrier within fifteen (15) days of the reception date. **Do not** accept damaged merchandise unless such damage is noted on the delivery receipt at the time of reception. Upon prompt notification, Technimount will file a freight claim with the appropriate carrier for damages incurred. Claims are limited in amount to the actual replacement cost. If the claim has not been received by Technimount within the fifteen (15) day period following the date of delivery, or the damage was not noted on the delivery receipt at the time of receipt, the customer will be responsible for the full payment of the original invoice.

Claims for any short or broken merchandise must be made within thirty (30) days of invoicing. For details, refer to the claim process or contact Customer Service at customerservice@technimount.com.

1.4.2. Return Policy

Technimount products may be returned up to sixty (60) days from the reception date, if:

- The received product does not match what was originally ordered.
- The product does not meet the Technimount technical sheet specifications.
- The product is not compatible with the system on which it was intended to be installed on.

To return a Technimount product,

- A Return of Merchandise Authorized (RMA) must be requested and approved by Technimount prior to returning the product.
- Products must be returned undamaged and in its original packaging, appropriately identified with the approved RMA number. Returns will not be approved on a modified or damaged item.
- Charges may apply if the package received is damaged or items are missing.
- Purchaser is responsible for a restocking fee (refer to Table 1).

Table 1: Restocking fees

RESTOCKING FEES	
Prior to thirty (30) days	10%
Prior to forty-five (45) days	25%
Prior to sixty (60) days	30%

For any manufacturing defect, refer to the conditions within the warranty policy or contact Customer Service at customerservice@technimount.com for additional information.



1.4.3. Return of Material Authorization (RMA)

The Technimount Customer Service department is responsible for all merchandise returns and will provide a Return of Merchandise Authorization (RMA) number, upon approval. The RMA must be printed and placed on the returned merchandise. Technimount reserves the right to charge shipping and restocking fees (refer to Table 1 on page 7) for the returned items. Special, modified, or discontinued items are not subject to returns.

1.4.4. Claim Process

Upon reception of the returned merchandise, a thorough inspection will be performed. If the merchandise is compliant with the return policy or it is found that the product is defective, Technimount will take corrective actions and close the claim. If, however, it is found that the product is not defective, but rather misused or abused, the product will not be covered by the warranty. Details of our findings and conclusions will be provided shortly thereafter. To submit a claim, contact Customer Service at customerservice@technimount.com to obtain a Return of Material Authorization (RMA) form and return instructions.



2. General Safety Guidelines

Always read and abide by all the safety guidelines identified within this document. Pictograms, safety symbols and labels are used to alert the user to a potentially hazardous situation, which, if not avoided, may endanger the patients or clinical staff, or damage to the product. This includes the special care necessary for the safe and effective use of the Technimount product to avoid damage that may occur from use or misuse. The terms "Warning" and "Caution" herein carry special meaning and should be carefully reviewed.

- **WARNING** Indicates a hazardous situation that, if not avoided, could result in death or serious injury, and/or damage the product.
- **CAUTION** Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury, and/or damage the product.

2.1. Symbols and Definitions



WARNING - Do Not Step

Indicates an area where there is potential risk of tipping if the user steps, stands, sits or rests his/her foot that could result in serious injuries to the patients or clinical staff, or damage to the product.



WARNING – Risk of Injury

Indicates when a misuse of the Technimount product could result in injuries to the patients or clinical staff, or damage to the product.



CAUTION – Safe Practice

Alerts the reader to pay special attention to the recommendations and methods outlining how to safely operate the product to minimize risks to the patients, clinical staff and the product.



CAUTION – Safe Handling and Operation

Alerts the reader to pay special attention to the recommendations for safe use of the product, and of potentially hazardous situations that could result in minor injuries to the patients or clinical staff. This includes the special care necessary for the safe and effective use of the product to avoid damage that may occur from use or misuse.



CAUTION – Safe Working Load (SWL)/Load Balance

Indicates the total maximum charge for a safe use of the product.



CAUTION – Follow Instructions for Use

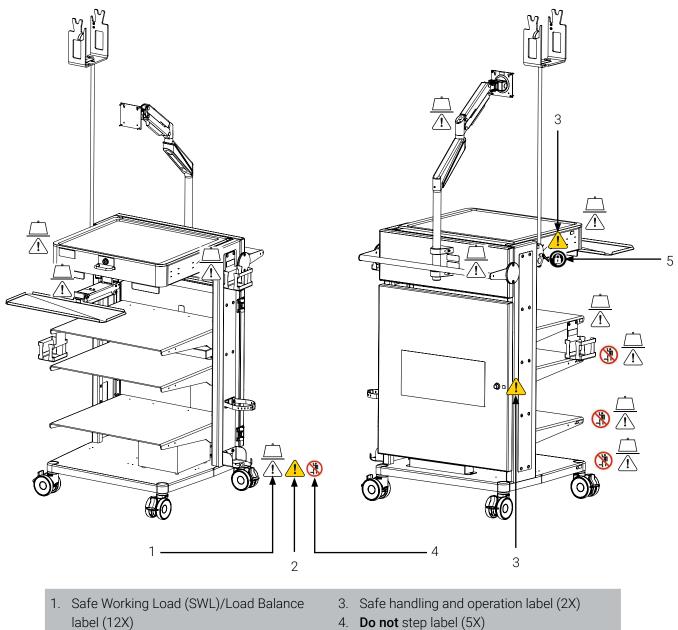
Call for action. Reminds the reader to consult the user manual for information.



2.2. Labels

Labelling on the surface of the Technimount product, quickly identify potential risks and provides information to the user. Safety labels (Figure 1) and manufacturing labels, including the serial numbers and safe working loads (Figure 2), can be seen on the Technimount product.

2.2.1. Safety Labels



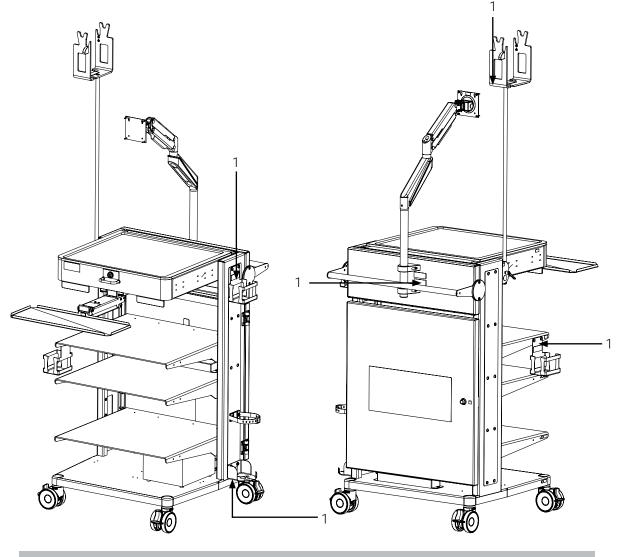
5. Turn to lock identification label

Figure 1: Location of the safety labels

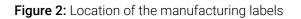
2. Gas type label



2.2.2. Manufacturing Label



1. Manufacturing label (5X)





2.3. Safety Measures

Carefully read all the safety measures herein before operating the Technimount product, relay to clinical staff during training, and include in your existing protocols.

More specific safety measures intended for biomedical technicians (or equivalent) relating to the safety checks and conditioned-based maintenance can be found in the « Maintenance » section on page 49.



WARNING - Do Not Step

Do not step, stand, sit or rest foot on the Endoscopy Cart to avoid risks of tipping to avoid risks of damage, equipment falling, or injuries to the patients or clinical staff.



WARNING – Risk of Injury

- Do not abruptly stop or turn the cart during transfers to avoid risks of damage, equipment falling, or injuries to the patients or clinical staff. The Endoscopy Cart was designed in accordance to PENTAX Medical requirements to facilitate access to the medical device ports and connectors, and for cleaning purposes. The medical devices are retained on the cart by the rubber feet under each device and friction on the shelves. Refer to your established internal protocols, as well as the regulations and standards for safety.
- Ensure that the pole of the endoscope mounting bracket is tightly secured when adjusting the height to avoid risks of pinching.
- Always use compatible medical devices and accessories when applicable, to avoid unpredictable functioning resulting injury to the patients or clinical staff. Refer to the « Technical Specifications » section on page 14.
- Improper use of the Technimount product may damage it or cause injury to the patients or clinical staff.
- If any serious incident occurs with the cart, immediately stop using the product, report the incident to Technical Support at technicalsupport@technimount.com and the applicable regulatory agency.



CAUTION – Safe Practice

- Always pay close attention to the condition of the four (4) brakes, to prevent undue risk to the cart, patients, and clinical staff. Follow the recommended maintenance plan and its guidelines, as described in the user manual.
- Practice safely operating the cart until the manipulations have been perfected, before use with patients. Improper use of a Technimount product may damage it or cause injury to the patients or clinical staff.
- Regulations and standards for safety are the sole responsibility of the end user. Ensure that the installation specifications meet the local and regional compliance requirements before use.
- Refer to your established internal protocols and the user documentation provided with each specific medical device for the safety guidelines and safe use.





CAUTION – Safe Handling and Operation

- Always apply the braking system to all four (4) dual wheel swivel casters when the cart is immobilized to prevent undue risk to the cart, patients, and clinical staff.
- Always wait until the cart is immobilized before manipulating the gas cylinder mounting bracket straps. This mounting system was designed to transport type D/M15 or type E/M24 gas cylinders.
- Always ensure that the gas cylinder is secured on the cart before it is moved to avoid risks of damage, equipment falling, or injuries to the patients or clinical staff.
- Always ensure that the components of the Endoscopy Cart are repositioned before moving the cart to prevent undue risk to the cart, patients, and clinical staff. Refer to the « Reposition the Endoscopy Cart Components Before it is Moved » section on page 27, if needed.
- The hinged door should only be used to gain access to the isolation transformer, video processor cables and/or for maintenance purposes.
- Always pay close attention not to wedge the power cords or tubing during the installation or the removal of the medical devices and/or accessories. Refer to your established internal protocols for the safety guidelines and safe use with the cart.

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 233 lb (106 kg). Refer to the « Technical Specifications » section on page 14 for the SWL of the cart components.



CAUTION – Follow the Instruction for Use

- Always read and abide by all the safety guidelines identified, as well as follow instructions provided within the user manual of the Technimount product.
- The Endoscopy Cart may contain optional or equivalent medical equipment and accessories. Refer to their specific user documentation and to the PENTAX Medical user documentation for the safety guidelines and safe use.



3. Technical Specifications

Product Name	Endoscopy Cart		
Description	Medical cart designed to aid trained clinical staff secure and move the PENTAX® Medical endoscopes and the multiple medical devices and accessories that are essential to patient care		
Product Code	 MED-FB4ISSEHC: Endoscopy Cart MED-FB4ISSEHC-IS: Endoscopy Cart with isolation transformer 		
Operating Environment	Hospital/Clinic		
Compliance	 Tested in compliance with IEC 60601-1 (applicable sections) Tested in compliance with IEC 60601-1-2 EMC/EMI (applicable sections of configurations that have an installed isolation transformer) 		
Expected Service Life	5 years		
Compatible Mounting System	 VESA plate 100 mm X 100 mm VESA plate 75 mm X 75 mm 		
Compatible Medical Devices/ Accessories or their Equivalent	 PENTAX® Medical endoscopes Sony® 4K 2D LCD Monitor model LMD-X3200MD, AdLink® 4K 2D LCD Monitor model ASM32UHB-PE PENTAX® Medical processors, including the EPK-i8020c video processor CO₂ insufflator model EGA-501P Irrigation pump model EGA-500P NCU-7000 navigation control unit Type D/M15 or type E/M24 gas cylinder (exclusively) Sony® printer model UP-27MD 4-outlet, medical grade power bar with surge protection 		
Dimensions (W X D X H)	29 in. X 32.5 in. X 68 in. (74 cm X 83 cm X 173 cm), w/o medical devices or accessories		
Weight	253 lb (115 kg), w/o medical devices or accessories		
Composition	 Endoscopy Cart chassis, including bottom surface: powder coated steel Endoscope mounting bracket: anodized aluminum and powder coated aluminum Monitor mounting bracket: powder coated aluminum Work surface: powder coated aluminum Drawer: powder coated steel Handle: powder coated aluminum, powder coated steel and stainless steel Keyboard tray: powder coated steel Mid shelves: powder coated aluminum Water bottle mounting bracket: powder coated steel Type D/M15 or type E/M24 gas cylinder mounting bracket: powder coated steel 4-in. OD (10.16 cm OD) dual wheel swivel caster with braking system: polyamide and polyurethane 		



Total Safe Working Load (SWL)	 Endoscopy Cart: 233 lb (106 kg) Endoscopy Cart components: Work surface: 20 lb (9 kg) Monitor mounting bracket: 35 lb (15.9 kg) Endoscope mounting bracket: 8 lb (3.63 kg) Water bottle mounting bracket: 2.2 lb (1 kg) Drawer: 5 lb (2.3 kg) Keyboard tray: 4.4 lb (2 kg) Mid shelves and bottom surface: 60 lb (27.3 kg), per shelf/surface Gas cylinder mounting bracket: 10 lb (4.5 kg)
Operating Temperature	- 31° F to 113° F (- 35° C to 45° C)
Tested and Approved Cleaning Solutions	 Lavo[®] 12, 10 000 ppm Sodium Hypochlorite TNT-100, 5% Quaternary Ammonium Compound Spectro-Sept, 5% Ethyl Alcohol Spectrol, 5% EDTA salt
Options	 Drawer push lock: LOK-10-DRW Type D/M15 or type E/M24 gas cylinder mounting bracket



4. Endoscopy Cart Orientation Diagrams

NOTE : The orientations referenced herein are from the clinical staff standpoint, when facing the cart.

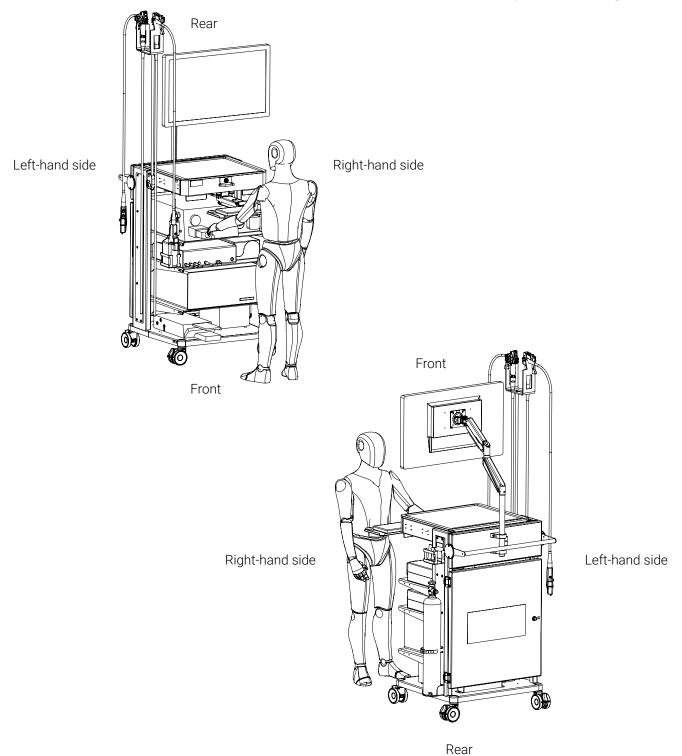
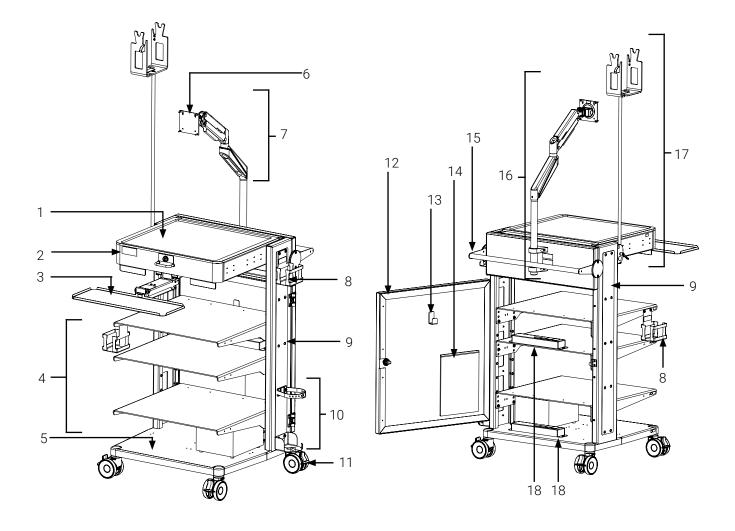


Figure 3: Orientation diagram of the Endoscopy Cart



5. Endoscopy Cart Illustrated Parts

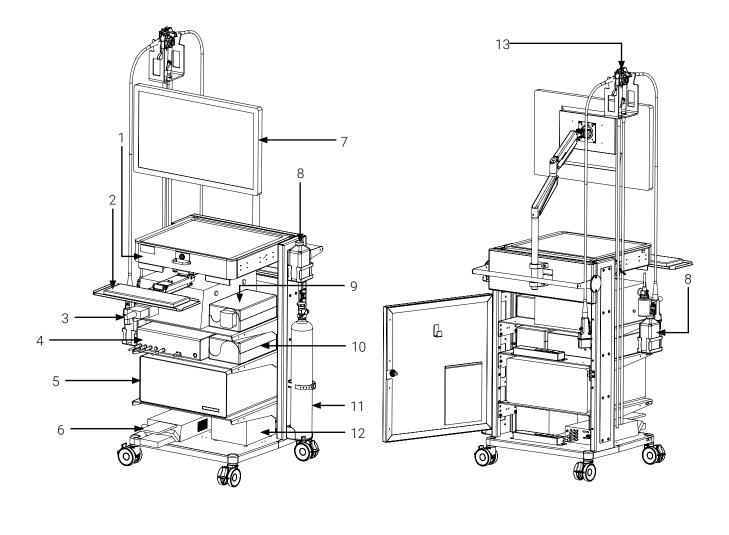


- 1. Work surface
- 2. Drawer
- 3. Keyboard tray
- 4. Mid shelves (3X)
- 5. Bottom surface
- 6. VESA plate
- 7. Articulating arm (monitor mounting bracket)
- 8. Water bottle mounting bracket
- 9. Wire/cable management panel (2X)
- 10. Gas cylinder mounting bracket

- Dual wheel swivel caster with breaking system (4X)
- 12. Hinged door
- 13. Cable management hook
- 14. Pouch with User Manual
- 15. Transport handle
- 16. Monitor mounting bracket
- 17. Endoscope mounting bracket
- 18. Medical grade power bar with surge protection (2X)

Figure 4: Components of the Endoscopy Cart





- 1. Foot switch (inside the drawer)
- 2. Keyboard
- 3. Video processor
- 4. Navigation control unit
- 5. Computer
- 6. Printer
- 7. Monitor

- 8. Water bottle
- 9. Irrigation pump
- 10. CO₂ insufflator
- 11. Type D/M15 or type E/M24 gas cylinder
- 12. Isolation transformer
- 13. Endoscope (2X)

Figure 5: Suggested configuration for the Endoscopy Cart with the medical devices



6. Operate the Endoscopy Cart

The content in this section is intended for clinical staff who are proficient, have received the required training and passed the skills assessment, therefore sufficiently knowledgeable to safely operate the cart.

6.1. Adjust the Pole Height of the Endoscope Mounting Bracket

- 1. Grab and hold the pole of the endoscope mounting bracket, and don't let go until you have completed the adjustment and the pole has been properly secured.
- 2. Rotate the endoscope mounting bracket handle counterclockwise to loosen it (Figure 6).

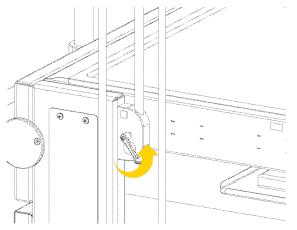


Figure 6: Endoscope mounting bracket handle - Loosen pole

3. Glide the pole up or down to adjust its height to suit the specific positioning needs of the equipment (Figure 7).

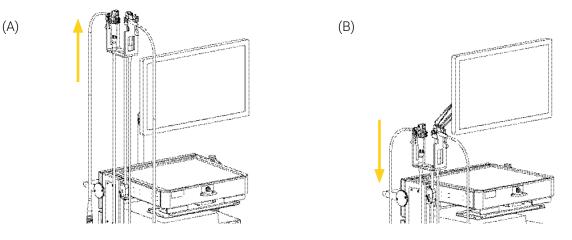


Figure 7: Adjusting the pole height of the endoscope mounting bracket



4. Rotate the handle clockwise to tighten and secure the pole in the mounting bracket (Figure 8).

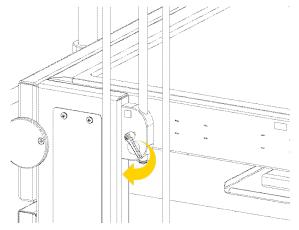


Figure 8: Endoscope mounting bracket handle - Tighten pole

5. Move the endoscope pole up and down a few times to ensure it is properly secured. If the pole does not move after the verification, it is properly secured and you can safely let go of it.

The adjustment of the pole height of the endoscope mounting bracket is complete.

6.2. Operate the Articulating Arm

Move the articulating arm, depending on your specific positioning needs:

- Pull the articulating arm downwards or push it upwards, depending on your needs (Figure 9).

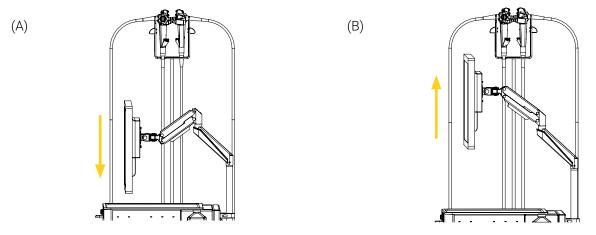


Figure 9: Operating the articulating arm - up and down



- Move the articulating arm from side to side, depending on your needs (Figure 10).

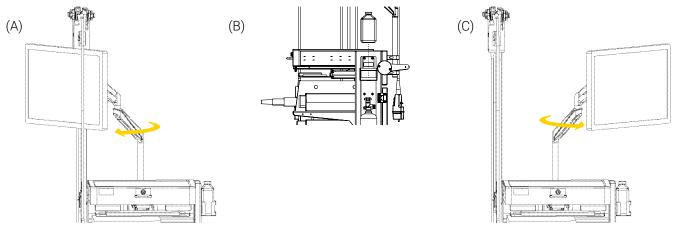
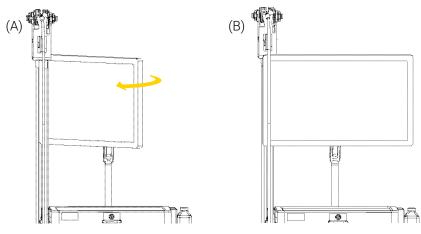
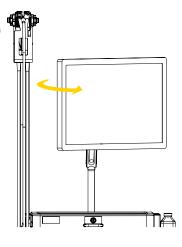


Figure 10: Operating the articulating arm - side to side

- Turn the monitor side to side, depending on your needs (Figure 11).



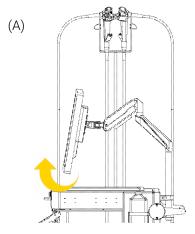


(C)

(C)

Figure 11: Operating the monitor - side to side

- Tilt the monitor up or down, depending on your needs (Figure 12).



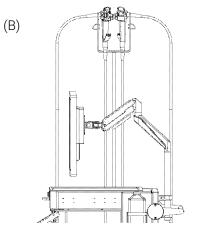
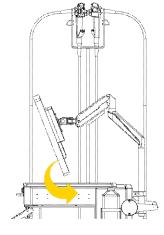


Figure 12: Operating the monitor - up and down





6.3. Operate the Keyboard Tray

(A)

Move the keyboard tray, depending on your specific positioning needs:

- Pull the tray horizontally to retract it or push it horizontally to insert it under the work surface (Figure 13).

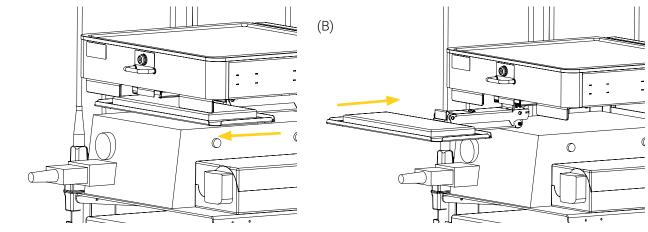


Figure 13: Operating the keyboard tray - in or out

Press and hold the button located at the front of the track (Figure 14 A), then push the front edge of the tray downwards vertically to lower it or pull it upwards vertically to raise it (Figure 14 B and C), depending on your needs. There are five (5) height adjustment positions; two (2) high positions, one (1) neutral position and two (2) low positions.

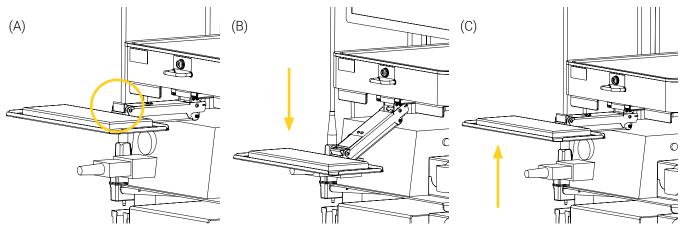


Figure 14: Operating the keyboard tray

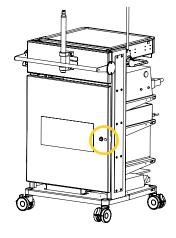


6.4. Operate the Hinged Door

Open or close the hinged door:

- Press the release button to open the door (Figure 15).

(A)



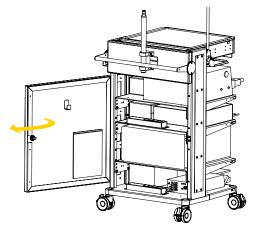


Figure 15: Opening the hinged door

(B)

Close the hinged door and press until properly shut (Figure 16).

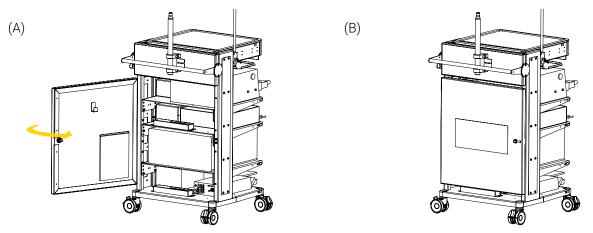


Figure 16: Closing the hinged door



6.5. Operate the Drawer

- 1. Unlock the drawer, if needed.
- 2. Open or close the drawer:
 - Pull the handle horizontally to open the drawer (Figure 17).

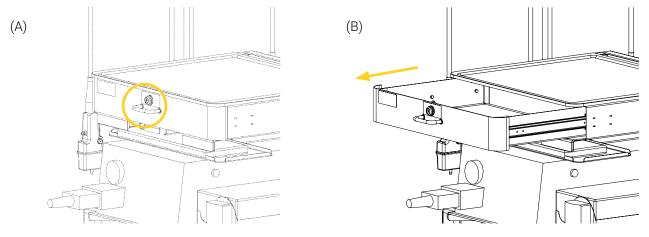
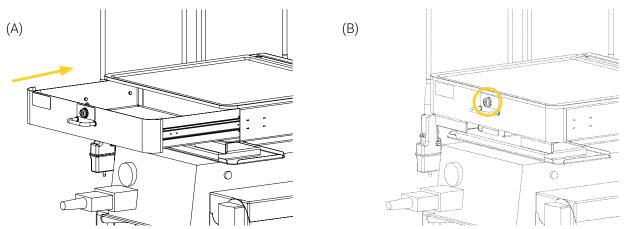
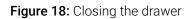


Figure 17: Opening the drawer

- Push the drawer horizontally to close it (Figure 18).
- 3. Lock the drawer, if needed (Figure 18).







6.6. Install a Type D/M15 or Type E/M24 Gas Cylinder

- 1. Undo the belt of the gas cylinder mounting bracket (Figure 19 A), if needed.
- 2. Insert and position the gas cylinder vertically on the bottom plate of the mounting bracket (Figure 19 B).
- 3. Tie and tighten the belt firmly around the gas cylinder using the buckle to secure it (Figure 19 C).

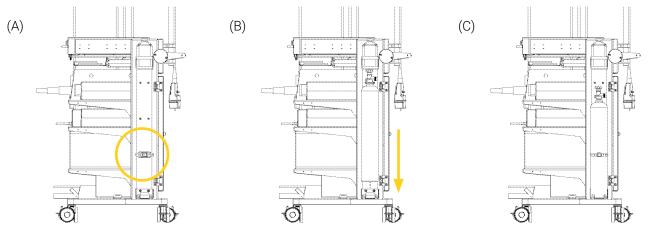


Figure 19: Installation of the gas cylinder in the mounting bracket

The installation of the type D/M15 or type E/M24 gas cylinder in the mounting bracket is completed.

6.7. Remove the Type D/M15 or Type E/M24 Gas Cylinder

- 1. Undo the belt of the gas cylinder mounting bracket (Figure 20 A).
- 2. Lift and remove the gas cylinder from the mounting bracket (Figure 20 B and C).

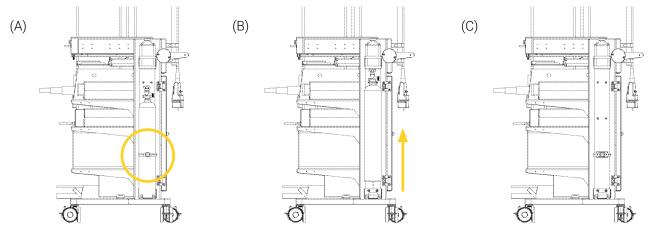


Figure 20: Removal of the gas cylinder from the mounting bracket

The removal of the type D/M15 or type E/M24 gas cylinder from the mounting bracket is completed.



6.8. Install the Water Bottle

1. Insert the water bottle vertically in the mounting bracket (Figure 21).

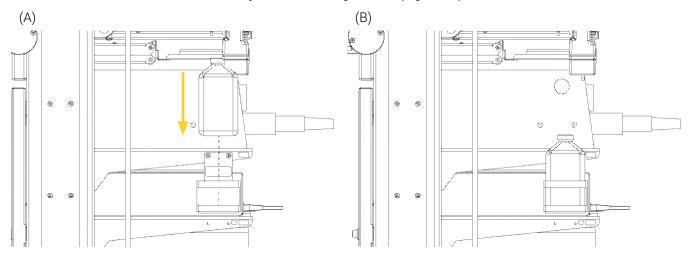


Figure 21: Installation of the water bottle

2. Connect the water bottle to the tubing. Refer to your protocols and the user documentation for the safety guidelines, user instructions, and safe use.

The installation of the water bottle in the mounting bracket is completed.

6.9. Remove the Water Bottle

- 1. Disconnect the water bottle from the tubing. Refer to your protocols and the user documentation for the safety guidelines, user instructions, and safe use.
- 2. Lift and remove the water bottle from the mounting bracket (Figure 22).

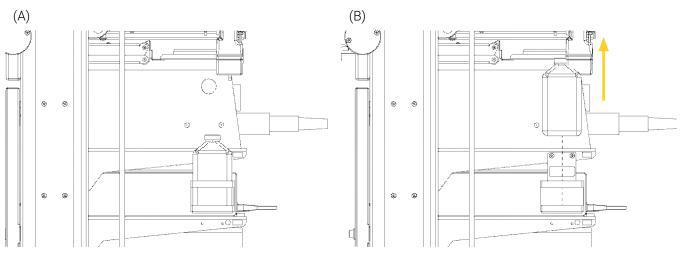


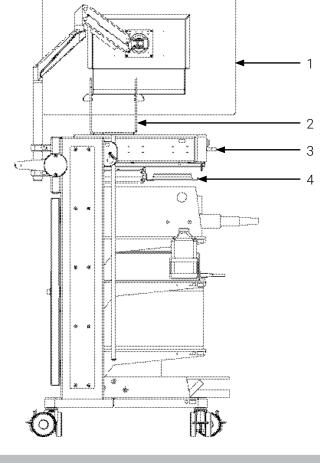
Figure 22: Removal of the Water bottle

The removal of the water bottle from the mounting bracket is completed.



7. Reposition the Endoscopy Cart Components Before it is Moved

- 1. Ensure that the pole of the endoscope mounting bracket is fully lowered and rotated parallel to the work surface (Figure 23). Refer to the adjustment procedure on page 19 if needed.
- 2. Ensure that the monitor is fully lowered and rotated perpendicular to the transport handle (Figure 23). Refer to the operation procedure on page 20 if needed.
- 3. Ensure that the drawer is fully inserted and closed under the work surface (Figure 23). Refer to the operation procedure on page 24 if needed.
- 4. Ensure that the keyboard tray is fully inserted and pushed to the back of the rails, under the work surface (Figure 23). Refer to the operation procedure on page 22 if needed.



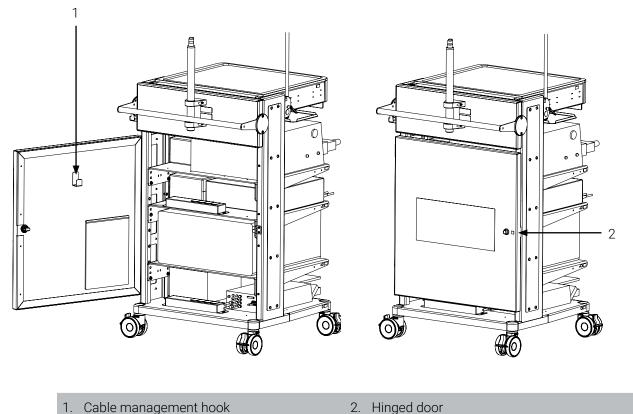
- 1. Monitor lowered and positioned
- 3. Drawer closed
- 2. Pole of the endoscope mounting bracket lowered and positioned

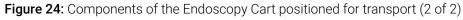
4. Keyboard tray retracted

Figure 23: Components of the Endoscopy Cart positioned for transport (1 of 2)



- 5. Ensure that the cart power cable and the video processor output cables are disconnected from the wall and winded on the cable management hook (Figure 24).
- 6. Ensure that the hinged door is closed (Figure 24). Refer to the operation procedure on page 23 if needed.

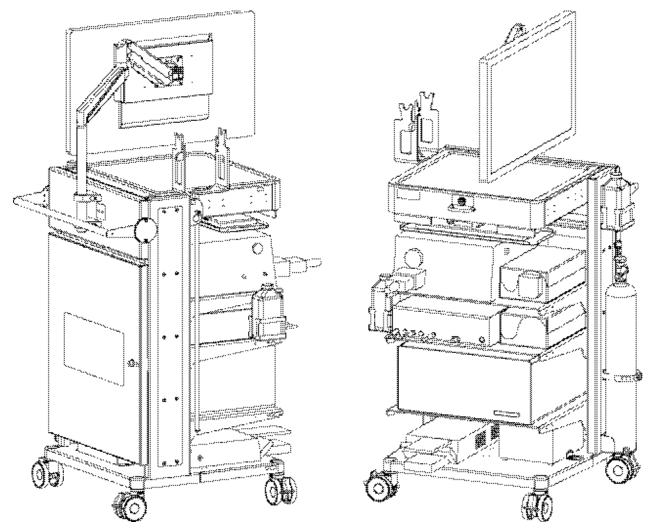






7. Ensure that the medical devices are pushed all the way back on the shelves.

The Endoscopy Cart can now be safely moved (Figure 25), after disengaging the brakes on all four (4) dual wheel swivel casters.









Annex I Clinical Staff Skills Assessment

Following training, a skills assessment should be given to each member of the clinical staff to ensure they have fully comprehended the labelling, warnings and cautions, potential risks, safe practices and proper operating procedures needed to safely and effectively use the cart. Consider adding the following to your internal training protocols.

Trainee name:

Unit:

Assessor name:

Date:

CLINICAL STAFF SKILLS ASSESSMENT			
SKILL CRITERIA	PASSED	FAILED	
Labelling			
Able to identify meaning and potential risks associated with the different safety labels:			
- Safe Working Load (SWL).			
- Gas cylinder type.			
- Safe handling and operation.			
- Do not step.			
- Turn to lock.			
Safety Measures			
- Knows not to abruptly stop or turn the cart during transfers.			
- Knows to, and how to securely tighten the endoscopy mounting bracket pole when the pole height is adjusted.			
- Knows to always use compatible medical devices and accessories.			
- Know to always pay close attention to the condition of the four (4) brakes.			
- Knows to, and how to apply the braking system to all four (4) dual wheel swivel casters every time the cart is immobilized.			
 Knows to wait until the cart is immobilized before manipulating the gas cylinder mounting bracket straps. 			
- Knows to, and how to always ensure that the gas cylinder is secured on the cart before it is moved.			
- Knows to, and how to reposition the cart before it is moved.			
 Knows to use the hinged door only to access to the isolation transformer, the cart power cable, the video processor cables and/or for maintenance purposes. 			



CLIN	IICAL STAFF SKILLS ASSESSMENT		
SKIL	L CRITERIA	PASSED	FAILED
-	Knows to always pay close attention not to wedge the power cords or tubing during the installation or the removal of the medical devices and/or accessories.		
-	Knows not to overload the cart and its components.		
Oper	ation		
-	Able to adjust the height of the endoscopy mounting bracket pole.		
-	Able to operate the articulating arm.		
-	Able to operate the keyboard tray.		
-	Able to operate the hinged door.		
-	Able to operate the drawer.		
-	Able to install and remove the type D/M15 or type E/M24 gas cylinder		
-	Able to install and remove the water bottle.		
-	Has practiced operating the cart, has perfected the manipulations and has acquired the required skill level to safely use with patient.		



Annex II Unpack the Endoscopy Cart

Unpacking should be reserved for biomedical technicians (or equivalent) who have extensive mechanical experience, and advanced skill level.

- 1. Inspect the shipping box(es) for signs of damage before accepting shipment. Take pictures and report them promptly if applicable.
- 2. Move the shipping box(es) to the location of the installation.
- 3. Open the shipping box(es).
- 4. Unpack the box(es) and ensure that all shipping and packaging materials have been properly removed, prior to installation.

NOTE : Keep all packaging material for future use.

- 5. Identify all the components and hardware included for the installation, then set them aside. Refer to the « Prepare the Endoscopy Cart » section on page 35 for the required parts.
- 6. Inspect the items for signs of damage. Take pictures and report them promptly if applicable.





Annex III Prepare the Endoscopy Cart

The content in this section is intended for biomedical technicians (or equivalent) who have extensive mechanical experience, and advanced skill level and have read the « Safety Measures » section on page 12.

Required Installation Time

60 minutes

NOTE : This estimation will vary depending on the biomedical's (or equivalent) proficiency, knowledgeabilty, as well as your product configuration. Subsequent installations and adjustments of the mounting solution should take sensibly the same time, or shorter.

Required Tools

- 4 mm hex key
- Phillips-head screwdriver #3
- Cable ties (optional)

Adjust the Transport Handle

1. Locate and remove the four (4) screws and two (2) cover plates on either side of the transport handle using a Phillips-head screwdriver (Figure 26).

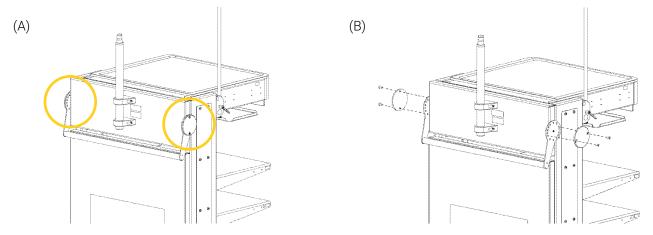


Figure 26: Removal of the transport handle positioning screws and cover plates



2. Tilt the handle upwards, in the position that best suits user needs (Figure 27), then reinstall the cover plates and tighten the screws using a Phillips-head screwdriver. To the minimum, the handle must be tilted enough to open and close the hinged door located below the handle.

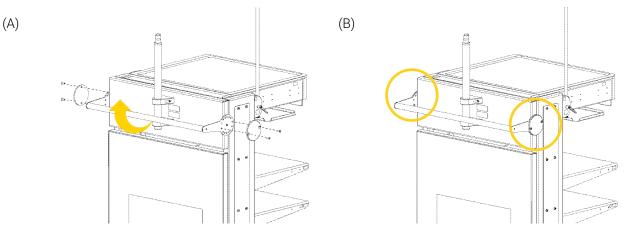


Figure 27: Transport handle adjustment

3. Move the transport handle up and down a few times to ensure it is properly secured. If the handle does not move after the verification, it is properly secured.

The adjustment of the transport handle is complete.

Place the Medical Devices on the Shelves

- 1. Place the medical devices on the shelves of the cart (refer to Figure 5 on page 18). Refer to your protocols and the user documentation provided with each specific medical device for the safety guidelines, user instructions, and safe use.
 - **NOTE :** The configuration of your medical devices depends on the specific need of the patient and the safe working loads permitted to ensure proper weight distribution on the cart. Refer to the « Technical Specifications » section on page 14 if needed.
- 2. Unscrew the ten (10) screws and remove one (1) or both cable management panel(s) located on either side of the cart, using a Phillips-head screwdriver (Figure 28).

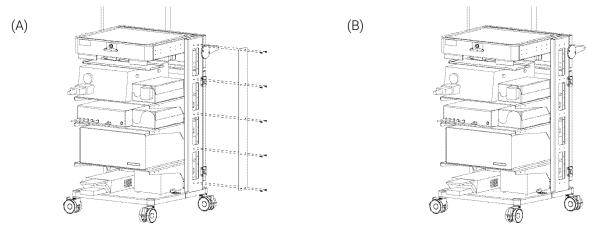


Figure 28: Removal of the cable management panels (1 of 2 sides shown)





3. Route the cables and wires of the medical devices towards the sides of the cart, connect them to the power bars, and use the cable grommets and cable ties on any loose cable if needed (Figure 29).

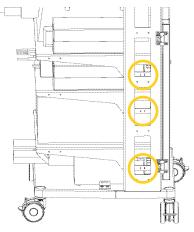


Figure 29: Cable grommets

4. Open the hinged door using the release button (Figure 30), then remove the cable tie holding the video output cable for the external monitor, if needed.

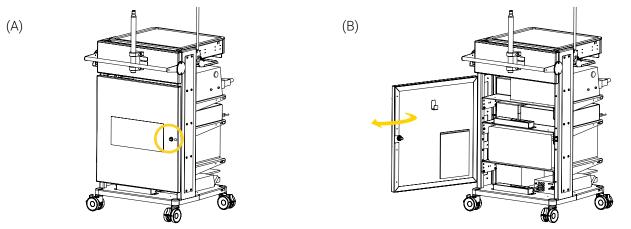
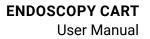


Figure 30: Hinged door



- 5. Close the hinged door and press until properly shut (Figure 31 A).
- 6. Press on the hinged door a few times to ensure it is properly closed. If the door does not open after the verification, it is properly closed.
- 7. Reinstall the cable management panel(s) by reusing the ten (10) screws and a Phillips-head screwdriver (Figure 31 B).

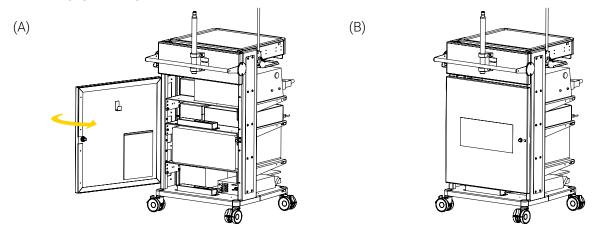


Figure 31: Medical devices installed on the cart

The medical device placement on the cart is complete.

TECHNIMOUNT

MEDICAL®

Install the Type D/M15 or type E/M24 Gas Cylinder Mounting Bracket

1. Identify the gas cylinder mounting bracket assembly parts (Figure 32).

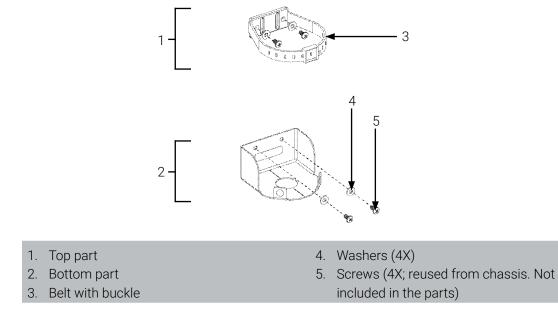


Figure 32: Gas cylinder mounting bracket assembly parts



2. Remove the last four (4) screws of one (1) of the two (2) cable management panels located on either side of the cart chassis using a Phillips-head screwdriver (Figure 33) and set them aside temporarily.

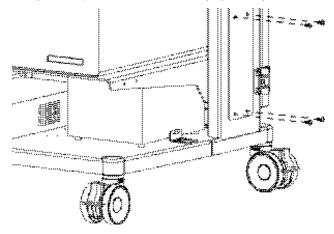


Figure 33: Cable management panel - screw removal for the gas cylinder mounting bracket

3. Align the screw holes of the bottom part of the mounting bracket with the last two (2) holes of the chassis, then tighten by reusing two (2) of the four (4) screws, two (2) washers and a Phillips-head screwdriver (Figure 34).

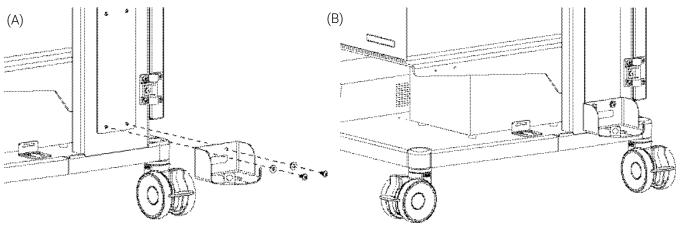


Figure 34: Installation of the gas cylinder mounting bracket (bottom part)



4. Align the screw holes of the top part of the mounting bracket in the two (2) second to last holes of the chassis, then tighten by reusing the remaining two (2) screws, two (2) washers and a Phillips-head screwdriver (Figure 35).

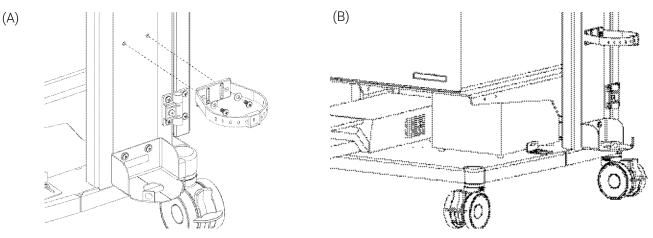


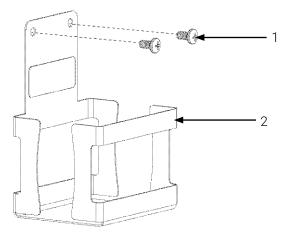
Figure 35: Installation of the gas cylinder mounting bracket (top part)

5. Move the mounting bracket up and down a few time to ensure that both parts of the bracket are properly secured. If the parts do not move after the verification, the mounting bracket is properly secured.

The installation of the gas cylinder mounting bracket is complete.

Install the Water bottle Mounting Brackets

Identify the water bottle mounting bracket assembly parts (Figure 36).



1. 1/4 in.-20 X 1/2 in. Phillips button head 2. Mounting bracket screws (2X)

Figure 36: Water bottle mounting bracket assembly parts



To Install the Bracket on a Shelf

1. Align the screw holes of the mounting bracket with the two (2) holes of the shelf, then tighten using the two (2) screws and a Phillips-head screwdriver (Figure 37). The shelf chosen will depend on your configuration needs. The mounting bracket can be installed on either sides of all three (3) shelves.

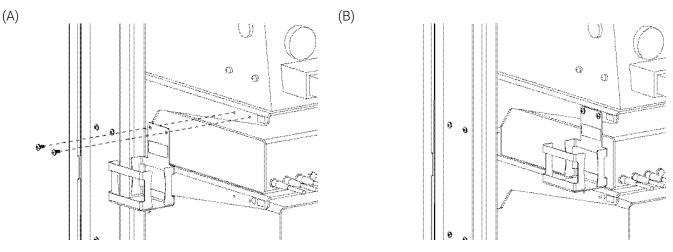


Figure 37: Installation of the water bottle mounting bracket on a shelf

2. Move the mounting bracket up and down a few times to ensure it is properly secured. If the bracket does not move after the verification, it is properly secured.

The installation of the water bottle mounting bracket on a shelf is complete.

To Install the Bracket on the Cable Management Panel

- 1. Remove the two (2) screws of the cable management panel located on either side of the cart using a Phillips-head screwdriver (Figure 38).
 - **NOTE :** The two (2) screws can be reused, or you can use the two (2) provided screws. Store whichever ones you do not use.

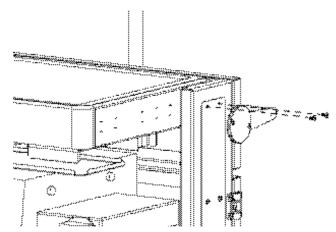


Figure 38: Cable management panel - screw removal for the water bottle mounting bracket



2. Align the screw holes of the mounting bracket with the two (2) holes of the chassis, then tighten using two (2) screws and a Phillips-head screwdriver (Figure 39).

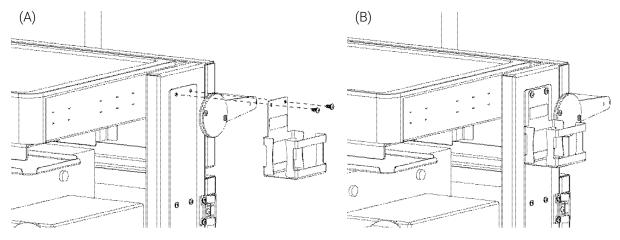


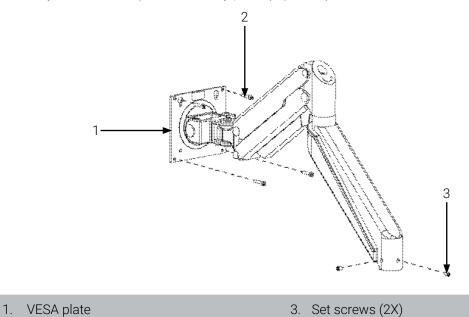
Figure 39: Installation of the water bottle mounting bracket on the cable management panel

3. Move the mounting bracket up and down a few times to ensure it is properly secured. If the bracket does not move after the verification, it is properly secured.

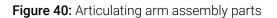
The installation of the water bottle mounting bracket on the cable management panel is complete.

Install the Monitor

1. Identify the articulating arm assembly parts (Figure 40).



2. Screws (4X; user provided, specifications depends on the monitor)





2. Align and install the articulating arm on the mounting bracket (Figure 41).

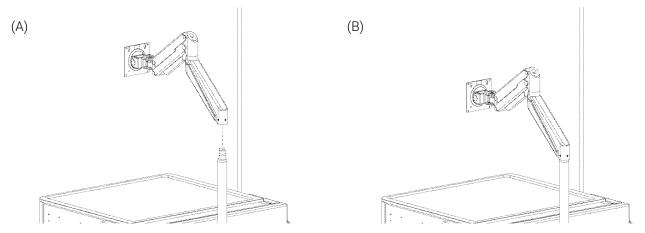


Figure 41: Installation of the articulating arm

- 3. Locate the set screws on the articulating arm (Figure 42). The set screw on the side of the arm secures the articulating arm in the mount, whereas the set screw at the end of the arm, adjusts the tension.
- 4. Secure the arm by turning the set screw located on the side of the arm (Figure 42 A) 1/2 turn counterclockwise, then adjust the arm tension using the set screw at the end of the arm (Figure 42 B), using a 4 mm hex key if needed.

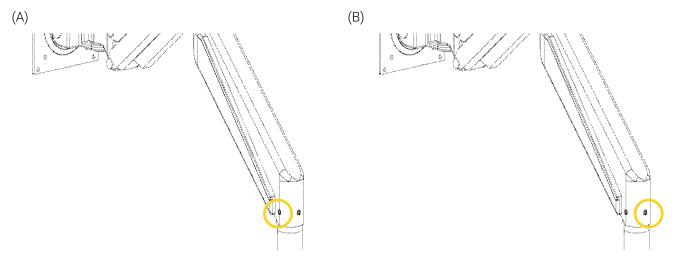


Figure 42: Set screws on the articulating arm

5. Move the arm back and forth a few times to ensure it is properly secured on the mount. If the arm does not move after the verification, it is properly secured.



- 6. Partially tighten two (2) screws in the two (2) top screw holes of the monitor (Figure 43 A).
 - **NOTE :** The hardware and tools required for the installation of the monitor on the articulating arm are user-provided and will depend on the type of monitor. Refer to the « Technical Specifications » section on page 14 for safe working load specifications if needed.
- 7. Align and insert the two (2) screws with the two (2) top holes of the VESA plate (Figure 43 B).
 - **NOTE :** To facilitate the installation of the monitor, a two (2) person lift carrying technique is recommended.

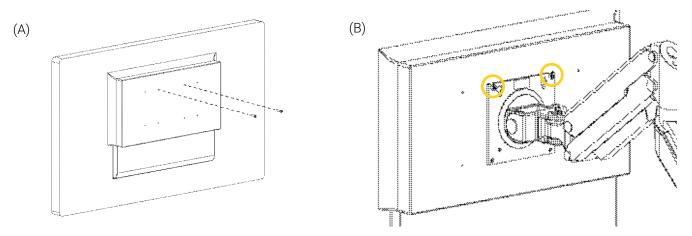


Figure 43: Installation of the monitor (1 of 2)

- 8. Align the two (2) bottom screw holes of the monitor with the two (2) bottom holes of the VESA plate, then tighten (Figure 44 A).
- 9. Tighten the two (2) top screws (Figure 44 B).

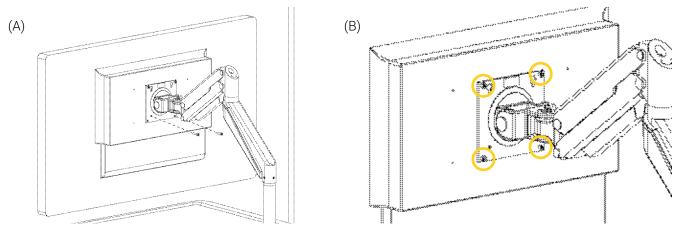


Figure 44: Installation of the monitor (2 of 2)

10. Move the monitor back and forth a few times to ensure it is properly secured to the VESA plate. If the monitor does not move after the verification, it is properly secured.



11. Turn the adjustment screw, located on the VESA plate connector (Figure 45), clockwise or counterclockwise to adjust the rotational tension of the monitor.

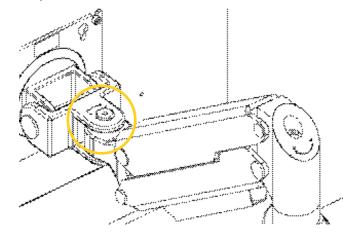


Figure 45: Adjustment screw controlling the rotational tension of the monitor

- 12. Rotate the monitor from side to side a few times to ensure that the rotational tension is properly adjusted. It is properly adjusted when you can move the monitor from side to side as needed without the arm moving position.
- 13. Turn the adjustment screw, located on the arms' swivel connector (Figure 46), clockwise or counterclockwise to adjust the arm articulation tension.

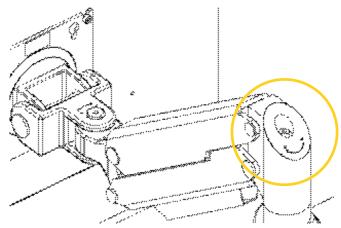


Figure 46: Adjustment screw controlling the arm articulation tension

14. Move the monitor up and down a few times to ensure that the arm articulation tension is properly adjusted. It is properly adjusted when you can move the monitor up and down as needed without it lowering.

The installation of the monitor on the articulating arm is complete.



Install the Endoscopes

Hang the endoscopes on the endoscope mounting bracket. Refer to your protocols and the user documentation provided with each specific medical device for the safety guidelines, user instructions, and safe use (Figure 47).

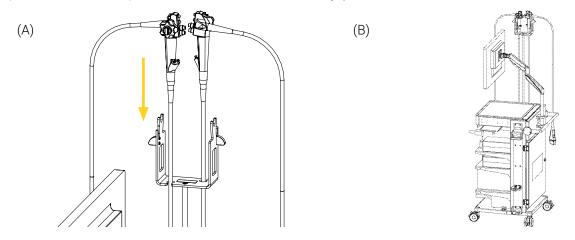


Figure 47: Installation of the endoscopes

The installation of the endoscopes on the endoscope mounting bracket is complete.

Install the Keyboard

1. Pull the keyboard tray horizontally to access the tray (Figure 48 A).

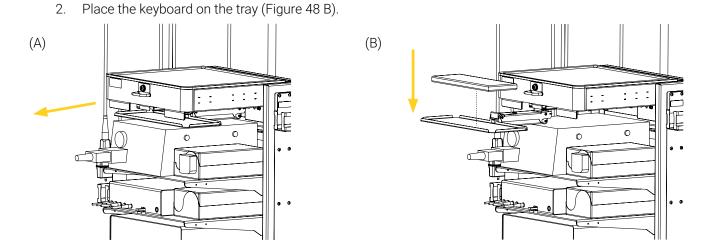


Figure 48: Installation of the keyboard



3. Push the tray horizontally to retract it (Figure 49).

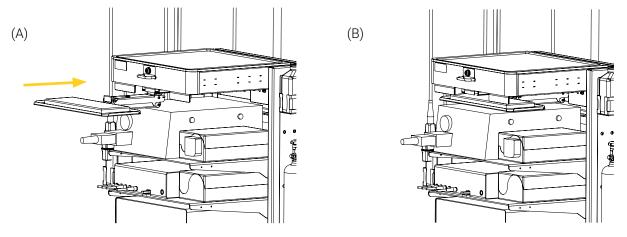


Figure 49: Keyboard installed

The installation of the keyboard in the keyboard tray is complete.





Annex IV Maintenance

Safety checks and condition-based maintenance should be carried out by biomedical technicians (or equivalent) who have extensive mechanical experience, and advanced skill level and have read all the « Safety Measures » section on page 12, and the maintenance specific safety measures listed below.

Factors such as weather, environment, geographical location and individual usage will necessitate different needs. For the maintenance of the Endoscopy Cart, follow the guidelines listed herein and in accordance with your service's current maintenance practices and protocols. Please contact Technical Support at techsupport@technimount.com for replacement parts or repair related issues if needed.



WARNING – General Warning

- **Do not** perform safety checks or condition-based maintenance before having read the entire content of the user manual, gained in-depth knowledge and product comprehension, and familiarized yourself with the standards and guidelines.
- Safety checks and a condition-based maintenance plan are required and should be established for all Technimount products.
- Perform the safety checks and maintenance operations as described herein. Failing to follow the recommended maintenance plan or its guidelines could cause premature damage to the product.
- Use only Technimount parts or maintenance procedures as described herein. Using unapproved modified parts or procedures for the maintenance of the Technimount product may cause the system to be unstable and could cause injury to the patients or clinical staff and void the product warranty.
- Replace damaged or worn-out parts if past their expected service life or when damaged (refer to the « Replacement Parts/Kits » section on page 55). Recycle damaged parts or dispose according to the environmental laws that apply to your jurisdiction and consult the Safety Data Sheets (SDS).



CAUTION – Safe Handling and Operation

- **Do not** use unauthorized, unapproved or untested cleaning products or any other disinfectants containing hydrogen peroxide or aggressive oxidizers. Performing condition-based maintenance using untested cleaning product could damage the surface of your Technimount product and void its warranty. Technimount will not be held liable for damages resulting from the use of an unauthorized, unapproved or untested cleaning product.
- **Do not** use powered tools to screw the hardware during installation, as there is a potential risk of damage to the threads.
- Do not steam clean or use ultrasonic cleaners on the cart or any of its components.
- **Do not** immerse the metal parts/components in water.
- To spot clean, the maximum water temperature should not exceed 180° F/82° C. The maximum water pressure should not exceed 1500 psi/103.5 BAR. If using a high pressure washer to clean the system, the pressure nozzle must be kept a minimum of 24 in. (61 cm) from the unit.
- When cleaning, always use appropriate Personal Protection Equipment (PPE) based on established protocols (e.g., gloves, eyewear, etc.).





CAUTION – Corrosion

- Always rinse and dry the cart properly after using cleaning products. Certain types of cleaners may leave a corrosive residue on the surface of the product and could cause the premature corrosion of critical components. Refer to the product Safety Data Sheets (SDS) for chemical information or handling, storage and emergency measures in case of accident.
- Dispose of corrosive wastes according to the environmental laws that apply to your jurisdiction and consult the Safety Data Sheets (SDS).



CAUTION – Follow Instructions for Use

Always read and abide by all the safety guidelines identified, as well as follow instructions provided by the manufacturer of the cleaning product.

Maintenance Frequency

- Safety checks and the condition-based maintenance should be performed minimally every month or as frequently needed, to prolong the longevity of the cart in optimal conditions.
- Decontaminate the cart as recommended in your internal protocols, as well as the regulations and standards in virtue of the infection prevention and control procedures.

Required Tools

- Clean dry cloths
- Soft brush
- Pressure washer
- Cleaning solutions
- 4 mm hex key
- Phillips-head screwdriver #3

Tested and Approved Cleaning Solutions

- Lavo 12, 10 000 ppm Sodium Hypochlorite
- TNT-100, 5% Quaternary Ammonium Compound
- Spectro-Sept, 5% Ethyl Alcohol
- Spectrol, 5% EDTA salt



Maintenance Plan

- **NOTE :** In case of a non-conformity, stop using the product and contact Technical Support at techsupport@technimount.com immediately for a remedial action plan.
- **NOTE :** Always keep records of your maintenance activities and immediately remove defective or expired products from your inventory.

MAINTENANCE PLAN CO				
SAFETY CHECKS	YES	NO		
Endoscopy Cart (Figure 50)				
 Visually inspect all the components of the cart to ensure there is no damage or chemical attack, that the hardware is in good condition and there are no loose screws: 				
- Drawer				
- Keyboard tray				
- Mid shelves (3X)				
- Bottom surface				
- Articulating arm (monitor mounting bracket)				
- Water bottle mounting bracket				
- Gas cylinder mounting bracket				
- Dual wheel swivel caster with breaking system (4X)				
- Hinged door				
- Transport handle				
- Monitor mounting bracket				
- Endoscope mounting bracket and pole				
- If there is damage to the components, remove the product from circulation and contact Technical Support immediately for a remedial action plan.				
- If there are traces of chemical attack, follow the conditioned-based maintenance herein.				
- If the hardware is not in good condition, replace it. Contact Technical Support if needed.				
- If the hardware is loose, tighten using a Phillips screwdriver.				
 Visually inspect the cavities of the mounting solution components and make sure there are no lodged particles to ensure proper functioning. If so, immediately remove using a clean dry cloth: 				
- Drawer				

- Keyboard tray



MAINTENANCE PLAN CO					MPLIANT	
SAF	έτγ	CHECKS		YES	NO	
	-	Articulating	arm (monitor mounting bracket)			
	-	Dual wheel	swivel caster with breaking system (4X)			
	-	Monitor mo	ounting bracket			
	-	Endoscope	mounting bracket and pole			
-			loscope mounting bracket is tight around the pole. The pole should be ce. If not, tighten the hardware using a Phillips screwdriver.			
-			culating arm is adequately tensed. The monitor should stay in the placed , tighten the set screws (2X) using a hex key.			
-			nitor is properly secured on the articulating arm. The monitor should be ce. If not, tighten the set screw using a hex key.			
-	no	wear or tea	et the buckle and strap of the gas cylinder mounting bracket to ensure there is rs. If so, remove the product from circulation and contact Technical Support or a remedial action plan.			
-			the brake of each dual wheel swivel caster and make sure of proper ne mechanism should lock and unlock without resistance.			
CON	IDI	ION-BASE	D MAINTENANCE	YES	NO	
Follo	wing	g the safety	checks,			
Clear	ո the	e Endoscop	y Cart			
	1.	Remove th	ne excess dirt using a clean cloth, if needed.			
	2.		ne contaminants using a pressure washer or as recommended in your internal and control procedures.			
	3.	Clean usir	ig a cloth and cleaning solution.			
	4. Spot clean stains by applying the solution directly on the stain and let sit on the surface, if needed.					
		NOTE :	Avoid over saturation and ensure that the product does not sit on the surface of the cart longer than recommended by the cleaner's manufacturer.			
	5.	-	y rinse the solution with a clean cloth dampened with lukewarm water, then components using a clean cloth before returning to service.			



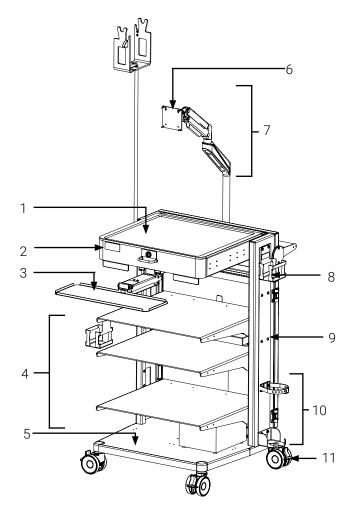
Comments and observations following the Safety Checks and Condition-Based Maintenance:

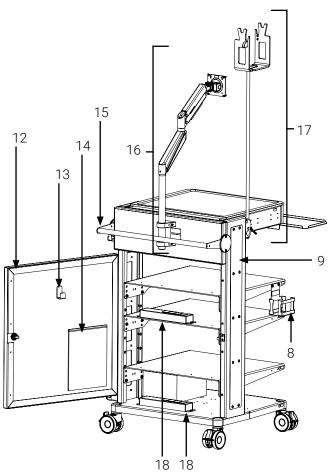
Maintenance plan completed on (dd/mm/yyyy):

Maintenance plan completed by:



Illustrated Inspection Points





- 1. Work surface
- 2. Drawer
- 3. Keyboard tray
- 4. Mid shelves (3X)
- 5. Bottom surface
- 6. VESA plate
- 7. Articulating arm (monitor mounting bracket)
- 8. Water bottle mounting bracket
- 9. Wire/cable management panel (2X)
- 10. Gas cylinder mounting bracket

- 11. Dual wheel swivel caster with breaking system (4X)
- 12. Hinged door
- 13. Cable management hook
- 14. Pouch with User Manual
- 15. Transport handle
- 16. Monitor mounting bracket
- 17. Endoscope mounting bracket
- 18. Medical grade power bar with surge protection (2X)

Figure 50: Illustrated inspection points



Annex V Replacement Parts/Kits

Technimount reserves the right to change part numbers and products without notice. Please contact Customer Service at customerservice@technimount.com to ensure product options and availability, or Technical Support at techsupport@technimount.com for replacement parts/kits or repair related issues.

PART/KIT NUMBER	PART/KIT DESCRIPTION
3002-00-5947UAP100	4-in. OD (10.16 cm OD) dual wheel swivel casters with braking system
POL-10-END	Pole of the endoscope mounting bracket
SUP-40-WAT	Water bottle mounting bracket
GAS-10-SIB	Mounting bracket for Type D/M15 or type E/M24 gas cylinders



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