



USE & CARE GUIDE



Dri-Stor

USE & CARE GUIDE



Read and understand all of the instructions and safety information in this document before operating this product. Go to LogiQuip.com for the latest version.
SAVE THESE INSTRUCTIONS



INTRODUCTION 3

SAFETY PRECAUTIONS 4-5

SYMBOL DEFINITIONS 4

MALFUNCTION INSTRUCTIONS 4

 SAFETY PRECAUTIONS. 5

USE & CARE 6-26

 INITIAL CLEAN & DISINFECTION 6

 OPERATING INSTRUCTIONS FOR HEPA & HEPA CHANNEL PURGE 7

 ENDOTRACK SOFTWARE OPERATION 8-12

 USER INTERFACE 8

 HANGER INFORMATION 9

 SCOPE CHECK-IN 10

 SCOPE CHECK-OUT. 11

 RE-ASSIGN SCOPE. 12

 CHANNEL PURGE OPERATION 13

 SERVICE & MAINTENANCE 13

 CLEANING INSTRUCTIONS 14-18

 PREVENTATIVE MAINTENANCE. 19

 ENDOTRACK SOFTWARE SERVICE & MAINTENANCE 20-21

TROUBLESHOOTING 22-26

Q & A 27

WARRANTY. 28

INTRODUCTION

It is recommended that this document be read carefully by any individual who will be involved in installing, operating, or maintaining LogiQuip Endoscope Storage and Drying Cabinets, or their components as outlined in this document.

Information, instructions, and safety precautions must be followed as indicated to ensure that product referred to in this guide is used under the best conditions, is properly maintained, adheres to local guidelines and that safety can be prioritized.

There are many different guidelines and industry standards for Endoscope Storage and Drying Cabinets. It is recommended to conduct a facility assessment to determine which guidelines and standards are best to follow and include in your department's policies and procedures.

Where used hereafter, Cabinet, Product, or Unit may be considered to refer to any specific Endoscope Storage and Drying Cabinet, components, and/or applicable installed features described in the applicable portion of the document it is used within.

INTENDED USE

LogiQuip Dri-Stor Cabinets are designed to ensure a clean storage location for disinfected Endoscopes and Probes while protecting them from damage while in storage.

Configurations within the product family may also provide added functionality such as moisture control, scope tracking, and other security features. Specific configurations include:

- Negative pressure providing HEPA-Filtered airflow
- Channel Purge mechanisms for removing moisture from internal channels
- Digital tracking and control of scope storage through the addition of EndoTrack with either Barcode Scanner or RFID Reader

All reprocessing steps provided in the Endoscope's instructions for use, including drying steps, need to be completed before placing any device in the Cabinet.

Prior to first use, hospital-grade disinfectant must be used to perform cleaning of the Cabinet, and any tube set accessory product flushed – following the manufacturer's instruction for reprocessing before storing Endoscopes in the Cabinet.

ELECTRICAL SUPPLY

- North America 120 Vac, 60 Hz, 15 Amp Standard Deluxe Receptacle
- Typical Full Load Amperage ~1 Amps
- It is recommended to plug any Cabinet into a dedicated circuit
- Units with EndoTrack should be plugged into an outlet connected to the emergency backup circuit
- Disconnect power whenever servicing the Cabinet, by unplugging the power cord

ENVIRONMENT CONDITIONS

The Cabinets have been designed for use within medical facilities. They are designed to be safe within the following conditions:

- Indoor Use ONLY
- Temperature Range: 15-35°C
- Maximum Relative Humidity: 80% up to 25°C and decreasing linearly to 50% relative humidity at 35°C

SAFETY PRECAUTIONS

SYMBOL DEFINITIONS

The following symbols appear within this manual or on the product to increase visibility of necessary safety precautions, instructions and key information as described below.

	Indicates key detail or reference for instruction, maintenance, compliance, or unique configuration of the product.
	WARNING/CAUTION: Indicates risk of potential personal injury and/or potential damage to device.
	WARNING/CAUTION: Indicates risk of electric shock or burn hazard causing potential personal injury and/or potential damage to device.

MALFUNCTION INSTRUCTIONS

The following symbols appear within this manual or on the product to increase visibility of necessary safety precautions, instructions and key information as described below.

	<p>WARNING: PERSONAL INJURY</p> <p>Please follow all instructions alongside any/all applicable health & safety practices. Please follow all instructions alongside any/all safety protocols and regulations applicable to the location, organization, and workplace environment.</p>
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IN THE CASE OF HAZARDOUS MALFUNCTION:

1. Immediately stop using the device.
2. Use the troubleshooting information on pages 22-26 to determine what is causing the issue.
3. If it is not possible to identify or eliminate the cause using this document, switch the device off and call LogiQuip Customer Support at **(800) 665-3760**.

SAFETY PRECAUTIONS (CONTINUED)

It is the duty of installers, operators, or maintenance persons to ensure that noted information, safety precaution, and instruction is observed alongside applicable regulations when installing, operating, or performing maintenance tasks on any LogiQuip Dri-Stor Drying Cabinets.

- **WARNING** indicates the potential for personal injury
- **CAUTION** indicates the potential for damage to equipment

For emphasis, certain Safety Precautions and informational notes are repeated throughout the manual. It is important to review these before installing, operating, or servicing the unit.

	WARNING: PERSONAL INJURY Product may weigh in excess of 750 lbs. Ensure adequate personnel and equipment is available to perform uncrating procedures. Uncrate on a level floor.
	WARNING: PERSONAL INJURY Do not modify this equipment without authorization from the manufacturer. If this equipment is modified, appropriate inspection and testing must be conducted to ensure continued safe use of the equipment.
	WARNING: PERSONAL INJURY Avoid tipping hazard, ensure product is leveled, and secure when positioning.
	WARNING: PERSONAL INJURY Repairs and adjustments to this equipment should be made only by fully qualified service personnel or verified persons. Maintenance performed by inexperienced, unqualified personnel or installation of unauthorized parts could cause personal injury, invalidate the warranty or result in costly damage.
	WARNING: PERSONAL INJURY This product may only be used with the accessories delivered by or approved by LogiQuip. The use of any other accessories is not verified for safety.
	WARNING: PERSONAL INJURY Please follow all instruction alongside any/all applicable health & safety practices. Please follow all instruction alongside any/all safety protocols and regulations applicable to the location, organization and workplace environment.
	WARNING: LACERATION Always wear safety goggles, safety gloves, and safety shoes when loading, unloading, positioning, or otherwise handling product to avoid injuries.
	WARNING: TRIPPING HAZARD Route the power cord to the receptacle in a position so that it will not be tripped over by personnel in the area.
	WARNING: POSSIBLE EQUIPMENT, PROPERTY DAMAGE, OR HAZARD A step stool must be kept within the immediate area which is sufficient to reach over the Cabinet to access the mains power receptacle on the back at the top to disconnect the power at the source in an emergency situation.
	CAUTION: DAMAGE TO EQUIPMENT Use recommended cleaners only to clean stainless steel and product surfaces. Never use a wire brush, abrasives, or steel wool on the equipment. Do not use chloride on stainless steel surfaces. Chloride based cleaners will deteriorate stainless steel.
	WARNING: ELECTRIC SHOCK Do not access serviceable or live current areas, nor clean near electrical connection points unless until all utilities have been properly disconnected.
	WARNING: ELECTRIC SHOCK Do not replace or use Mains cords with inadequately rated supply. Use only cables labeled for applicable voltage or voltage range, frequency or frequency range, and/or power or current RATING when stated on the label by LogiQuip, and install in the order of the instructions shown. Only cables verified and provided by LogiQuip for a specific Cabinet may be used.

INITIAL CLEAN AND DISINFECTION

All reprocessing steps provided in the Endoscope's instructions for use, including drying steps, need to be completed prior to placing any device in the Cabinet.

Once components have been verified to be running properly, an initial clean must be performed. See section 'Cleaning Methods & Process' for details of approved protocol.

Prior to first use, hospital-grade disinfectant must be used to perform cleaning of the Cabinet, and any tube set accessory product flushed – following the manufacturer's instruction for reprocessing prior to storing Endoscopes in the Cabinet.



WARNING:

Prior to Using Your Drying Cabinet you **MUST CLEAN AND SANITIZE**. Please refer to pages 14-18 for detailed cleaning instructions.

OPERATING INSTRUCTIONS

All reprocessing steps provided in the Endoscope's instructions for use, including drying steps, need to be completed prior to placing any device in the Cabinet.

Once components have been verified to be running properly, an initial clean must be performed. See section 'Cleaning Methods & Process' for details of approved protocol.

Prior to first use, hospital-grade disinfectant must be used to perform cleaning of the Cabinet, and any tube set accessory product flushed – following the manufacturer's instruction for reprocessing before storing Endoscopes in the Cabinet.



WARNING: POSSIBLE EQUIPMENT, PROPERTY DAMAGE, OR HAZARD

A step stool must be kept within the immediate area which is sufficient to reach over the Cabinet to access the main power receptacle on the back at the top to disconnect the power at the source in an emergency situation.

HEPA & HEPA CHANNEL PURGE CABINET OPERATION

ACCESS & STORE SCOPES

To access and store scopes in a HEPA Cabinet or a HEPA Channel Purge Cabinet, open the doors and safely store the scope on one of the available scope hangers inside the Cabinet.

OPTIONAL KEYPAD & LOCKS

If your HEPA Cabinet or HEPA Channel Purge Cabinet is equipped with a keypad security lock, follow the steps below to add, remove access scopes inside the Cabinet.

ADDING USERS - KEYPAD SECURITY LOCK

1. Enter: #9# 123456 on the keypad Enter program mode.
2. Enter 01# XXXX# XXXX# 1# Where 'XXXX' is the users 4-digit access code.
3. To enter '1234' as a user, enter the following: 01# 1234# 1234# 1#.
4. Enter **# Exit program mode.

ACCESS USER AND SUPERVISOR/MAINTENANCE MENUS

The User Menu is accessed by entering '999' into the PIN entry screen, which is accessed by touching the LogiQuip logo in the upper right-hand corner of the touchscreen. The same can be done to access the Supervisor/Maintenance Menu, just by entering '1111' at the PIN entry screen instead of the '999'.

ACCESS SCOPES

After adding the required 4-digit user codes, the Cabinet can now be accessed by keying in the user code.

SET UNLOCK DURATION - KEYPAD SECURITY LOCK

The keypad security system is programmed to remain unlocked for 5 seconds by default. In order to increase the duration the Cabinet remains unlocked, follow the steps below.

1. Enter: #9# 123456 on the keypad Enter program mode.
2. Enter 01# 21# XX# 1# Where 'XX' is the time from 0 – 60 seconds.
3. To unlock the Cabinet for 10 seconds, enter the following: 01# 21# 10#.
4. Enter **# Exit program mode.

ENDOTRACK SOFTWARE OPERATION

EndoTrack is the touchscreen software present on HEPA with EndoTrack, and HEPA with Channel Purge & EndoTrack Cabinets. Scope and user operations within Cabinets configured for tracking with barcode or RFID tags are performed through use of the touchscreen as configured by a supervisor or manager of the department.

USER INTERFACE (Fig. 67)

1. **Access Supervisor/Service Page:** Directs user to the Pin Page.
2. **Manual User Check-In:** Allows user to manually enter ID.
3. **Toggle Cabinet Light:** Allow user to turn Cabinet light ON/OFF.
4. **Hanger Information:** Shows user scope information (Check-in Time, Expiration time, etc.).
5. **Channel Purge Timer:** Allow user to see the remaining drying time for Channel Purge Pumps.
6. **Error & Info Messages:** Notifies users of operations related to the Cabinet such as Error messages, and successful operations.

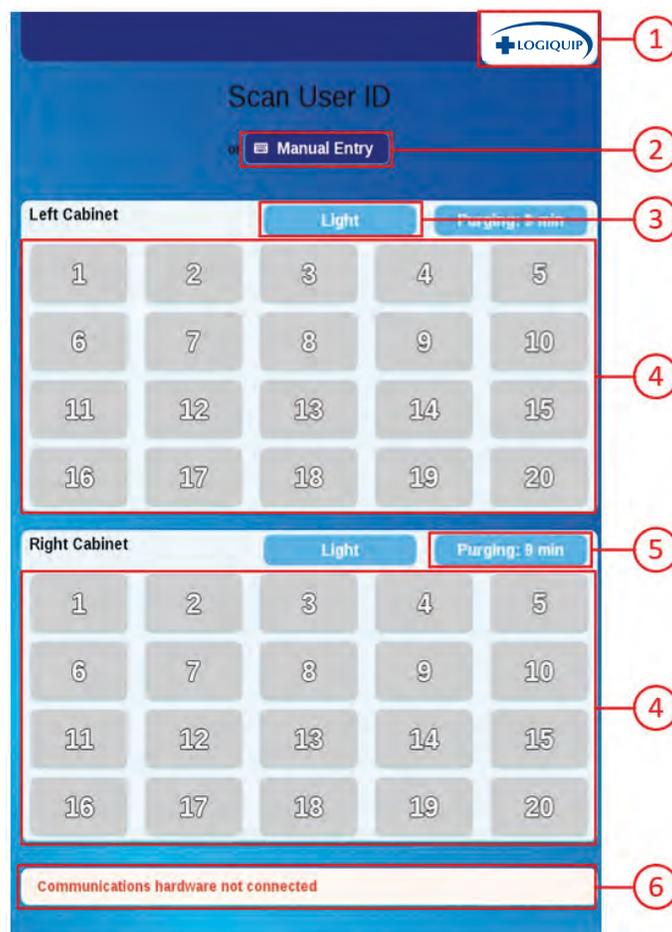


Fig. 67

ENDOTRACK SOFTWARE OPERATION (CONTINUED)

HANGER INFORMATION (Fig. 68)

- 7. Color Code for Checked-In Scopes:
Green: Checked-in Scope, Yellow: Expiry Warning, Red: Expired (Checked-in Scope is expired)
- 8. Exit Hanger Details Screen
- 9. Scope Expiry Duration
- 10. Scope Model
- 11. Expiration Date for Checked-in Scope
- 12. Checked-in Scope ID
- 13. Close Hanger Details Screen
- 14. Scope ID of Removed Scope
- 15. Orange: Scope Removed Scope List
- 16. Remove Scope ID from Hanger

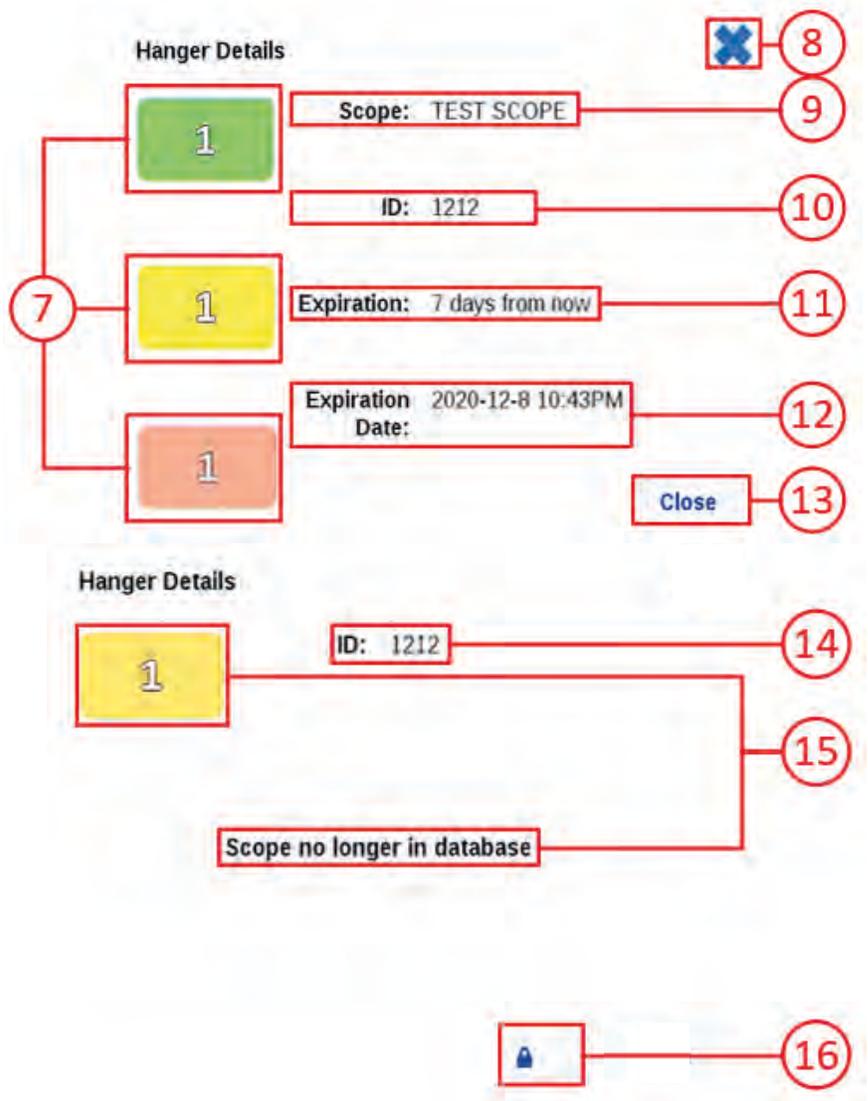


Fig. 68

ENDOTRACK SOFTWARE OPERATION (CONTINUED)

PERFORM SCOPE CHECK-IN

USER AUTHENTICATION & SCOPE CHECK-IN

1. USER AUTHENTICATION: From the Main Menu, scan the Users Barcode/RFID Tag or press the Manual Entry Button to enter the User ID manually, and then press the “Enter” button (Fig. 69-70).
2. SCOPE CHECK-IN: When prompted, scan the required Scopes’ Barcode/RFID Tag or press the ‘Manual Entry’ button to enter the Scope ID manually (Fig. 71-72).
3. Press the Check-In button (Fig. 73), and then select an available hanger (Gray Icons) when prompted to Check in the required Scope (Fig. 74).

	<p>Once the scope has been reassigned, the same user can reassign multiple scopes by scanning the required scopes’ barcode/RFID Tag and repeating Steps 2 & 3 shown above.</p>
	<p>The maximum amount of actions performed by a user should be limited to 5. This includes, checking in/out scopes and re-assigning scopes.</p>

4. Press the ‘Done’ button to complete the Checking-Out process (Fig. 75) and go to back to the Main Page. Hanger numbers that were checked-out will now be gray (Fig. 76).

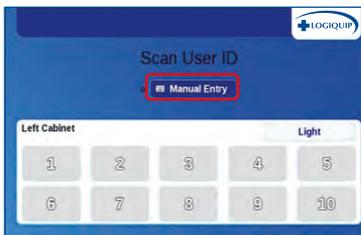


Fig. 69



Fig. 70

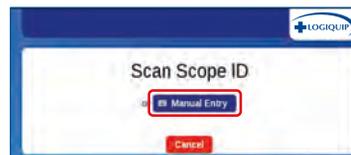


Fig. 71

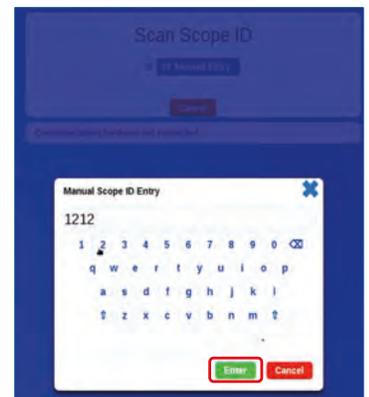


Fig. 72

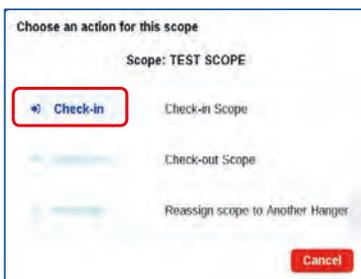


Fig. 73

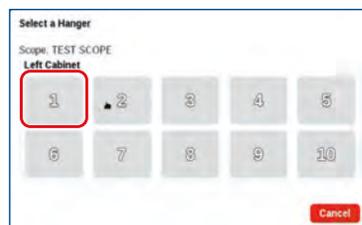


Fig. 74

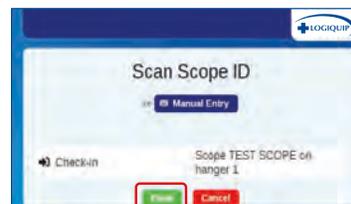


Fig. 75



Fig. 76

ENDOTRACK SOFTWARE OPERATION (CONTINUED)

PERFORM SCOPE CHECK-OUT

USER AUTHENTICATION & SCOPE CHECK-OUT

1. USER AUTHENTICATION: From the Main Menu, scan the Users Barcode/RFID Tag or press the Manual Entry Button to enter the User ID manually, and then press the “Enter” button (Fig. 69-70).
2. When prompted, scan the required Scopes’ Barcode/RFID Tag or press the ‘Manual Entry’ button to enter the Scope ID manually (Fig. 71-72).
3. SCOPE CHECK-OUT: Press the Check-Out button (Fig. 76).

 Once the scope has been checked out, the same user can check out multiple scopes by scanning the required scopes’ barcode/RFID Tag and repeating Steps 2 & 3.

4. CONFIRM SCOPE CHECK-OUT: Press the ‘Done’ button (Fig. 77) to complete the Checking-Out process and go to back to the Main Page. Hanger numbers that were checked out will now be gray (Fig. 78).

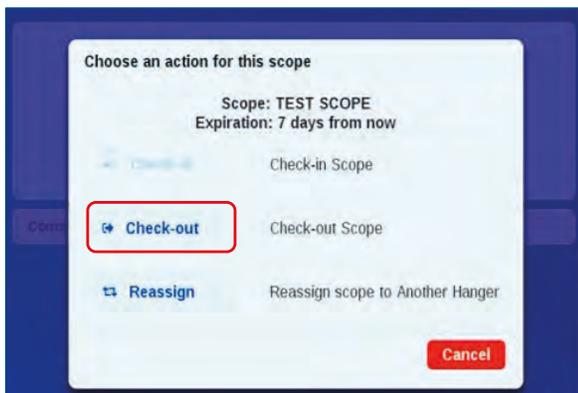


Fig. 76

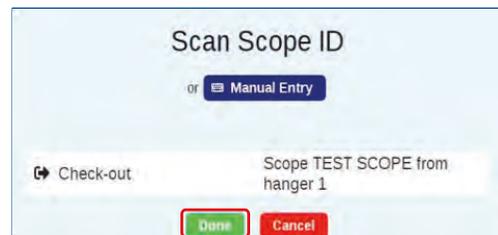


Fig. 77



Fig. 78

ENDOTRACK SOFTWARE OPERATION (CONTINUED)

RE-ASSIGNING SCOPES

It may be required to re-assign a Checked-In Scope to another hanger location without checking it out. Follow the steps provided to re-assign a checked-in scope:

RE-ASSIGN A CHECKED-IN SCOPE

1. **USER AUTHENTICATION:** From the Main Menu, scan the Users Barcode/RFID Tag or press the Manual Entry Button to enter the User ID manually, and then press the “Enter” button (Fig. 69-70).
2. When prompted, scan the required Scopes’ Barcode/RFID Tag or press the ‘Manual Entry’ button to enter the Scope ID manually (Fig. 71-72).
3. **SCOPE RE-ASSIGN:** Press the Reassign button (Fig. 79), and then select an available hanger (Gray Icons) when prompted to re-assign the required Scope. (Fig. 80).



Once the scope has been reassigned, the same user can reassign multiple scopes by scanning the required scopes’ barcode/RFID Tag and repeating Step 2 & 3.

4. Once all scopes have been reassigned, press the ‘Done’ button (Fig. 81) to complete the process. Scopes that were reassigned will be moved to their new hanger location (Fig. 82).

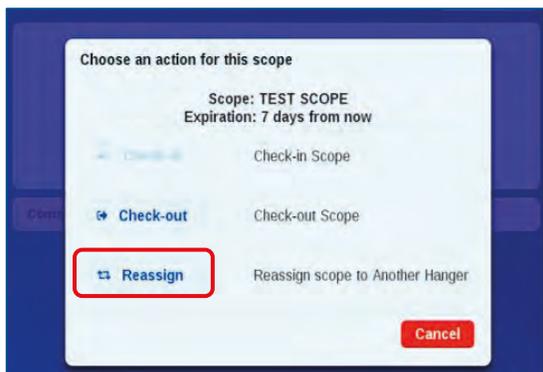


Fig. 79

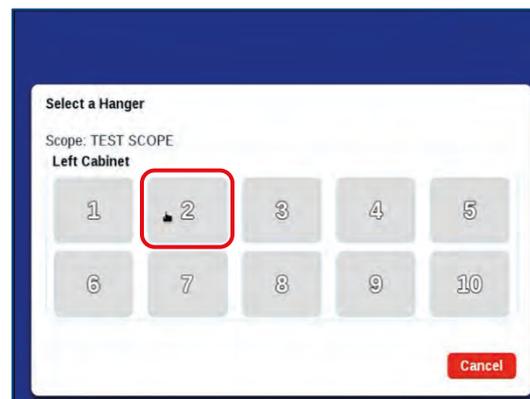


Fig. 80

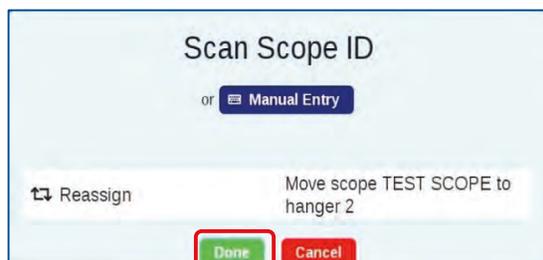


Fig. 81



Fig. 82

CHANNEL PURGE OPERATION

CONNECTING & DISCONNECTING TUBE SETS

1. To connect, push the male quick-connect (Fig. 83) of the reprocessed tube set into the quick disconnect (Fig. 84) located on the ceiling of the Cabinet which corresponds to the appropriate hanger for a matching Endoscope.
2. Connect the other end(s) to the matching Endoscope per manufacturer's instruction.
3. To disconnect a tube set, first disconnect the required tube set from the Endoscope. Then press the metal tab on the quick disconnect to remove the tube set from the Cabinet.
4. Please see LogiQuip's Dri-Stor Tubing Set Installation & User Guide for more information.

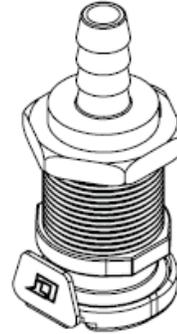


Fig. 83

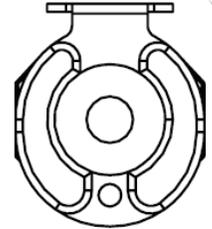


Fig. 84



There is airflow while the Channel Purge Pumps are ON. If there is airflow through a quick disconnect that is not connected with a tube set, press the metal tab to close the port.

SERVICE & MAINTENANCE

SERVICING & ALTERATION

	<p>WARNING: LACERATION Always wear safety goggles, safety gloves, and safety shoes when loading, unloading, positioning, or otherwise handling product to avoid injuries.</p>
	<p>WARNING: PERSONAL INJURY Repairs and adjustments to this equipment should be made only by fully qualified service personnel or verified persons. Maintenance performed by inexperienced, unqualified personnel or installation of unauthorized parts could cause personal injury, invalidate the warranty or result in costly damage.</p>
	<p>WARNING: PERSONAL INJURY Do not modify this equipment without authorization from the manufacturer. If this equipment is modified, appropriate inspection and testing must be conducted to ensure continued safe use of the equipment.</p>
	<p>WARNING: PERSONAL INJURY This product may only be used with the accessories delivered by or approved by LogiQuip. The use of any other accessories is not verified for safety.</p>
	<p>CAUTION: DAMAGE TO EQUIPMENT Use recommended cleaners only to clean stainless steel and product surfaces. Never use a wire brush, abrasives, or steel wool on the equipment. Do not use chloride on stainless steel surfaces. Chloride based cleaners will deteriorate stainless steel.</p>
	<p>WARNING: ELECTRIC SHOCK Do not service or clean equipment until all utilities have been properly disconnected.</p>

LogiQuip accepts hospital-approved cleaning methods and surface disinfectants for Stainless Steel, so long as they do not use a chloride-based disinfectant which will cause stainless steel to degrade. It is recommended to clean the unit a minimum of ONCE per day unless extraneous circumstances warrant further cleaning. For further information on accepted and recommended stainless steel cleaners, please contact Customer Support at **(800) 665-3760** or **CustomerSupport@LogiQuip.net**

CLEANING INSTRUCTIONS

CLEANING THE CABINET

Glass cleaner can be used on the glass part of the doors.

The stainless steel is easily cleaned by many different methods. While some contaminants may be easily removed, others may require specific cleaners for effective removal. It may be necessary to identify the contaminant or experiment with various cleaners.

Frequently, warm water with or without a gentle detergent can be used. Mild household cleaners with non-scratching abrasive powders can be used with warm water, soft bristle brushes, sponges, or clean cloths. Ordinary carbon steel brushes or steel wool should be avoided as they may leave particles embedded in the surface, which can lead to rusting. For more aggressive cleaning, a small amount of vinegar can be added to the cleaning powder. Handle the stainless steel with clean gloves or cloths to guard against stains and fingerprints.

Follow the facility's schedule for the frequency of cleaning the Cabinet. The drip pan can be cleaned as needed with this schedule.

NOTES

- Avoid the use of oily rags or greasy cloths when wiping the surface of the Cabinet
- After cleaning rinse the Cabinet thoroughly, where possible, with water
- When in doubt about the compatibility of a product with stainless, contact the manufacturer of the cleaner to confirm that the product is safe for stainless steel.
- Cleaning with chloride-containing detergents **MUST BE AVOIDED**

FINGERPRINTS AND STAINS

Fingerprints and mild stains can be removed with a glass cleaner. Cleaning should always be followed by rinsing with a soft cloth and clean warm water. When water contains mineral solids, which leave water spots, it is advisable to wipe the surface completely with dry towels.

CLEAN WATER AND WIPES

Soft cloths and clean warm water should always be the first choice for mild stains, loose dirt, and soil. Rinsing with clean water and a dry wipe(s) will eliminate the possibility of water stains.

DISINFECTANTS

If a disinfectant is used, it should be a non-chloride or non-abrasive type, such as alcohol, ammonia, or hydrogen peroxide.

CLEANING INSTRUCTIONS (CONTINUED)

SOLVENT CLEANING

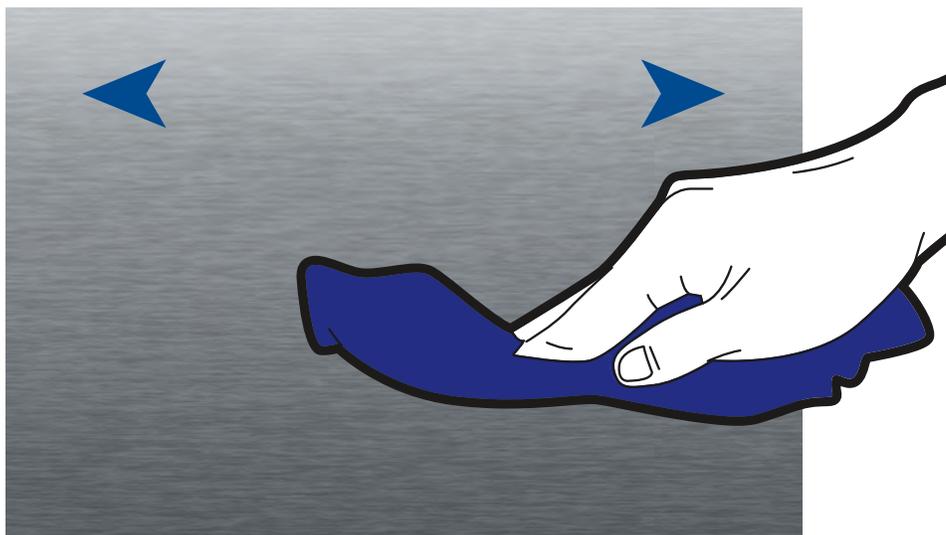
Organic solvents can be used to remove materials that have not had time to oxidize or decompose. Solvents should not contain chloride, such as acetone, methyl alcohol, or mineral spirits. There are many blended organic cleaners that are commercially available. Users are advised to contact suppliers of solvents for information regarding the application on stainless steel.

HOUSEHOLD CLEANERS

Household cleaners fall into two categories; detergent (non-abrasive) and abrasive cleaners. Both are effective for mild dirt, stain, and soil deposits, as well as light oils, such as fingerprints. The abrasive cleaners are more effective but introduce the possibility of scratching the surface. The degree of abrasiveness will vary greatly with the product. Some brands will produce noticeable scratching on only the most highly-polished surfaces. All of these cleaners vary widely with respect to acidity and the amount of chlorine contained. A neutral cleaner that is low in chloride is preferred unless the user is assured that the surface can be thoroughly rinsed after cleaning with warm water and wiped dry with a soft cloth. It is not a guarantee that the product is non-abrasive, non-acidic, or low in chloride even if it states that it is for use on stainless steel. The cleaning method generally employed with these cleaners is to apply to the stainless surface and follow directions closely.

Even the finest cleaning powders can scratch or burnish a finish. On polished finishes, rubbing or wiping should be done in the direction, NOT across, of the polish line or grain of the surface.

GRAIN DIRECTION



FOR BEST PRACTICES WIPE SIDE TO SIDE

CLEANING INSTRUCTIONS (CONTINUED)

GLASS CABINETS RECOMMENDED CLEANING PROTOCOL

LogiQuip recommends disinfectants use on the inside of the Endoscope Cabinet on a weekly basis, or as required by hospital and/or local standards.

1. Ensure the Cabinet has been turned off.
2. Remove all Endoscopes and equipment stored inside the Cabinet.
3. Spray the glass cleaner on the glass doors of the Cabinet and wipe down with a clean, dry cloth.
4. Spray the stainless-steel cleaner on the outside surface of the Cabinets. Wipe down with a clean, dry cloth.
5. Apply or spray the hospital-grade surface disinfectant on the inside surfaces of the Cabinet.

NOTE: Follow the manufacturer's instruction for use. Do NOT use a chloride-based disinfectant.

CLEANING OF CHANNEL PURGE TUBING SETS

At the hospital's discretion, the channel purge Tubing set and connectors can be cleaned by Steam Sterilization, hospital approved Enzymatic detergents or High-Level Disinfection.

- STEAM STERILIZATION: Tubing sets are compatible with steam sterilization at the following parameters: 270°F (132°C), four-minute cycle. Minimum drying time for Tubing sets is 30 minutes before connecting to an Endoscope.
- The Tubing sets should be washed using a hospital-approved Enzymatic cleaner prior to the first use. This is done by flushing, soaking, and rinsing, following the Enzymatic manufacturer's IFU. After the Tubing sets have been properly rinsed, they can be connected to the quick connect manifold in the Cabinet to allow the interior of the Tubing to be air purged dry for 30 minutes prior to connecting to an Endoscope.
- Approved High-Level Disinfectants include Paracetic Acid, Hydrogen Peroxide, Glutaraldehyde, and OPA based disinfectants. Follow the respective HLD manufacturer's IFU for proper use. After the Tubing sets have been properly rinsed, they can be connected to the quick connect manifold in the Cabinet to allow the interior of the Tubing to be air purged dry for 30 minutes prior to connecting to an Endoscope.
- Tubing sets and connectors should be checked regularly for cracks and loss of Tubing flexibility. If any such flaws are found, they should be replaced immediately.



Prior to their first use, all Tubing sets must be washed using a hospital approved enzymatic cleaner. This is done by flushing, soaking, rinsing and following the enzymatic manufacturer's IFU.



Tubing sets and connectors should be checked regularly for cracks, discoloration, and loss of Tubing flexibility. If any such flaws are found, they should be replaced immediately.

CLEANING INSTRUCTIONS (CONTINUED)

While it is recommended that the Main Cabinet HEPA Filter be replaced every two years, periodic cleaning can be done as needed.

CLEANING THE CABINET FILTER

1. Shut off the Cabinet Power Supply.
2. If equipped with a side component Cabinet, use the provided 8mm Allen wrench to remove the mechanical compartment front panel. For Cabinets with components mounted in the top, remove the access or top panel (depending on model).
3. Turn off the switch for HEPA Fan and unplug the power cord.
4. Slide the HEPA housing completely out of the Cabinet and remove the lid by undoing two latches and one screw.
5. Twist the Filter Assembly counterclockwise to unlock the old HEPA Filter.
6. If replacing the HEPA Filter along with its Pre- and Post-Filters, go to STEP 7.
 - a. Remove the Pre-Filter Sleeve by sliding it off the HEPA Filter and replace with the new one.
 - b. Remove the Post-Filter from the opening at the bottom of the HEPA Filter. To insert the new Filter, roll it up, and slide it back into the HEPA Filter.
 - c. Replace the O-Ring on the HEPA Filter.
 - d. Place the old Filters (to be discarded) in a bag and remove to a non-biohazard area.
7. Insert the new HEPA Assembly into the housing, and with downward pressure, twist the Filter Assembly clockwise to relock the Seal and Filter into place.
8. Replace the lid to the HEPA Housing and slide it into the Cabinet.
9. Plug in Fan and turn on the Power Switch to ON.
10. If using EndoTrack, go to the Service Screen to reset the HEPA replacement timer. Refer to the EndoTrack Installation & User Guide.
11. Replace the mechanical compartment front panel, top panel, or shroud. Store the Allen wrench in the hold on the top side of the Cabinet.
12. Turn on Cabinet Power Supply.



Cabin HEPA Filter Box With Top Removed
Twist Cap (To Left) To Access HEPA Filter



Cabin HEPA Filter

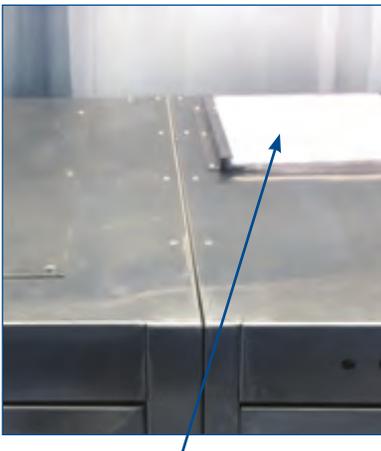


VOC Carbon Filter

CLEANING INSTRUCTIONS (CONTINUED)

REPLACING THE CHANNEL PURGE FILTER

1. Turn off the Power Supply to the Cabinet.
2. Using the provided 8mm Allen wrench, remove the mechanical compartment front panel, if the unit has a side component Cabinet. For Cabinets with components mounted in the top, remove the access panel or top (depending on model).
3. Take the tube off the barb of the Filter and unscrew the base from the Tubing.
4. Replace Filter, by screwing it onto the Tubing and putting the Tubing on the top barb of the filter. CAUTION: Make sure the Filter and threaded fitting are exactly aligned. DO NOT OVERTIGHTEN.
5. Press the RESET button on the Filter Cabinet Control Box. If using EndoTrack, go to the Service screen to reset the HEPA Replacement Timer. Refer to the EndoTrack Installation & User Guide.
6. Replace the mechanical compartment front panel, if the side component Cabinet or cover plate Filters are mounted in the top.



External Filter
(Side Mount Cabinet)



Filter Reset Button - Resets Timer For
Channel Purge Filter Replacement

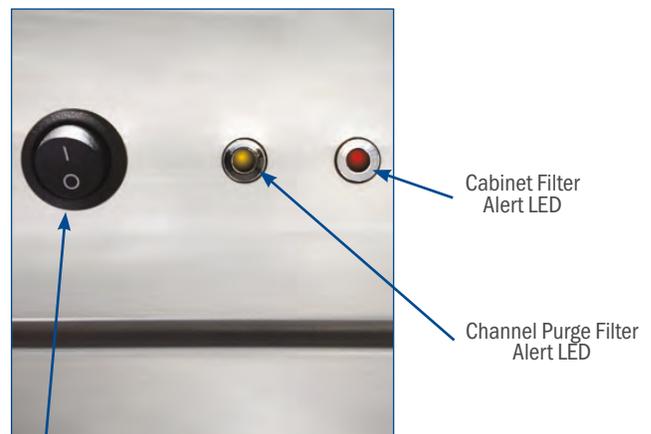


Side Cabinet Removal



Channel Purge
HEPA Filter

Channel Purge Air Pump
(Green or Blue)



Power Button

Cabinet Filter
Alert LED

Channel Purge Filter
Alert LED

PREVENTATIVE MAINTENANCE SCHEDULE



WARNING: PERSONAL INJURY

Repairs and adjustments to this equipment should be made only by fully qualified service personnel or verified persons. Maintenance performed by inexperienced, unqualified personnel or installation of unauthorized parts could cause personal injury, invalidate the warranty or result in costly damage.

Regular service and maintenance **MUST** be performed only by a LogiQuip technician. Any work performed by inexperienced or unqualified persons or the installation of unauthorized parts could cause personal injury, invalidate the warranty or result in costly damage.

Preventive Maintenance is essential in keeping this equipment in optimal working condition. LogiQuip recommends establishing an annual maintenance agreement with LogiQuip service. Please contact your LogiQuip Sales Representative for additional information.

STANDARD

WARRANTY

LogiQuip Dri-Stor Cabinets are covered by a **5-Year Limited Warranty** from date of receipt against defect in materials or workmanship under normal use and service, excluding electronic components. During this period, LogiQuip will, in its sole discretion, repair defects in materials or workmanship that existed when the product was received or replace the product. If the product is replaced, the new product will be warranted for the remaining term of the original product warranty period.

1-Year Warranty on electronic components and sub-assemblies.

2-YEAR

MAINTENANCE + STANDARD WARRANTY

MODEL # LQDS2MP 5-YEAR LIMITED WARRANTY + 24 MONTHS OF MAINTENANCE

- Maintenance Visits Every 6 Months
- Replacement and Consumable Parts
(1) Main Cabinet Filter (40000MFF)
- Inspect Tubing
- Check Operation of Fans and Pumps
- Check Doors and Locks
- Check Levelness of Cabinets

4-YEAR

MAINTENANCE + STANDARD WARRANTY

MODEL # LQDS4MP 5-YEAR LIMITED WARRANTY + 48 MONTHS OF MAINTENANCE

- Maintenance Visits Every 6 Months
- Replacement and Consumable Parts
(2) Main Cabinet Filter (40000MFF)
- Inspect Tubing
- Check Operation of Fans and Pumps
- Check Doors and Locks
- Check Levelness of Cabinets

ENDOTRACK SOFTWARE SERVICE & MAINTENANCE



WARNING: PERSONAL INJURY

Repairs and adjustments to this equipment should be made only by fully qualified service personnel or verified persons. Maintenance performed by inexperienced, unqualified personnel or installation of unauthorized parts could cause personal injury, invalidate the warranty or result in costly damage.

EndoTrack is the touchscreen software present on HEPA with EndoTrack, and HEPA with EndoTrack-Channel Purge Cabinets.

ACCESSING & EXPORTING LOGS (Fig. 85)

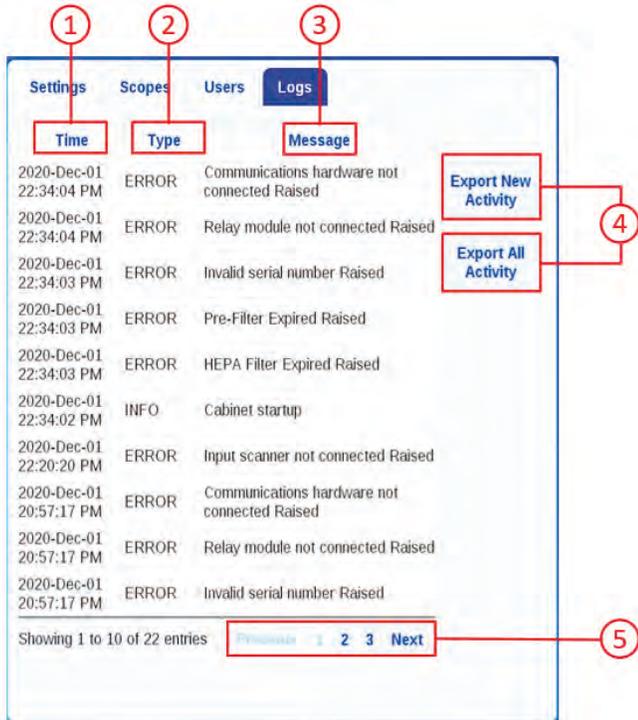


Fig. 85

#	BUTTON	DESCRIPTION
1	Time	Time logged for the activity/message in the following format: [YYYY-MM-DD HH:MM: SS AM/PM]
2	Type	INFO: Message displayed when Cabinet operation has changed ERROR: Message displayed if Cabinet is not operating as intended
3	Message	Description of the INFO/ERROR Type.
4	Export New/ All Activity	EXPORT NEW ACTIVITY: Export all logs starting from previous export using a FAT32 formatted USB EXPORT ALL ACTIVITY: Export all logs from Cabinets initial start up using a FAT32 formatted USB
5	Previous/ Next	See the Next/Previous set of logs

ENDOTRACK SOFTWARE SERVICE & MAINTENANCE (CONTINUED)

UPDATING SOFTWARE



The USB should be formatted to FAT32 and should only contain the Update key.

1. Insert the provided USB containing approved update files into a USB port.
2. Press the Logo button on the Top Right of the screen and enter the Service page access code.
3. On the **General Tab**, press the 'Apply USB Update' button (Fig. 86).
4. The software will restart automatically once the update is complete.

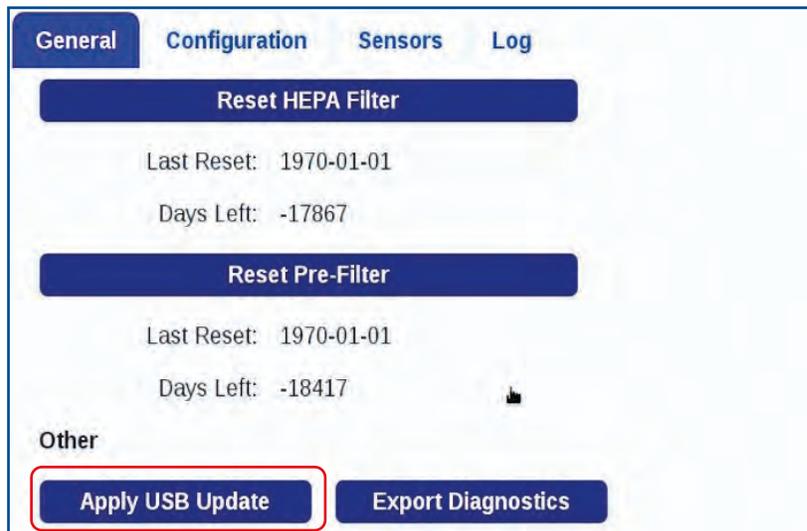


Fig. 86

TROUBLESHOOTING INFORMATION

**WARNING: PERSONAL INJURY**

Repairs and adjustments to this equipment should be made only by fully qualified service personnel or verified persons. Maintenance performed by inexperienced, unqualified personnel or installation of unauthorized parts could cause personal injury, invalidate the warranty or result in costly damage.

IDENTIFYING A CABINET THAT IS NOT LEVEL

The leveling of a Cabinet can cause a variety of issues. The issues affect the door locks, door operation, and Cabinet functionality. Below is a list of the frequent issues that are caused because of a Cabinet that is not level.

- Hanging Endoscopes touching each other.
- Door will not fully close at top and bottom or has difficult time closing.
- Rubbing between the bottom of the door near hinge and bottom of door frame.
- Top of door is sticking out.
- Top of door is too high or is rubbing against the top of the door frame.
- Bottom of door is sticking out
- Doors are flat against door frame, but door tops are not aligned
- Entire Cabinet is leaning left/right
- Entire Cabinet is leaning forward/backward.
- Doors are rubbing against each other when opening or closing door
- Gap between both doors and door frame at the bottom of the doors.

To properly utilize the Cabinet, the level is very important. The Cabinet is considered level when:

- Top of the doors are level.
- Doors are flat against the door frame.
- All screws in door hinges are tight.

LEVELING CABINET

This applies to both glass door the storage Cabinets and component Cabinets. Both could require leveling and the steps are the same for both.

TOOLS REQUIRED: Flat-head screwdriver, pry-bar, hammer, or other applicable tools for lifting Cabinet.

1. Remove storage Cabinet drip pan or floor plate in component Cabinet to expose top of leveling feet. Or turn from the exterior with a wrench via the nut.
2. Using a flat-head screwdriver, turn clockwise to raise foot or counterclockwise to lower foot.
3. If leveling foot is difficult to move, use a pry-bar, hammer, or applicable device to gently lift up on Cabinet frame to remove pressure from foot.
4. Once adjusted, re-install drip pan or component Cabinet floor plate.

TROUBLESHOOTING INFORMATION (CONTINUED)

ADJUSTING HINGE

The leveling of a Cabinet can cause a variety of issues. The issues affect the door locks, door operation, and Cabinet functionality. Below is a list of the frequent issues that are caused because Cabinet is not being level.

This applies to the Storage Cabinet. Minor adjustments can be made to the Cabinet hinges to address door and door lock function.

TOOLS REQUIRED: Phillips screwdriver

1. Partially unscrew hinge needing adjustment using a Phillips screwdriver.
2. Manually adjust hinge to left or right.
3. When hinge is in desired position re-tighten all screws.

NOTE: To adjust door upward or downward, partially unscrew all three hinges and re-tighten when the hinge is in the desired location.

NOTE: In some instances, use of a spacer may be recommended. The spacer should be a flat washer that will fit a ¼” diameter bolt.



HARDWARE VISUAL TROUBLESHOOTING IDENTIFICATION TABLE

IDENTIFY TROUBLE	TROUBLE SHOOTING STEPS
Door does not fully close at top and bottom, or has difficult time closing. Rubbing between bottom of door near hinge and bottom of door frame.	<ul style="list-style-type: none"> • Increase gap between door and door frame at bottom most hinge. • Insert spacers behind all hinges to move door away from door frame.
Top of right door is sticking out. Top of left door is too high or is rubbing against top of door frame. Top of right door is too low.	<ul style="list-style-type: none"> • Raise back left Cabinet leg. • Lower front left Cabinet leg. • Raise front right Cabinet leg. • Lower back right Cabinet leg.
Bottom of the right door is sticking out. Top of right door is too high. Top of the left door is too low.	<ul style="list-style-type: none"> • Lower front right Cabinet leg. • Raise back right Cabinet leg. • Lower back right Cabinet leg. • Raise front left Cabinet leg.
Scopes are touching back of Cabinet or each other.	<ul style="list-style-type: none"> • Adjust both front/back legs depending on direction Cabinet needs to be leveled. • Rotate each leg an equal amount to maintain Cabinet level.
Doors are flat against door frame, but door tops are not aligned.	<ul style="list-style-type: none"> • Verify Cabinet is leveled correctly left/ right. • Adjust door hinges left/right.
Entire Cabinet is leaning to left/right. Level tool shows Cabinet is leaning to left/right. Scopes are touching sides of Cabinet or each other. Entire Cabinet is leaning forward or backward. Leveling tool shows Cabinet is leaning forward or backward.	<ul style="list-style-type: none"> • Adjust both left/ right legs depending on which way Cabinet needs to be leveled. • Rotate each leg an equal amount to maintain Cabinet level.
Doors are rubbing against each other when opening or closing the door.	<ul style="list-style-type: none"> • Move doors apart by adjusting one or more door hinges. Start with middle hinge first.

TROUBLESHOOTING INFORMATION (CONTINUED)

TROUBLESHOOTING HEPA CABINET LED LIGHT NOTIFICATIONS

Users/supervisors may use the following information and steps within the scope of approved/operating instructions only. Contact LogiQuip Customer Support prior to action outside the scope of operating instruction in all cases.

NOTIFICATION	INTENDED COMMUNICATION	TROUBLESHOOTING STEPS
Solid Amber LED Light	HEPA Pre-filter is due to be replaced within scheduled maintenance	<ul style="list-style-type: none"> • Schedule replacement HEPA pre-filter • Follow Control Instruction to Reset Timer
Solid Red LED Light	HEPA filter is due to be replaced within scheduled maintenance.	<ul style="list-style-type: none"> • Schedule replacement of HEPA filter. • Follow Control Instruction to Reset Timer
Flashing Amber LED Light	Door sensor (D1 or D2) detects door open for longer than 45 seconds.	<ul style="list-style-type: none"> • Close Cabinet door • Adjust door sensor bracket as needed to align micro-switch with door • Follow instruction to level Cabinet • Verify door sensor connection at control box • Replace door switch
Flashing Red LED Light	Main airflow sensor detects little or no airflow.	<ul style="list-style-type: none"> • Remove any obstruction or impediment to air flow between component Cabinet and storage Cabinet • Verify main HEPA filter fan assembly switch is turned on in bottom of component Cabinet • With main HEPA filter fan assembly turned on, verify voltage at fan • If voltage present and fan is still not turning, replace HEPA filter fan • Verify connection of airflow sensor to control box. • Verify airflow between component Cabinet and storage Cabinet • If airflow is present, replace sensor

NOTIFICATION	INTENDED COMMUNICATION	TROUBLESHOOTING STEPS
HEPA Filter Expiring Soon	There is 14 days or less to HEPA filter counter.	<ul style="list-style-type: none"> • Schedule replacement of HEPA filter.
HEPA Filter Expired	HEPA filter needs replaced.	
Pre-Filter Expiring Doon	There is 14 days or less to the pre-filter counter.	<ul style="list-style-type: none"> • Schedule replacement of HEPA pre-filter.
Pre-Filter Expired	HEPA pre-filter needs replaced.	
Invalid Serial Number	Software does not have a valid serial number set up in service mode.	<ul style="list-style-type: none"> • Input correct serial number in service mode. • CPU issue. Replace CPU.
Communications Hardware Not Connected	CPU does not recognize communication from GPIO board for longer than five seconds.	<ul style="list-style-type: none"> • USB connection issue. Repair USB connection. • Board failure. Replace board. • CPU failure. Replace CPU.
Relay Module Not Connected	CPU does not recognize communication from relay board for longer than five seconds.	
Input Scanner Not Connected	CPU loses communication with scanner.	<ul style="list-style-type: none"> • USB connection issue. Repair USB connection. • Barcode scanner failure. Replace barcode scanner. • CPU failure. Replace CPU.
Secondary Input Scanner Not Connected	CPU loses communication with a secondary scanner.	
Door #1 Alarm	Door switch (D1) detects door open for longer than 45 seconds on main storage Cabinet.	<ul style="list-style-type: none"> • Close Cabinet door. • Verify door switch is plugged into control. • Verify Cabinet is level. Adjust level.

TROUBLESHOOTING HEPA CABINET LED LIGHT NOTIFICATIONS (CONTINUED)

Users/supervisors may use the following information and steps within the scope of approved/operating instructions only. Contact LogiQuip Customer Support prior to action outside the scope of operating instruction in all cases.

NOTIFICATION	INTENDED COMMUNICATION	TROUBLE SHOOTING STEPS
Door #2 Alarm	Door switch (D2) detects door open for longer than 45 seconds on Add-On storage Cabinet.	<ul style="list-style-type: none"> • Door switch out of alignment. Adjust door switch with shims. • Door switch failure. Replace door switch.
Left Fan Sensor Low	Fan airflow sensor (F1) reading average value drops to under 300 to main storage Cabinet.	<ul style="list-style-type: none"> • Turn HEPA filter fan power switch ON. • Turn power bar ON. • Replace 5A Cabinet fuse. • Repair wire/connection. • Replace HEPA filter/pre-filter or VOC filter. • Replace HEPA filter fan. • Inspect hose/connections for leaks. Replace hose/secure connections as needed. • Verify connection of airflow sensor to F1 to control box. • Replace sensor as needed
Right Fan Sensor Low	Fan airflow sensor (F2) reading average value drops to under 300 to Add-On storage Cabinet.	
This Page is Not Working	CPU has an internal communication error.	<ul style="list-style-type: none"> • Hold power button on CPU down until reset option appears on touchscreen. • Hard reset CPU by holding down power button on CPU unit CPU turns off. • Press button again to power CPU. • If this fails to correct the issue, call LogiQuip Customer Support.
Left Channel Purge 1 Sensor Low	Channel Purge sensor (PL1) does not detect pressure or a change in pressure when Channel Purge Pump 1 is activated.	<ul style="list-style-type: none"> • Verify Tubing is connected to Channel Purge pump and sensor. • Verify Channel Purge Tubing is not kinked or damaged. • Check Channel Purge Tubing and air manifolds for air leaks. • Verify operation of Channel Purge pump. • Sensor failure. Replace sensor.
Left Channel Purge 2 Sensor Low	Channel Purge sensor (PL2) does not detect pressure or a change in pressure when Channel Purge Pump 2 to main storage Cabinet is activated.	
Right Channel Purge 1 Sensor Low	Channel Purge sensor (PR1) does not detect pressure or a change in pressure when Channel Purge Pump 1 to Add-On storage Cabinet is activated.	
Right Channel Purge 2 Sensor Low	Channel Purge sensor (PR2) does not detect pressure or a change in pressure when Channel Purge Pump 2 to Add-On storage Cabinet is activated.	
Network Server Error	Cabinet is unable to connect to server.	<ul style="list-style-type: none"> • Verify Ethernet cable is connected to Cabinet and facility. • Verify Ethernet cable is plugged into CPU. • Verify with facility Ethernet port is active.
Scope Import File Not Found	CPU does not recognize a valid scope file to import.	<ul style="list-style-type: none"> • Verify scope file is saved on USB as Scope.csv • Verify Scope.csv file is saved on USB and not saved into a folder on USB.
Scope CSV File Could Not Be Imported	CPU recognizes CSV file but there is an issue with the file.	<ul style="list-style-type: none"> • Scope.csv file is corrupted. • Copy and paste scope csv file into a new file and save as Scope.csv.
Scope File Failed To Export	Scope file fails to export from CPU.	<ul style="list-style-type: none"> • Insert a USB into available USB port. • Use a different USB port. • Use a different USB.
User Import File Not Found	CPU does not recognize a valid user file to import.	<ul style="list-style-type: none"> • Verify user file is saved on USB as Employee.csv. • Verify Employee.csv file is saved on USB and not saved into a folder on USB. • Employee.csv file is corrupted. Copy and paste user CSV file into a new file and save as Employee.csv.
User Csv File Could Not Be Imported.	CPU recognizes CSV file but there is an issue with the file.	<ul style="list-style-type: none"> • Employee.csv file is corrupted. Copy and paste user CSV file into a new file and save as Employee. csv.
User File Failed To Export.	User file fails to export from CPU.	<ul style="list-style-type: none"> • Insert a USB into available USB port. • Use a different USB port. • Use a different USB.

TROUBLESHOOTING HEPA CABINET LED LIGHT NOTIFICATIONS (CONTINUED)

Users/supervisors may use the following information and steps within the scope of approved/operating instructions only. Contact LogiQuip Customer Support prior to action outside the scope of operating instruction in all cases.

NOTIFICATION	INTENDED COMMUNICATION	TROUBLE SHOOTING STEPS
Unknown Scope Scan '%s'	A scope barcode that is not in Cabinet library is scanned.	<ul style="list-style-type: none"> Manually enter scope barcode number into Cabinet scope library. Review scope library and verify scope is listed. If scope is not listed, load scope barcode scope library.
Unknown Scope Entry '%s'	A scope ID that is not in Cabinet library is manually entered.	<ul style="list-style-type: none"> Scan scope barcode. Review scope library and verify scope is listed. If scope is not listed, load scope barcode into Cabinet library.
Unable To Add New Scope: No Scan Code	Supervisor is trying to add a new scope and does not enter a valid scope ID.	<ul style="list-style-type: none"> Enter a scope with valid scope ID.
Unable To Add New Scope: Scan Code In Use	Supervisor is trying to add a new scope and scope ID is already in Cabinet library.	<ul style="list-style-type: none"> Change scope ID to an unused ID.
Unable To Add New User: No Scan Code	Supervisor is trying to add a new user and does not enter a valid user ID.	<ul style="list-style-type: none"> Enter a user with a valid User ID.
Unable To Add New User: Scan Code In Use	Supervisor is trying to add a new user and user ID is already in Cabinet library.	<ul style="list-style-type: none"> Change User ID to an unused ID.
Unknown User Scan	A user barcode that is not in Cabinet library is scanned.	<ul style="list-style-type: none"> Manually enter user ID. Review user library and verify user ID is listed. If user is not listed, load user ID into Cabinet library.
Unknown User Entry	A user ID that is not in Cabinet library is manually entered.	<ul style="list-style-type: none"> Scan user ID. Review scope library and verify user ID is listed. If user ID is not listed, load user ID into Cabinet library.
Activity File Failed To Export	Activity log fails to export from CPU.	<ul style="list-style-type: none"> Insert USB into available USB port. Use a different USB port. Use a different USB.
No Activity To Export	No new activities have been recorded since last report.	<ul style="list-style-type: none"> Perform new activity for the logs. CPU issue. Reboot CPU.
Export Task Already Running	Export button is pressed while Cabinet is exporting a file.	<ul style="list-style-type: none"> Allow export to finish.

DRI-STOR Q & A

Q: What is the Power Consumption of Dri-Stor Cabinets?

A: HEPA Fan Motor assembly draws about 1 Amp. A single Channel Purge Pump draws a little less than 5 Amps. (10 Amps for 16 & 20 capacity units). EndoTrack components draw 1 Amp.

Q: How much heat do Dri-Stor Top- and Side-Mount Cabinets emit?

A: The cabinets, as a closed system, do not generate heat (BTU's). Individual components are estimated to be [fan 8.5 BTU/HR; Pumps 87.5 BTU/HR]. In bench testing, air input and output remained equal.

Q: Does a Top- or Side-Mount Dri-Stor Cabinet make more noise?

A: NOISE – Both configurations are less than 54db (well below required Health & Safety noise level requirements).
VIBRATION – Purge Pumps have rubber foot pads that aid in dampening any potential vibration. If any vibration is present it is minimal and has not been shown to transfer down into the Cabinet in Top-Mount models.

Q: Is there any information or a study about whether or not the forced air has any deferential effects on ultra-thin lumens?

A: Per scope manufacturer IFU, Endoscopes cannot have more than 20 PSI down the channels (air or liquid). Dri-Stor Purge Pumps generate no more than 8 PSI in total.

Q: What is the drying time for Tubing Sets if steam sterilization is used?

A: It is recommended that hospitals follow typical protocols for cycles of 270°F at 4 minutes, with a drying time of 30 minutes (270/4/30). NOTE – The cleaning regimen or SOP for cleaning of Tube Drying Sets is at the discretion of the facility.

Q: Is there a list of Scopes that have been validated for use in a Dri-Stor Cabinet?

A: No there is not a list of Scopes that has been validated for use in a Dri-Stor Cabinet. The OEM connectors that are used for tubing sets come from the respective Endoscope manufacturers, and used with their blessing.
NOTE – To our knowledge, we are not aware of any Endoscope Cabinet that has a scope validation list.

Q: Is there a battery back-up for a HEPA Fan and/or a Purge Pump?

A: To date, we have not been asked to provide UPS (uninterruptible power supply) system for these components, but it could be possible with an Accessory upgrade package.

Q: Is there remote access to Dri-Stor Cabinets?

A: All Dri-Stor Cabinets have the infrastructure for this future capability (remote access). Development teams are working on this concept of connectivity. Cyber-security and having the proper server to support this feature are the main concerns and research topics to-date.



LIMITED 5-YEAR WARRANTY

LogiQuip products are covered by a Limited 5-Year Warranty from date of receipt against defect in materials or workmanship under normal use and service, excluding Electronic components, Cart Covers, Custom Products, LogiCell Tambour Doors, Label Holders, and Casters. During this period, LogiQuip will, in its sole discretion, repair defects in materials or workmanship that existed when the product was received or replace the product. Visit [LogiQuip.com/Warranty](https://www.logiquip.com/Warranty) for more details.

CUSTOMER SERVICE

If you have any problems with your Dri-Stor Cabinet, please contact our Customer Service Department at:

PHONE: **(800) 665-3760**

EMAIL: CustomerExperience@LogiQuip.net

ABOUT US

Healthcare exclusive since 1992, LogiQuip's Inventory Management Solutions are designed for Healthcare Professionals looking for a better way to manage supply chain tasks. With Expert Advice, Innovative Solutions, and 360 Service that doesn't stop after the sale, LogiQuip's sole purpose is to ensure Healthcare Professionals have the supplies they need when they need them. Partnering with you to design and implement the right solutions, we give you time back to focus on what's important, Patient Care.