





SETUP VIDEO



OPERATION VIDEO



USER MANUAL

#### THIS PAGE IS INTENTIONALLY BLANK

# Table of Contents

| APPLICABLE MODEL(S)                                   | IV |
|---|----|
| REVISION HISTORY TABLE                                | IV |
| GENERAL INFORMATION                                   | 1  |
| Purpose of this Manual                                | 1  |
| Intended Use  | 1  |
| Training Options                                      | 1  |
| Symbols and Warnings                                  | 2  |
| Symboles et Avertissements                            | 2  |
| Safety Instructions                                   | 4  |
| Electrical Requirements                               | 4  |
| Contraindications                                     | 5  |
| Transportation and Storage Conditions                 | 5  |
| Disposal of Equipment                                 | 5  |
| EQUIPMENT FEATURES                                    | 6  |
| INSTALLATION  | 8  |
| Required Tools  | 8  |
| Explanation of Instructions                           | 8  |
| Unpacking and Set-up                                  | 8  |
| OPERATION   | 10 |
| Operating Conditions                                  | 10 |
| Controls  | 10 |
| Electrical Distribution Box                           | 11 |
| Drawer Slides   |    |
| Pressure Hose   |    |
| Vacuum Hose   |    |
| Lift-Up Shelf   | 12 |
| ACCESSORIES INSTALLATION                              |    |
| Cabinet Foot Control                                  |    |
| Glove and Tissue Dispensers                           |    |
| Medicine Lock Box                                     |    |
| Vacuum Pressure Evacuation System                     |    |
| Dual Suction Hoses and Valves                         |    |
| LIST OF ACCESSORIES                                   |    |
| MAINTENANCE   |    |
| Cleaning & Disinfection                               |    |
| Preventative Maintenance                              |    |
| Replacing In-Line Evacuation Filter                   |    |
| Calls for Service                                     |    |
| LIMITED WARRANTY                                      |    |
| TROUBLESHOOTING GUIDE                                 |    |
| SPECIFICATIONS  |    |
| IN-SERVICE CHECKLIST FOR TC100 & TC75 SERIES CABINETS | 22 |

# APPLICABLE MODEL(S)

This manual is for the following product numbers and serial numbers:

| PRODUCT NUMBER | DESCRIPTION  | EFFECTIVE S/N |
|----------------|--|---------------|
| TC100AS        | TC100AS ENT Cabinet, Std Depth Sit-Down                | All-Current   |
| TC100AT        | TC100AT ENT Cabinet, Slim Depth Sit-Down               | All-Current   |
| TC100BS        | TC100BS ENT Cabinet, Std Depth Stand-Up                | All-Current   |
| TC100BT        | TC100BS ENT Cabinet, Slim Depth Stand-Up               | All-Current   |
| TC100CS        | TC100CS ENT Cabinet, Std Depth Sit-Down w/Side Storage | All-Current   |
| TC100DS        | TC100DS ENT Cabinet, Std Depth Stand-Up w/Side Storage | All-Current   |
| TC75AS         | TC75AS ENT Cabinet, Std Depth Sit-Down                 | All-Current   |
| TC75AT         | TC75AS ENT Cabinet, Slim Depth Sit-Down                | All-Current   |

# **REVISION HISTORY TABLE**

| DATE       | REVISION | CO#/ECO#        | DETAILS   |  |
|------------|----------|-----------------|---|--|
|            | ORG      |                 | Initial Release   |  |
|            | А        |                 |   |  |
| 2/3/2017   | В        | CO-0070/EC-0285 | Updated manual to new format, updated information regarding location of pumps, valve configurations, & suction handles  |  |
| 7/5/2017   | С        | CO-0139         | Corrected BOM, Added set-up instructions about the 230V option  |  |
| 11/21/2019 | D        | CO-0266         | Updated images, model numbers, specifications, and format   |  |
| 6/14/2022  | Е        | CO-0380         | Updated images with evacuation filter, added medicine cabinet installation instructions, modified shipping size specification, added evacuation filter replacement instructions, modified in-service page, and other minor edits. |  |
| 2/23/2024  | F        | CO-0460/EC-0754 | Updated images with pump and pump mounting brackets, installation instructions, and stacking height. Removed 230V option. Added heat warning regarding pumps. Added QR Codes.   |  |

# **User Manual**

# MTI TC Series Cabinets

## **GENERAL INFORMATION**

#### **Purpose of this Manual**

This manual covers the safety, installation, instructions for use, and maintenance of this equipment. It is intended that it be used by the service professional installing the equipment and by the medical professionals who have been trained to use it. No repair information is included with this manual, because no operator repairs are intended.

#### **Intended Use**

This equipment is intended to be used as a cabinet for general examinations and procedures performed by medical professionals.

## **Training Options**

Training is based on the intended use of the equipment and the proficiency of the medical professionals who will be using the equipment. Training is accomplished either through reading the installation and operation sections of the user manual or through remote training provided by MTI Customer Service. To request training, contact MTI.

## PRODUCT INFORMATION

| Date of Purchase | ): <u> </u> |
|------------------|-------------|
| Model Number:    |             |
| _                |             |
| Serial Number:   |             |

(see "EQUIPMENT FEATURES" on page 6 for location of serial number label)

#### **Symbols and Warnings**

This manual contains Notices, Cautions, and Warnings, which are meant to call attention to particular parts or sections of this manual. Since safety is of our utmost concern, this manual should be read by all personnel who will be operating this medical equipment.

#### **Symboles et Avertissements**

Ce manuel contient des avis, des précautions et des avertissements qui sont destinés à attirer l'attention sur des pièces ou des sections de ce manuel particulier. Parce que la sécurité est notre première préoccupation, ce manuel doit être lu par tout le personnel qui sera d'utiliser cet équipement médical.



## /!\ WARNINGS/AVERTISSEMENTS

Are used to call attention to condition, practice, or procedure, which could cause personal injury if not followed correctly. Please become familiar with all warnings and observe them at all times.

Sont utilisés pour attirer l'attention sur une condition, pratique ou procédure qui pourrait causer des blessures s'il n'est pas suivi correctement. S'il vous plaît se familiariser avec tous les avertissements et les observer à tout moment.



# 

Are used to call attention to a condition, practice, or procedure which could cause product damage if not used correctly.

Sont utilisés pour attirer l'attention sur une condition, pratique ou procédure qui pourrait causer des dommages au produit s'il n'est pas utilisé correctement.



# NOTICES/AVIS

Are used to call attention to helpful information regarding a condition, practice, or procedure.

Sont utilisés pour attirer l'attention sur des informations utiles concernant une condition, pratique ou de procédure.

| <b>.</b>    | Type B applied part                                |
|-------------|--|
| Λ           | Type B, partie appliquée                           |
| <b>* *</b>  | Proper shipping orientation for the product        |
| <u> 11</u>  | Orientation d'embarquement correct pour le         |
|             | produit  |
|             | Product is fragile; be careful in handling         |
| T           | Le produit est fragile. Soyez prudent lors de la   |
|             | manipulation                                       |
|             | Protective earth ground                            |
|             | Terre électrique de protection                     |
|             | Alternating current                                |
|             | Le courant alternatif                              |
| <i>::::</i> | Product must be kept dry                           |
| T           | Le produit doit rester sèche                       |
| 1/          | Upper and lower limits of temperature              |
| 1           | Limites haute et basse de la température           |
|             | Maximum stacking height of palletized units.       |
| 1           | Hauteur maximale de la pile d'unités sur palettes. |
|             |  |
|             | Indicates the presence of a dangerous              |
| $\wedge$    | voltage/shock hazard                               |
| 77          | Indique le présence de voltage dangereux/ de choc  |
|             |  |
|             | Follow instructions for use                        |
|             | Suivez les instructions pour l'utilisation         |
|             | Consult operating instructions                     |
|             | Consultez les instructions d'utilisation           |
|             | Manufacturer of product                            |
|             | Fabricant de produits                              |
|             | Date on which the product was manufactured         |
| $\sim$      | Date de fabrication                                |
|             |  |
|             | Identifies the manufacturer's serial number        |
| SN          | Identifie le numéro de série du fabricant          |
|             |  |



| (%)                  | Upper and lower limits of relative humidity        |
|----------------------|--|
|                      | Limites haute et basse de humidité relative        |
|                      | Upper and lower limits of atmospheric pressure     |
| ( <del>\$</del> •\$) | Limites haute et basse de la pression              |
|                      | atmosphérique                                      |
|                      |  |
|                      | Location of fuses                                  |
| ]                    | Emplacement de fusibles                            |
| NI                   | Connection point for the neutral conductor         |
|                      | Point de connexion pour le conducteur neutre       |
|                      | Connection point for the live conductor            |
|                      | Point de connexion pour le conducteur sous tension |
|                      | Connection point for the protective earth (ground) |
| G                    | conductor  |
| G                    | Point de connexion pour le conducteur de           |
|                      | protection (fil de masse)                          |
|                      | (WEEE) Waste of Electrical and Electronic          |
| 7                    | Equipment  |
|                      | Déchets d'équipements électriques et électroniques |
|                      |  |
| ETL CLASSIFIED       | ETL listing mark                                   |
| c us<br>Intertek     | Marque ETL Listé                                   |
|                      | UL listing mark                                    |
| LISTED               | Marque UL Listé                                    |
| ((                   | European Conformity mark                           |
| 7                    | Marque Conformité Européenne                       |
|                      | Hospital Grade (green dot)                         |
|                      | De qualité hôpital (point vert)                    |
|                      | •  |

## **Safety Instructions**



## ∕!\ WARNING/AVERTISSEMENT

Read this manual before installation and use.

Lisez ce manuel avant l'installation et l'utilisation.



## ∕!\ WARNING/AVERTISSEMENT

No modification of this equipment is allowed.

Aucune modification de cet équipement est autorisé.



## WARNING/AVERTISSEMENT

Do not operate equipment in the presence of flammable anesthetics.

Ne pas faire fonctionner l'équipement en présence d'anesthésiques inflammables.



## WARNING/AVERTISSEMENT

Ensure controls, cords, and other parts of the equipment do not create a tripping or other safety hazard for operator or patient.

Vérifiez les contrôles, les cordons et les autres parties de l'équipement ne créent pas un risque de trébuchement ou d'autres risques d'accident pour l'opérateur ou le patient.



# /!\ WARNING/AVERTISSEMENT

This product can expose you to chemicals including wood dust, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov and see www.mti.net/faqs for details on California Proposition 65.

Ce produit peut vous exposer à des agents chimiques, y compris la poussière de bois, identifiés par l'État de Californie comme pouvant causer le cancer. Pour de plus d'informations, prière de consulter www.P65Warnings.ca.gov et voir www.mti.net/faqs pour les détails sur le Proposition de Californie 65.



# WARNING/AVERTISSEMENT

The pressure and vacuum pumps generate heat. To avoid serious burns never touch unit during or immediately after operation. The pressure and vacuum pump should not be used for longer than 5 minutes of continuous use.

Les pompes à pression et à vide génèrent de la chaleur. Pour éviter des brûlures graves, ne touchez jamais l'appareil pendant ou immédiatement après son fonctionnement. La pompe à pression et à vide ne doit pas être utilisée pour plus de 5 minutes d'utilisation continue.

## **Electrical Requirements**



# !\ WARNING/AVERTISSEMENT

To avoid risk of electrical shock, this equipment must be connected to a supply mains with protective earth.

Pour éviter tout risque de choc électrique, cet appareil doit être branché sur une prise électrique avec la terre électrique de protection.



# N WARNING/AVERTISSEMENT

Grounding reliability can only be achieved when the equipment is connected to an equivalent receptacle marked "Hospital Only" or "Hospital Grade".

Mise à la terre fiabilité ne peut être atteint lorsque l'appareil est connecté à un réceptacle équivalent marqué "Hôpital Uniquement" ou "de Qualité Hôpital".



## WARNING/AVERTISSEMENT

Connecting electrical equipment to multiple socket-outlet effectively leads to creating a medical electronic system and can result in a reduced level of safety.

Connexion d'un équipement électrique à une prise de courant multiple crée un système électronique médicale, et peut entraîner une baisse du niveau de sécurité.



# WARNING/AVERTISSEMENT

Equipment must be positioned in normal use such that the power cords can be easily accessed to unplug.

L'appareils doit être positionné en utilisation normale telle que les cordons d'alimentation peuvent être facilement accessibles à débrancher.



# WARNING/AVERTISSEMENT

Equipment must be connected to an appropriate power source when loss of power source would result in an unacceptable risk.

L'appareils doivent être relié à une source d'alimentation appropriée en cas de perte de la source d'alimentation entraînerait un risque inacceptable.



# /!\ WARNING/AVERTISSEMENT

Do not use a two-three plug adapter to plug the equipment into a two conductor outlet, as grounding reliability is not maintained.

Ne pas utiliser un adaptateur non de prise de terre pour brancher l'appareil sur une prise à deux conducteurs, la fiabilité de la terre n'est pas maintenue.



# ! NOTICE/AVIS

Removing the power supply cord at the equipment input or wall receptacle will simultaneously isolate both poles of the power supply.

Retrait du cordon d'alimentation à l'équipement ou à la prise murale se isoler simultanément les deux pôles de l'alimentation.

#### **Contraindications**

None.

## **Transportation and Storage Conditions**

| 1                    | Ambient<br>Temperature | +10°C to +40°C<br>(+50°F to +104°F)       |
|----------------------|------------------------|---|
| <u>%</u>             | Relative<br>Humidity   | 30% to 75%<br>(non-condensing)            |
| Atmospheric Pressure |                        | 700hPa to 1060hPa<br>(0.69atm to 1.05atm) |

# **Disposal of Equipment**

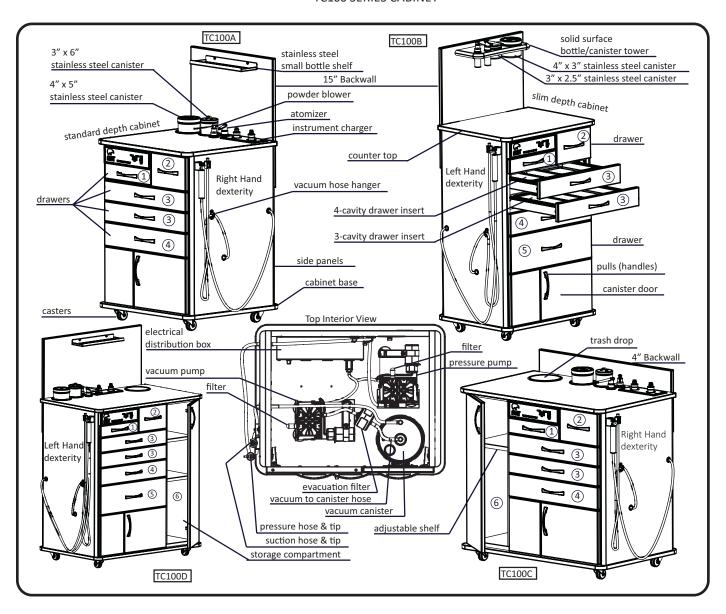
At the end of product life, the equipment, accessories, and other consumable goods may have become contaminated due to normal medical use. Consult local codes and ordinances for proper disposal of equipment, accessories and other consumable goods.

# **EQUIPMENT FEATURES**

#### **Description of TC100 Series Cabinets**

TC100 Series Cabinets come in 6 basic sizes with each size having a left-hand or right-hand dexterity. The left hand dexterity places the instrument handles and hoses on the left side of the cabinet as you are facing it. The right hand dexterity places the instrument handles and hoses on the right side of the cabinet as you are facing it. The A-size cabinets are 33.75" tall by 25.25" wide in standard depth (21") or slim depth (18"). The B-size cabinets are 41.25" tall by 25.25" wide in standard depth (21") or slim depth (18"). The C-size cabinets are 33.75" tall by 35.75" wide in standard depth (21"). The D-size cabinets are 41.25" tall x 35.75" wide in standard depth (21"). Many cabinets have configurable options including: height of the backwall (4" or 15"), laminate or stainless steel cabinet, color of drawers and counter top, choice of 1 of 2 vacuum pumps or central vacuum, and a pressure pump or central pressure. Other accessories include: LED light sources, instrument heads, instrument charger and handles, glassware and canisters, drawer locks, mirror warmers, glove and tissue dispensers, medicine lock boxes, and a mirror warming drawer.

#### **TC100 SERIES CABINET**

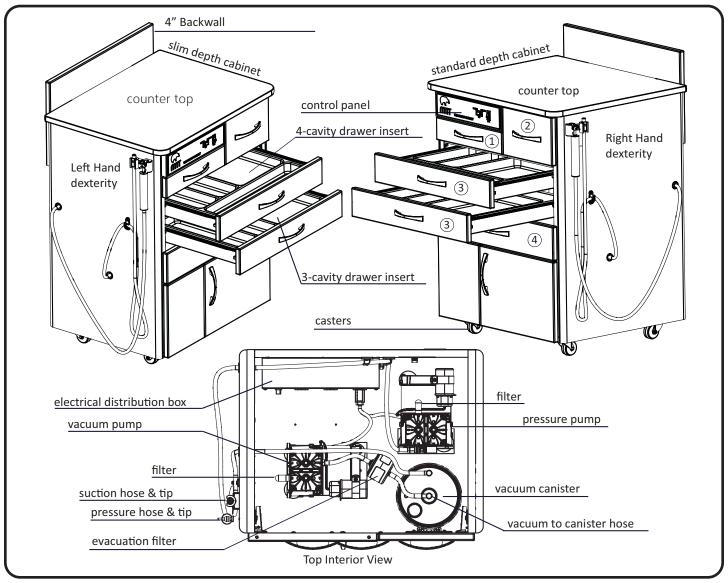




#### **Description of TC75 Series Cabinets**

TC75 Series Cabinets come in 2 basic sizes with each size having a left-hand or right-hand dexterity. The left hand dexterity places the instrument handles and hoses on the left side of the cabinet as you are facing it. The right hand dexterity places the instrument handles and hoses on the right side of the cabinet as you are facing it. The TC75 cabinets are 33" tall by 25.25" wide in standard depth (21") or slim depth (18"). Many cabinets have configurable options including: height of backwall (4" or 15"), a choice of 1 of 2 vacuum pumps, and a pressure pump. Other accessories include: instrument heads, instrument charger and handles, and glassware and canisters.





## INSTALLATION



# MARNING/AVERTISSEMENT

This equipment is heavy. Get help to remove it from the shipping pallet. Use proper lifting procedures when lifting to avoid serious back injury.

Cet équipement est lourd. Obtenir de l'aide pour le retirer de la palette d'expédition. Utilisez les procédures propre de levage pour le soulever pour éviter grave blessure au dos.

# ♠ CAUTION/PRÉCAUTION

To move equipment, lift only from the equipment's main structure.

Pour déplacer l'appareil, soulevez seulement de la structure principale de l'appareil.

# NOTICE/AVIS

Inspect the shipping boxes for visible damage. Record on bill of lading, photograph, report any damage to the carrier immediately, and contact MTI Customer Service. Request an inspection by the carrier if any concealed damage is noted.

Inspectez les boîtes d'expédition pour les dommages visibles. Fiche sur le connaissement, prendre une photo, et signalez les dommages dûs au transporteur immédiatement. Demander une inspection par le transporteur en cas de dommage caché est noté.

#### **Required Tools**



Wire Cutters



Utility Knife

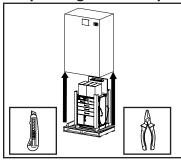


Phillips Screwdriver (for Accessories)

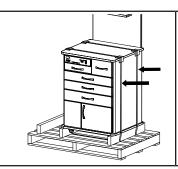
# **Explanation of Instructions**

Instructions have steps which are designated by a number. Each step may also have sub-steps designated by a letter. For example, an instruction to fasten an accessory may have 4 steps (1-4) and each of those steps may have sub-steps (A-B) to be performed before moving onto the next step.

# **Unpacking and Set-up**



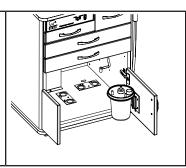
1. Remove shipping straps and shipping box from the pallet. Using the utility knife, cut the shrink wrap and remove other shipping materials. Remove accessories, and other boxes from the top of the cabinet.



2. Cut and remove the two internal banding strips holding the cabinet to the pallet. Remove the protective foam from the cabinet.



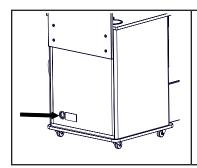
3. Slide the cabinet off the pallet by moving the cabinet on the pallet guides until it is over hanging the back of the pallet. Slide the back of the cabinet off the pallet and pull the pallet out from underneath the cabinet.



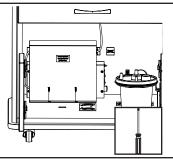
4. Vacuum and pressure pump installation:

Open the two doors at the bottom of the cabinet and, for convenience, remove the bottom drawer of the cabinet (see page 11).

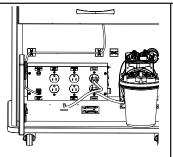




5. Push the power cord out the hole in the back of the cabinet and plug the cord into any standard outlet. If internal pressure and/or vacuum pumps were ordered, proceed to step 6. Otherwise, proceed to step 15.

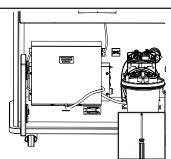


6. Remove the electrical shield in front of the electrical supply box using a Phillips screwdriver.

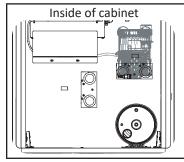


7. Remove the pumps from their boxes.

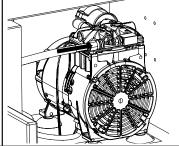
Plug the vacuum pump into the outlet labeled vacuum. Plug the pressure pump into the outlet labeled pressure on the electrical distribution box.



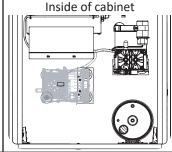
8. Reinstall the electrical shield removed in step 6.



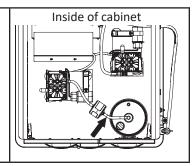
9. Place the pressure pump on the right side of the cabinet with the front feet in the circular features of the alignment bracket and the hose connection towards the front.



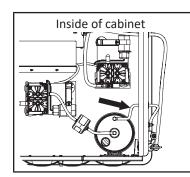
10. Connect the pressure hose with quick connect fitting to the pressure pump by pulling back on the exterior sleeve and pressing it over the fitting on the pump.



11. Place the vacuum pump on the left side of the cabinet with the front feet in the circular features of the alignment bracket. The standard vacuum pump is shown. The high volume pump will fit in the same location.



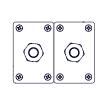
12. Connect the black suction hose from the vacuum pump to the center hole on the lid of the vacuum canister labeled vacuum.



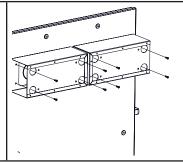
13. Connect the patient hose with plastic connector to the port on the canister labeled patient. All other ports should be capped.



14. Reinsert the drawer removed in step 4.



15. If the cabinet is ordered with central pressure and/or central vacuum, the cabinet is equipped with 1/4" NPT female fittings on the back of the cabinet. Connect the corresponding hoses to the fittings. Set the pressure regulator to 15 psi.



16. See "Accessories Installation" on page 13 for details regarding the installation of other accessories.

# **OPERATION**

# **Operating Conditions**

|             | Ambient Temperature  | +10°C to +40°C (+50°F to +104°F)           |
|-------------|----------------------|--|
| <u>%</u>    | Relative Humidity    | 30% to 75% (non-condensing)                |
| <b>♣•</b> ◆ | Atmospheric Pressure | 700 hPa to 1060 hPa (0.69 atm to 1.05 atm) |

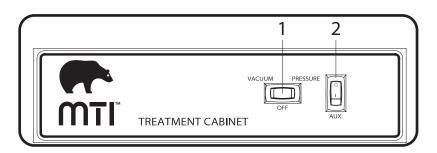
# MARNING/AVERTISSEMENT

The pressure and vacuum pumps generate heat. To avoid serious burns never touch unit during or immediately after operation. The pressure and vacuum pump should not be used for longer than 5 minutes of continuous use.

Les pompes à pression et à vide génèrent de la chaleur. Pour éviter des brûlures graves, ne touchez jamais l'appareil pendant ou immédiatement après son fonctionnement. La pompe à pression et à vide ne doit pas être utilisée pour plus de 5 minutes d'utilisation continue.

#### **Controls**

#### **Control Panel**



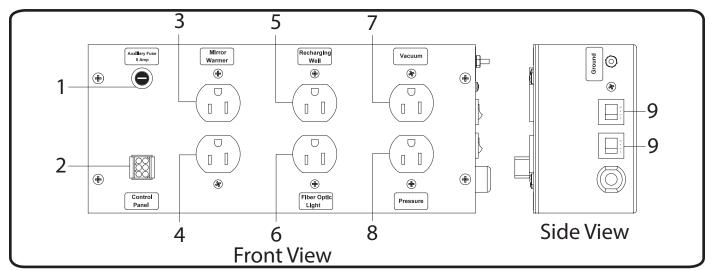
| ITEM | DESCRIPTION                      | FUNCTION                                   |
|------|----------------------------------|--|
| 1    | Vacuum/Pressure<br>Toggle Switch | Toggles between vacuum, off, and pressure. |
| 2    | Auxiliary Switch                 | Turns on or off the mirror warmer          |



#### **Electrical Distribution Box**

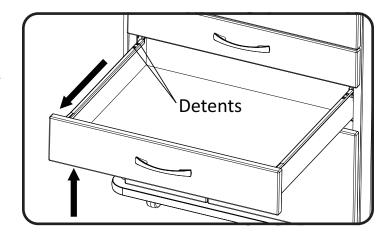
The electrical distribution box powers all of the electrical components in the cabinet. Listed are all of the components of the box.

- 1. Auxiliary Fuse 5 Amp: protects the cabinet and its components. If the fuse blows, either the load plugged into the receptacle it too great or there may be a short and a qualified service technician should inspect for a short. It has a 5 amp slow blow fuse rating. To replace fuse, turn fuse holder 90 degrees counter clockwise, replace fuse, reinsert holder and turn it 90 degrees clockwise.
- 2. Control Panel Female Receptor: the male plug on the control panel or foot control connects here.
- 3. Mirror Warmer Receptacle: the mirror warmer connects here and is turned on/off with the auxiliary switch on the control panel.
- 4. Unassigned Receptacle: Used when a second mirror warmer is present. This receptacle is also turned on/off with the auxiliary switch on the control panel.
- 5. Recharging Well Receptacles: the recharging wells connect here. This outlet will always have power.
- 6. Fiber Optic Light Receptacle: the fiber optic light source connects here. This outlet will always have power.
- 7. Vacuum Receptacle: the vacuum connects here and is turned on by rocking the vacuum/pressure to the left and is turned off by rocking it back to the middle.
- 8. Pressure Receptacle: the pressure connects here and is turned on by rocking the vacuum/pressure to the right and is turned off by rocking it back to the middle.
- 9. (2) 10 Amp Circuit Breakers: the (2) 10 amp circuit breakers protect both the power and neutral lines. If one or both breakers trip, inspection of all electrical components should be done before they are reset.



#### **Drawer Slides**

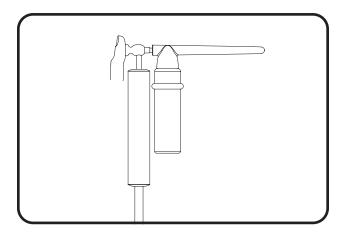
To lock the drawer from sliding back in, slide the desired drawer out until it stops. Lift up drawer slightly and pull. As soon as the drawer has cleared the first hump, lower the drawer back down. To remove the drawer, lift up the drawer and pull completely out.



#### **Pressure Hose**

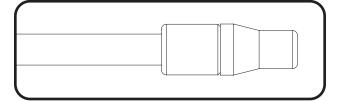
The pressure hose can be located on either the right or left side of the cabinet, depending on the cabinet dexterity. The handle and nozzle assembly is hung on a plastic hanger.

One end is mushroom shaped and is used for pressure control. The other end is tapered which is used to connect to a bottle. Hold the hose and bottle with one hand and change the pressure with your thumb. With the pressure turned on, moving the thumb over the hole of the mushroom shaped end will increase the allowable pressure. To decrease the pressure, remove your thumb to varying degrees.



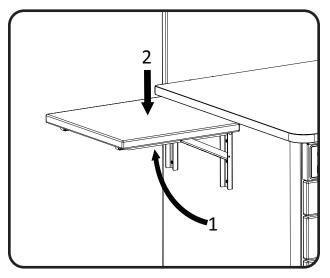
#### Vacuum Hose

The vacuum hose assembly is made out of a latex-free black hose. It is turned on and off using the cabinet control panel. When a dual-suction hose option is chosen, both vacuum hoses have a shut-off valve. Frequently turning on and off the vacuum will cause vacuum pressure to build up in the system and cause the vacuum to not turn on. See the "TROUBLESHOOTING GUIDE" on page 20.

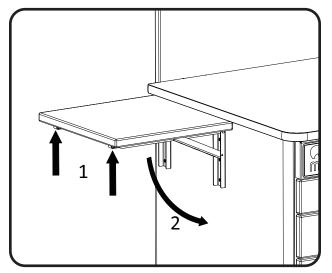


#### Lift-Up Shelf

An optional lift-up shelf can be used for extra counter space. The shelf is either 12" X 12" or 12" X 18" and comes installed on the cabinet. To lock it into a horizontal position, lift up on the shelf until horizontal and push down on the back of the shelf to ensure that it is locked.



To unlock the shelf and return it back to a vertical position, press the two levers on the braces, and let the shelf down slowly.





## **ACCESSORIES INSTALLATION**

There are many accessories available for the TC cabinet series. All accessories will be boxed and wrapped to the cabinet counter top. Most cabinets are supplied with some bottles, canisters, recharging wells, rechargeable handles, and instrument heads. However, verify the product and options against the order since MTI's TC Series Cabinets are customizable.

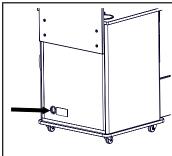
Most accessories either come installed on the cabinet before shipping, or they are easily installed out of the box. However, the following accessories need to be installed.

#### **Cabinet Foot Control**

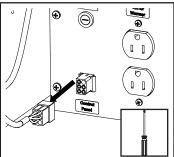
A cabinet foot control is used to control the vacuum and pressure by foot. It works in conjunction with the cabinet control box.

To use, rock the pedal to the right to use pressure and to the left to use the vacuum. As long as the pedal is actuated, the pump will run. As soon as the pedal is rocked back to the middle, the pump will stop.

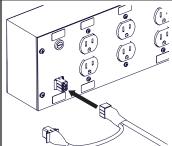
Follow these steps to install the foot pedal in the cabinet:



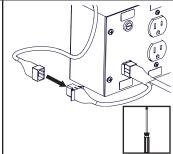
1. Feed the foot control wiring harness through the electric cord hole from behind the cabinet into the cavity of the cabinet.



2. Remove the electrical shield held on with (2) screws. See step 6 of "Unpacking and Setup" on page 9. Disconnect the control panel plug from the electrical box.



3. Connect the female connector of the foot control cable to the electrical box.



4. Connect the male connector of the foot control cable to the control panel cable. Reattach the electrical shield.

# **Glove and Tissue Dispensers**

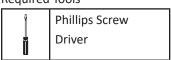
For shipping purposes, the glove and tissue dispensers are not installed on the cabinet. The dispensers are wrapped together with any accessories and the (8) screws are pre-threaded into the mounting holes.

Follow these steps to install the glove and tissue dispensers on the cabinet:

- 1. Remove the dispensers from the wrapping and retrieve the screws from the mounting holes.
- Using a long Phillips-head screwdriver, mount the glove/ tissue dispensers with the openings facing outward with the provided screws.

# 

#### **Required Tools**

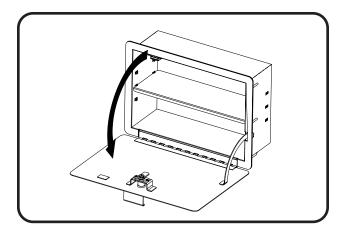


#### **Medicine Lock Box**

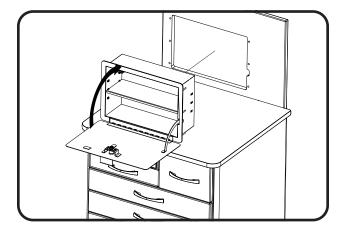
For shipping purposes, the medicine lock box is not installed on the cabinet.

Follow these steps to install the medicine lock box on the back wall of the cabinet:

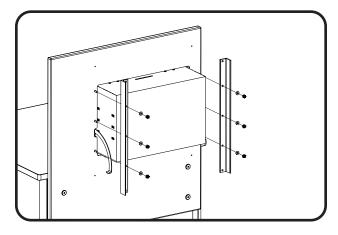
- 1. Remove the medicine lock box from its packaging.
- 2. Open the door of the medicine lock box.



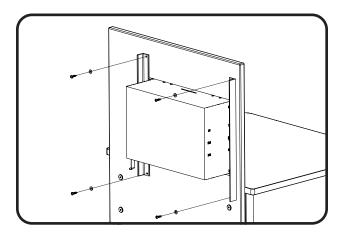
3. Insert the medicine lock box through the pre-cut opening in the cabinet back wall with hinge at the bottom. Then close the door to fit the door stop through the cut-out on the right side of the hole.



4. While holding the medicine lock box in place, align the (2) mounting brackets to the medicine lock box on the back side of the back wall and attach the mounting brackets with the (6) provided lock nuts and (6) washers using a 11/32" socket driver or socket wrench.



 Verify the brackets align with the smaller pre-drilled holes on the back side of the back wall and secure the brackets to the back wall with the (4) provided sheet metal screws and (4) washers.



**Required Tools** 

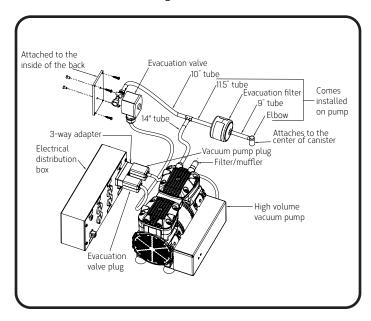
| <u> </u> |                |   |                      |
|----------|----------------|---|----------------------|
| Ŷ        | Phillips Screw | P | 11/32" Socket Driver |
| Ö        | Driver         | Ď | or Socket Wrench     |

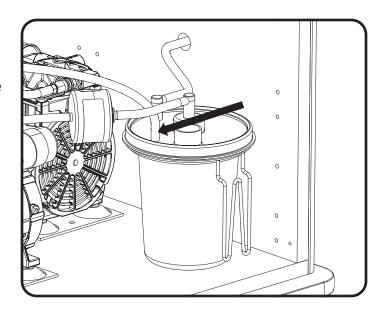


#### **Vacuum Pressure Evacuation System**

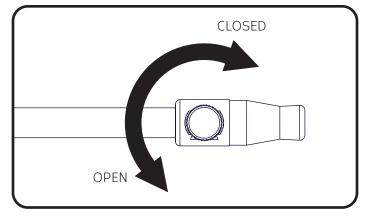
The Vacuum Pressure Evacuation System is primarily used when clinicians are using small tips and the high volume vacuum. Portions of this system are pre-installed at the factory. Follow the following steps to complete the installation procedure:

- 1. Remove the vacuum pump from its box.
- 2. Install the filter/muffler in the indicated position below.
- 3. Remove the 11.5" tube connected to the pump and attach it to the T-connector as shown.
- 4. Attach the 14" tube to the vacuum pump.
- 5. Attach the 9" tube with elbow to the center port of the canister.
- Plug the vacuum pump into the 3-way adapter along with the evacuation valve and then plug the adapter into the electrical distribution box at the location labeled vacuum.
- 7. Place the vacuum pump with the feet inside the circular features of the mounting bracket.





To use dual suction hoses with valves, only one suction tip can be used at a time. The suction tips have a valve that opens and closes with a twist.



#### **Dual Suction Hoses and Valves**

The dual suction hoses and valve option allows a clinician to have vacuum hoses on both sides of the cabinet.

Portions of this option are pre-installed at the factory. Follow the following steps to complete the installation procedure:

- 1. Follow the installation steps for the primary side of the vacuum. See "Unpacking and Set-up" on page 8.
- Attach the tube of the auxiliary vacuum tip to the vacuum canister (without an elbow) to the port on the canister labeled tandem.

# LIST OF ACCESSORIES

| DESCRIPTION  | USE   | RESTRICTIONS  |
|--|---|---|
| Cabinet Foot Control                                 | Provides a foot operated control for the vacuum and pressure.   |   |
| Canister/Bottle Tower                                | Places the canisters and bottles on the backwall instead of counter top.                                      |   |
| Central Pressure and/or Vacuum                       | Allows connection from a central vacuum and/or pressure system to the cabinet.                                | Excludes an internal vacuum and/or pressure pump.   |
| Dirty Instrument Tray                                | Provides a recessed tray for dirty instruments.   |   |
| Dual Suction Hose                                    | Gives the option to have vacuum suction hose on both sides of the cabinet.                                    |   |
| Eliminate Trash Drop Hole                            | Remove the standard trash drop hole in a C or D cabinet.  | Applicable to C & D sized cabinets only.  |
| Endoscope Cold Storage Tubes (Endocaddy)             | Storage tubes which store used endoscope ends. Available in multiple sizes and mountings.                     |   |
| Evacuation Filter                                    | Provides filtration from vacuum canister  |   |
| Glove and Tissue Dispenser                           | Provides a backwall mounted location for glove and tissue boxes.  |   |
| High Volume Vacuum Pump                              | Provides a stronger suction than the standard and is similar to central/wall vacuum.                          | Excludes a standard vacuum pump or central vacuum when ordered.   |
| Instrument Chargers, counter-top or sidewall mounted | Mounts an instrument charger in the desired location.   |   |
| Lift-up Shelf (12" x 12" or 12" x 18")               | Provides additional counter space.  | The 12" x 18" shelf is not available on slim cabinets.  |
| Light Source, LED                                    | Provides a multi-port fiber optic light source recessed inside the front right side.                          | Removes top right drawer. Standard ports are ACMI, Olympus, Storz, and Wolf. Pentax available upon request. |
| Medicine Lock Box                                    | Provides a backwall mounted lock box to secure medicine.  |   |
| Mirror warmer, backwall or counter-top recessed      | Warms mirrors to prevent fogging and can be recessed in the counter-top or mounted on the backwall.           |   |
| Mirror Warming Drawer                                | Warms instruments to prevent fogging.   | Only available in small drawer under the cabinet control panel.   |
| Single or Multi Drawer Locks (RH/LH)                 | Single lock locks top right hand drawer.<br>Left or Right hand mounted multi drawer<br>locks multiple drawers | Does not lock the opposite side drawer.   |
| Solid Surface Counter-top                            | Provides a hard non-porous surface counter-top.   |   |
| Vacuum Pressure Evacuation System                    | Provides a method to relieve excess vacuum pressure build-up.   |   |



## MAINTENANCE



# **!** WARNING/AVERTISSEMENT

There are no user serviceable parts inside. Refer all servicing to a qualified service technician.

Aucune pièce interne ne peut être réparée par l'utilisateur. Adressezvous à un technicien qualifié.



## ∕!\ WARNING/AVERTISSEMENT

The Control of Hazardous Energy (lockout/tagout) 29 CFR §1910.147 procedure must be followed to disable equipment, preventing the release of hazardous energy while performing servicing and maintenance activities.

La procédure de La Maîtrise des Énergies Dangereuses (lockout/ déconsignation) 29 CFR §1910.147 doit être suivie pour désactiver l'équipement, empêchant la libération des énergies dangereuses lors de l'exécution des activités de maintenance et d'entretien.



## /!\ WARNING/AVERTISSEMENT

MTI recommends cleaning the equipment frequently. Follow the current CDC Guideline for Disinfection & Sterilization in Healthcare Facilities or other local guidelines for disinfecting.

MTI recommande de nettoyer l'appareil fréquemment. Suivez les lignes directrices actuelles du CDC pour la désinfection et la stérilisation dans les établissements de santé ou d'autres directives locales pour la désinfection.



## ♠ CAUTION/PRÉCAUTION

This equipment may be damaged by solvents and dyes. Immediately remove any fluids spilled on the equipment.

Cet équipement peut être endommagé par des solvants et des colorants. Retirer immédiatement tout liquide renversé sur l'équipement.

## ♠ CAUTION/PRÉCAUTION

Any sprayed disinfectant or cleaning solution should be wiped up immediately after application and not let to stand. A small sample area should be tested before any large application of any cleaner/ disinfectant.

Tout désinfectant pulvérisé ou solution de nettoyage doivent être essuyés immédiatement après l'application et ne pas laisser reposer. Une petite zone de l'échantillon doit être testé avant toute application complète d'un nettoyant/désinfectant.

## **Cleaning & Disinfection**

Follow the current CDC Guideline for Disinfection & Sterilization in Healthcare Facilities or other local guidelines.

MTI understands that many customers prefer to use a premixed disinfecting solution in a spray or wipe. It is MTI's recommendation not to use sprays because over time the overspray will cause damage to the surfaces if not immediately wiped up. See "MTI Suggested Disinfectants Policy" for more details on disinfecting solutions which have been tested on MTI's products. It is available for download at www.mti.net/ DisinfectantsPolicy. In the U.S. & Canada, call (888) 520-4998, or International call (801) 875-4998, or email customer.service@ mti.net to request a copy.

#### **Plastic Laminate**

A quality grade of plastic/vinyl cleaner like SD-20 or a mild detergent in warm water with a soft cloth should be used to clean all the laminate surfaces. For a disinfectant, use a combination of 10% household bleach and 90% water. Make sure to dry with a soft cloth.



# 

Acidic or abrasive cleaners can damage laminate surfaces. Do not use them.

Nettoyants abrasifs ou acides peuvent endommager le stratifié. Ne les utilisez pas.



# 

Do not leave any moisture on any part of the cabinet for an extended period of time.

Ne laissez pas l'humidité sur toute partie du meuble pour une période de temps prolongée.



# ♠ CAUTION/PRÉCAUTION

When working with betadine, neosynephrine, hydrogen peroxide, silver nitrate, or any other type of harsh chemicals, do not allow it to get on the cabinet surface. If it does get on the cabinet, wipe it up immediately or staining will occur.

Lorsque vous travaillez avec de la bétadine, néosynéphrine, le peroxyde d'hydrogène, le nitrate d'argent, ou tout autre type de produits chimiques agressifs, ne lui permet pas de monter sur la surface du meuble. Si elle ne obtient sur le meuble essuyez-le immédiatement ou coloration se produira.

#### **Stainless Steel**

Stainless steel surfaces should be wiped down with a quality grade of plastic/vinyl cleaner like SD-20 or a mild detergent in warm water with a soft cloth and then a stainless steel polish applied.

#### **Painted Surfaces**

All painted metal parts have been electrostatically painted and the paint is baked on for durability. These surfaces should be wiped down with a quality grade cleaner and a soft cloth or a damp cloth with mild soap once a week.

#### **Plastic Components**

Any plastic component such as well inserts and hose hangers should be cleaned regularly with a quality grade of plastic cleaner.

# ⚠ CAUTION/PRÉCAUTION

Avoid prolonged direct contact with sun to avoid color change of the plastic.

Éviter tout contact direct prolongé avec le soleil pour éviter un changement de couleur du plastique.

#### **Preventative Maintenance**

#### **Vacuum Canister**

The vacuum canister is intended as a disposable item. Do not reuse. When the canister has reached its capacity, the floating valve located at the center of the lid will shut off the vacuum supply to the vacuum hose. The canister should be disposed of in an OSHA approved manner. Additional vacuum canisters can be ordered in varying quantities from MTI, Inc. using part #070008.

#### **Vacuum Tube**

The black latex-free suction tubing should be replaced each time the canister is replaced. Extensive use of the tube may cause the tube to crack or clog. Additional vacuum tubing can be ordered in varying quantities from MTI, Inc. using part #025001. To prevent or fix a clogged hose, regularly clean the hose with a warm water and mild detergent solution or saline solution by vacuuming the solution through the hose.

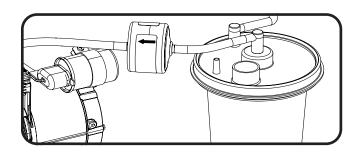
#### Accessories

Check manufacturer's requirements of each individual accessory for maintenance requirements.

#### **Replacing In-Line Evacuation Filter**

Filter life depends on several factors including: ambient air quality, frequency of use and contaminant density. Proper filter maintenance will guarantee optimal performance. Replace the MTI ULPA 250™ when the "Replace If Discolored" indicator ring has discolored or on two month intervals, whichever comes first.

Remove the existing ULPA 250<sup>™</sup> filter by grasping the filter and pulling the tubing off of each end of the filter. Install the replacement filter by pushing the tube exiting the vacuum canister onto the filter's barb with the "FLOW" (direction of flow) arrow pointing away from the vacuum canister and towards the vacuum system. Connect the other tube to the filter's remaining barb.



#### **Calls for Service**

Equipment's model and serial number information are required when calling for service.

Serial number is indicated by the serial number tag.

If service is required, contact MTI.

U.S. & Canada (877) 875-4990 International 1 (801) 875-4990 Fax (801) 952-0548 technical.support@mti.net www.mti.net



#### LIMITED WARRANTY

Medical Technology Industries, Inc. (hereinafter referred to as MTI), shall repair or replace products of its manufacture, which prove to be defective in material and/or workmanship for a period of twelve (12) months from the date of shipment to the customer (the "Warranty Period"). MTI will, at its option, provide parts to the customer or repair the defective part at MTI's factory or authorized repair facility. Except as it may otherwise specifically agree in writing, MTI shall not be liable for transportation or labor charges for repairs or adjustments or other work done on any of its products by MTI's authorized dealers or service organizations.

Customer shall notify MTI of any alleged claim or defect within fourteen (14) days from the date customer discovers, or upon reasonable inspection should have discovered, such alleged claim or defect (but in any event before the expiration of the Warranty Period). All repair parts are warranted for Ninety (90) calendar days from the date of shipment to the customer. Warranty is non-cumulative.

This warranty does not apply to any part or product which upon examination by MTI or its authorized agents indicates the product has been repaired or altered in any way by persons other than MTI or its authorized agents, has been misused, abused or used in a manner contrary to any instructions issued by MTI. Any parts or products claimed under this warranty must be properly packaged by customer and returned to MTI's factory with no liability to MTI for the parts, products or transportation charges thereon.

In no event, shall MTI have any liability for consequential, indirect, incidental, special, exemplary, punitive or enhanced damages, lost profits or diminution in value arising out of or relating to a product defect or the repair or replacement of any products manufactured or sold by it.

THE FOREGOING LIMITED WARRANTY IS MADE IN LIEU OF ALL WARRANTIES EXPRESSED OR IMPLIED, AND MTI MAKES NO OTHER WARRANTY WHATSOEVER WITH RESPECT TO THE PRODUCTS INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

# TROUBLESHOOTING GUIDE

# NOTICE/AVIS

For more information on this equipment, including circuit diagrams, parts and service manuals, and other descriptions, please contact MTI.

Pour plus d'informations sur cet équipement, y compris des schémas de circuits, les manuels de service et pièces, et autres descriptions, s'il vous plaît contacter MTI.

| #  | SYMPTOMS   | PROBLEM CAUSE  | SOLUTION  |
|----|--|--|---|
| 1  | Pressure not working   | No power   | Verify that the cabinet and pump have power. If in doubt, connect the pump directly into a wall outlet.   |
| 2  | Vacuum pump not working  | No power.  | Verify that the cabinet and pump have power. If in doubt, connect the pump directly into a wall outlet.   |
| 3  | Vacuum pump not working  | Canister is full.  | Replace the canister. See "Preventative Maintenance" on page 18.  |
| 4  | Vacuum pump not working  | The hose between the canister and valve is clogged or plugged.   | Clean or replace the hose. See<br>"Preventative Maintenance" on page<br>18  |
| 5  | Vacuum pump not working  | Hose has a kink.   | Pull the hose out and check for any kinks.  |
| 6  | Vacuum pump is working intermittently or shuts off during use. | Constantly turning on and off the vacuum pump builds up a vacuum load where the vacuum can't start up. | Open vacuum line (remove thumb or open valve) and let the pressure escape. A vacuum pressure evacuation system is available if your procedures don't allow you to allow the vacuum pump time to release its load. |
| 7  | Vacuum pump has little or no suction                           | Canister or canister lid is cracked  | Check for cracks, replace if necessary.   |
| 8  | Vacuum pump has little or no suction                           | Canister lid is not secure   | Check the canister lid to make sure that it is tightly secured on the canister and all unused ports are capped properly.  |
| 9  | Vacuum pump has little or no suction                           | Vacuum hose has a leak or is damaged.  | Check the vacuum hose that runs from the canister to the valve for any cracks or holes and replace if needed.   |
| 10 | No power to mirror warmer or other auxiliary accessory         | Blown fuse   | Check the electrical distribution box fuse. See "Electrical Distribution Box" on page 11 for replacement instructions.  |
| 11 | No power to cabinet  | Tripped electrical box breaker.  | Check the breakers on the side of the electrical distribution box. See "Electrical Distribution Box" on page 11 for reset instructions.   |
| 12 | No power to cabinet  | Tripped facility circuit breaker.  | Check facility circuit breaker.   |



# TROUBLESHOOTING GUIDE

# ! NOTICE/AVIS

For more information on this equipment, including circuit diagrams, parts and service manuals, and other descriptions, please contact MTI.

Pour plus d'informations sur cet équipement, y compris des schémas de circuits, les manuels de service et pièces, et autres descriptions, s'il vous plaît contacter MTI.

| #  | SYMPTOMS            | PROBLEM CAUSE | SOLUTION  |
|----|---------------------|---------------|---|
| 13 | No power to cabinet | . 55          | Verify the power cord is plugged into the wall.                   |
| 14 | No power to cabinet |               | Verify that other electrical devices will function in the outlet. |

# **SPECIFICATIONS**

| DESCRIPTION  | SPECIFICATION   |  |   |  |                   |  |
|--|---|--|---|--|-------------------|--|
| Cabinet Size/Type:   | TC100A  | TC100B                                       | TC100C                                  | TC100D                                       | TC75              |  |
| Overall Height (Counter-top to floor)  | 33.75" (85.7cm)   | 41.25" (104.8cm)                             | 33.75" (85.7cm)                         | 41.25" (104.8cm)                             | 33" (83.8cm)      |  |
| Overall Height (w/tall backwall)   | 49" (124.5cm)   | 56.5" (143.5cm)                              | 49" (124.5cm)                           | 56.5" (143.5cm)                              | 48.25" (122.6cm)  |  |
| Overall Height (w/short backwall)  | 38" (96.5cm)  | 45.5" (115.6cm)                              | 38" (96.5cm)                            | 45.5" (115.6cm)                              | 37.25" (94.6cm)   |  |
| Overall Width <sup>2</sup>   | 25.25" (64.1cm)   | 25.25" (64.1cm)                              | 35.75" (90.8cm)                         | 35.75" (90.8cm)                              | 25.25" (64.1cm)   |  |
| Cabinet Depth (Standard) <sup>2</sup>  | 23.5" (59.7cm)  | 23.5" (59.7cm)                               | 23.5" (59.7cm)                          | 23.5" (59.7cm)                               | 23.5" (59.7cm)    |  |
| Cabinet Depth (Slim) <sup>2</sup>  | 20.5" (52.1cm)  | 20.5" (52.1cm)                               | N/A                                     | N/A  | 20.5" (52.1cm)    |  |
| Drawer 1 Size 1,3,4 (D x W x H)  | 17" x 10.5 x 1.75" (43.2 cm x 26.7 cm x 4.4 cm)   |  |   |  |                   |  |
| Drawer 2 Size 4 (D x W x H)  | 10" x 7.25" x 4.5" (25.4 cm x 18.4 cm x 11.4 cm)  |  |   |  |                   |  |
| Drawer 3 Size 1,4 (D x W x H)  | 17" x 19.75" x 2" (43.2 cm x 50.2 cm x 5.1 cm)  |  |   |  |                   |  |
| Drawer 4 Size 1,4 (D x W x H)  | 17" x 19.75" x 3.5" (43.2 cm x 50.2 cm x 8.9 cm)  |  |   |  |                   |  |
| Drawer 5 Size <sup>1,4</sup> (D x W x H)   | N/A   | 17"x 19.75"x 6.5"<br>(43.2 x 50.2 x 16.5 cm) | N/A                                     | 17"x 19.75"x 6.5"<br>(43.2 x 50.2 x 16.5 cm) | N/A               |  |
| Storage Compartment 6 Size (D x W x H)   | N/A   |  | 20"x 9"x 28"<br>(50.8 x 22.9 x 71.1 cm) | 20"x 9"x 35.5"<br>(50.8 x 22.9 x 90.2 cm)    | N/A               |  |
| Current rating (115V) <sup>5</sup>   | 7.5 amps  | 7.5 amps                                     | 7.5 amps                                | 7.5 amps                                     | 7.5 amps          |  |
| Cabinet Weight (varies by options)   | 215 lbs. (98 kg)  | 244 lbs. (111 kg)                            | 244 lbs. (111 kg)                       | 274 lbs. (124 kg)                            | 195 lbs. (88 kg)  |  |
| Shipping Weight (product weight will vary with accessories)  | 270 lbs. (122.5 kg)   | 299 lbs. (136 kg)                            | 299 lbs.(136 kg)                        | 329 lbs.(149 kg)                             | 250 lbs. (113 kg) |  |
| Shipping Size  | 44" x 29" x 66"(112cm x 74cm x 168cm)   |  |   |  |                   |  |
| Fuse   | 5 amp slow blow (5mm x 20mm)  |  |   |  |                   |  |
| Listings   | UL 2601-1 Part 1, CAN/CSA C22.2 No. 601-1 M90 Part1, European GENELEC EN 60601-1. Safety Standards for Medical Electrical Equipment Part 1, and IEC60601-1-2 (2001-09)-Part 1-2 |  |   |  |                   |  |
| <sup>1</sup> Indicated drawer depth is 15" (38.1cm) in slim depth cabinets. <sup>2</sup> Dimensions vary by options chosen. <sup>3</sup> Drawer depth is 10" (25.4 cm) |   |  |   |  |                   |  |

<sup>&</sup>lt;sup>1</sup> Indicated drawer depth is 15" (38.1cm) in slim depth cabinets. <sup>2</sup> Dimensions vary by options chosen. <sup>3</sup> Drawer depth is 10" (25.4 cm) with counter-top mirror warmer option. <sup>4</sup> See "EQUIPMENT FEATURES" on page 6 for drawer number. <sup>5</sup> Actual current used varies due to accessories and options chosen.

# IN-SERVICE CHECKLIST FOR TC100 & TC75 SERIES CABINETS

| Model Number          | Description  |   | Serial Number(s)   |  |
|-----------------------|--|---|--|--|
|                       |  |   |  |  |
| The following i       | n-service has been perform   | ed on my MTI p  | roduct(s):   |  |
| •                     | trols Section<br>ation of the cabinet's vacuum and<br>See "Controls" on page 10.                     | Reviewed Installed A  | ation of Installed Accessories accessories. See "Controls" on page 10. tallation" on page 13.  |  |
| Installed field-insta | Installed Accessories alled accessories such as Glove and Tissue cessories Installation" on page 13. | Reviewed all informa<br>maintenance of the c<br>replacement, evacua | entative Maintenance ation regarding the preventative cabinet, including vacuum hose ation filter replacement, and vacuum d replacement. See "Preventative age 18. |  |
|                       | e to receive occasional emails regard rm at www.mti.net/contact-us.                                  | ling MTI promotions   | and product announcements, fill  |  |

#### THIS PAGE IS INTENTIONALLY BLANK



MTI, Inc. 3655 W Ninigret Drive Salt Lake City, Utah, 84104-6572 800-924-4655 • call/text 801-875-4999 • Fax 801-952-0548

© MTI All rights reserved. MTI reserves the right to make any product changes without notice. The MTI brand and Bear logo design are registered trademarks of MTI, Inc. in the United States.