



A **DOVER** COMPANY

Frame and Door
Installation Manual
Pass Thru Series
Rev. C - 2022






	Applicable Models
Pass-Thru Series	103B, 103N, 403B, 403N, 403I, 403W, 213Z, 23ZN, ELC3, EL13, 103T



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Anthony products identified in this manual are designed and certified to meet  or  for safety, and  for sanitation standards.

European products meet  requirements.
Each customer is responsible for final site approval.

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1. PRELIMINARY CONSIDERATIONS FOR DOOR AND FRAME SERVICING PROCEDURES

1.1. Safety

Proper safety equipment includes:



Safety Glasses



Work Gloves



Work Shoes



NOTE: Turn off all electrical power prior to beginning work on the door or on any electrical equipment. Use extra caution when working with or around the door glass package.

NOTE: Do Not use power tools for the following procedures.

1.2. Tools

- Tools required for this procedure include:
- #2 Phillips-head screwdriver
- Flat-head screwdriver
- Needle-nose pliers
- 7/16" and 1/2" Hand Wrench
- Wire stripper and cutter
- Heat Gun
- Plywood Shims
- 4 to 6 Foot Level
- NSF Approved Silicone Sealant
- Rubber or plastic mallet
- 5/32" Hex Key
- Soldering iron
- Razor Knife
- Measuring Tape

1.3. Tips

- Complete replacement of wire assemblies is recommended whenever required. Splice wires only if necessary, using proper materials: such as electrical tape, wire nuts, flux core solder and heat shrink.
- Apply liquid soap to rail plastic covers and gaskets upon installation to facilitate insertion into mounting grooves.
- Keep doors and frames clean for product efficiency. This can also help reduce energy consumption and potential health hazards.
- Whenever binding gasket or plastic parts, use food grade silicone.
- Always use the correct tool for the job to be performed. This ensures proper installation and minimizes safety risks.
- If there is any doubt about the work to be performed, consult with a certified technician or Anthony representative.
- Preventative maintenance is recommended to ensure product longevity.

2. FRAME INSTALLATION AND SERVICE MAINTENANCE

2.1 Net Opening and Frame Installation

Read instructions completely before installing the frame. Before installing the frame, confirm that the size of the net opening accommodates the finish frame, net opening should be 1/8" larger than the frame size, this is 1/16" all around equally gap around the frame. If the tolerances exceed 3/8", the net opening will have to be enlarged. Refer to Figure below for clarification.

- Proper framing, insulation, and clearances for openings (case bottom or floor are mandated by local building codes). Ensure that your opening meets these code requirements prior to attempting frame installation.
- Sill net opening height must be at a minimum of two inches.
- Sill, Header and Jack Studs must be completely square, level, and free of any debris that may interfere with frame sitting flush to sill.
- If the gap between the frame and the net opening is greater than 1/16", shim the gap for a proper fit (refer to "Shimming Frame").

2.2 The following instructions will ensure proper frame installation:

1. When installing frame, DO NOT install Frame directly on Sheetrock, frame is designed to be installed to Cooler/Freezer Boxes only
2. Ensure that the Sealing Frame Flap is fully engaged the to Sill, Header, and Jack Studs creating a seal without any gaps (see Figure 2.0)
3. Make sure to DO NOT force the frame if the fit is too tight, doing so may cause you to break the Sealing Frame Flap or tweak the Frame.
4. Insert a mounting screw into a mounting hole in each corner of the frame and tighten each screw until it is approximately a quarter inch from flush.
5. Check the frame is aligned properly or square.
6. Use a measuring tape to measure diagonally one corner to the opposite and note the distance.
7. Measure the distance between the remaining two corners.
8. Both measurements should be the same, or within a 1/16" difference.
9. Confirm the frame and frame flanges are vertically and horizontally aligned (plumb) to the wall surface around the net opening.
10. Place a level on the top flange of the header frame to check if it is horizontally aligned.
11. If the top of the header frame sags or bows, correct as necessary.
12. When the frame is completely aligned, tighten all mounting screws securely until each is flush to the frame surface. DO NOT over-tighten the screws, as this can cause the frame to become out of square.
13. Check entire frame to ensure installation is correct. If needed see refer to "Shimming Frame" section for instructions on how to use shims to align frame properly.

2.3 Shimming Frame

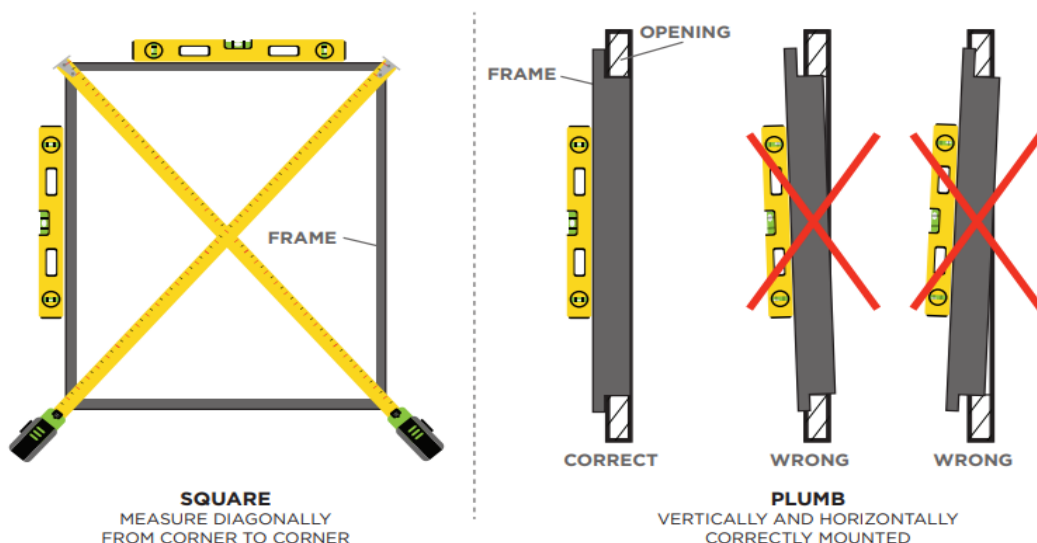
Shimming is only to be used when necessary and will primarily be done at the header (top) of frame and opening. If the gap between the frame and net opening is greater than 1/16", proceed to shim the gap for a proper fit.

If everything is aligned, squared, plumb and gaps do not exceed 1/16" skip the shimming process and proceed to sealing the Frame refer to "Sealing the Frame" below for instructions.

The following instructions will ensure properly shim frame when necessary:

1. Acquire sturdy, penetrable material, such as plywood. The thickness of the material should be wedge shaped and slightly less than the gap to be filled, remember if gap is larger than 1/8" opening must be reduced properly accommodate the frame.
2. When using shims, they must be installed from left to right or top to bottom, PARALLEL to frame width or height.
3. Measure the length of the gap (height or width of frame) and cut the shim material to 1/16 of an inch less than the measured length.
4. Install the shim using the same type of mounting hardware that will be used to install the frame. Be certain that the shim installation hardware will not interfere with the frame installation hardware.
5. If necessary, cut a second shim to the same length and install it in the opposite side of the net opening.
6. If the adjacent sides of the net opening need to be shimmed, repeat the previous steps, matching the shim length to the frame sides of the net opening (less 1/16 of an inch).
7. Shims must NOT be used in a perpendicular manner.
 - A. When the Frame extends past Sill, Header, or Jack Studs ensure that excess shim material does not extend (in depth, i.e. front to back) past the Sill, Header, or Jack Studs (see Figure 2.0, Example 1 in figure below)
 - B. When Sill, Header, or Jack Studs extend past the Frame ensure that excess shim material does not extend (in depth, i.e. front to back) past the Frame (see Figure 2.0, Example 2 in figure below)

If the adjacent sides of the net opening need shimming, repeat the previous steps. Match the shim length to the frame sides of the net opening (less 1/16")

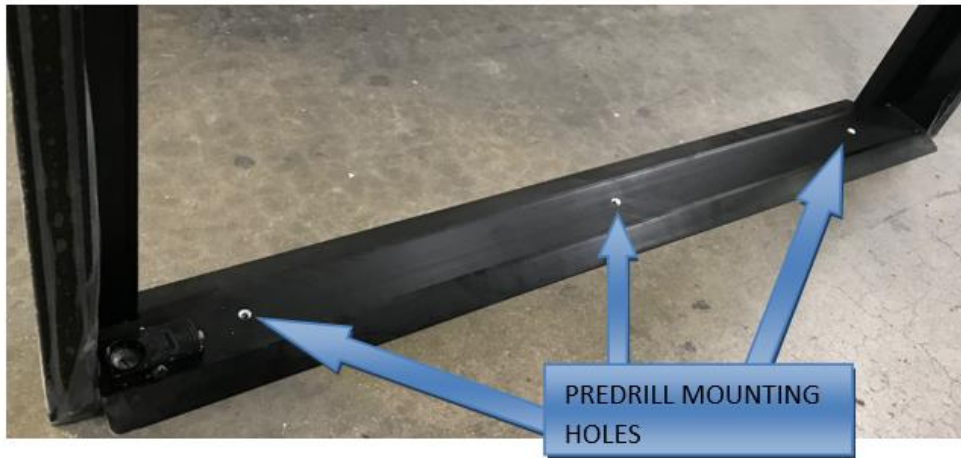


To Install a Pass Thru Frame with Threshold

NOTES:

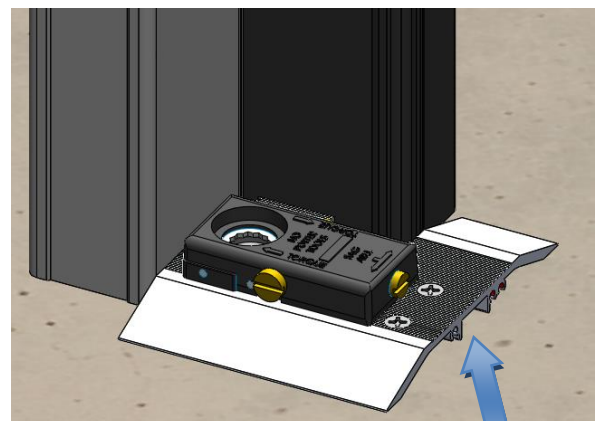
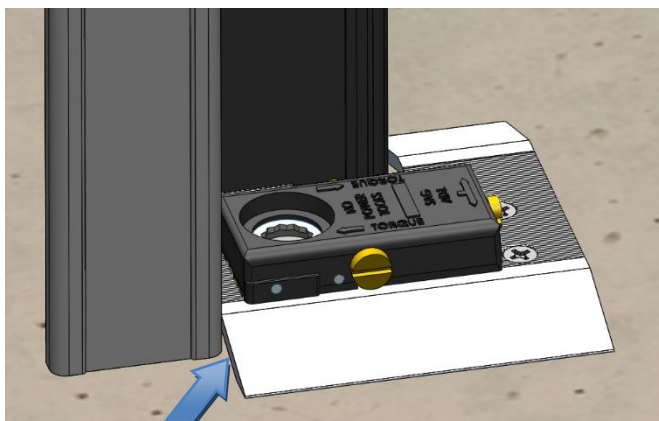
1. If a Roll-A-Way cart is included in the order, it must be behind the door before installing the frame.
2. **Standard Roll-A-Way Application-Roll-A-Way is a permanent fixture of case.**
3. Insert the finished frame assembly into the net opening. DO NOT force the frame if the fit is too tight.
4. Insert a mounting screw into a mounting hole in each corner of the frame and tighten each screw until it is approximately a quarter inch from flush.
5. Check the frame is aligned properly or square. Refer to Figure 2 Frame Installation Reference.
When the threshold is desired, drill and lag on pre-drilled mounting holes only.

NOTE: Use caulk and food grade silicone sealant to seal the gap between the frame and the surrounding wall, inside case, cooler or freezer.



For Cut Threshold

Verify the cut threshold is square and plumb to the rest of the frame before drilling through pre-drilled mounting holes. Refer to Figure 4 Without Threshold.



CAULK EDGES

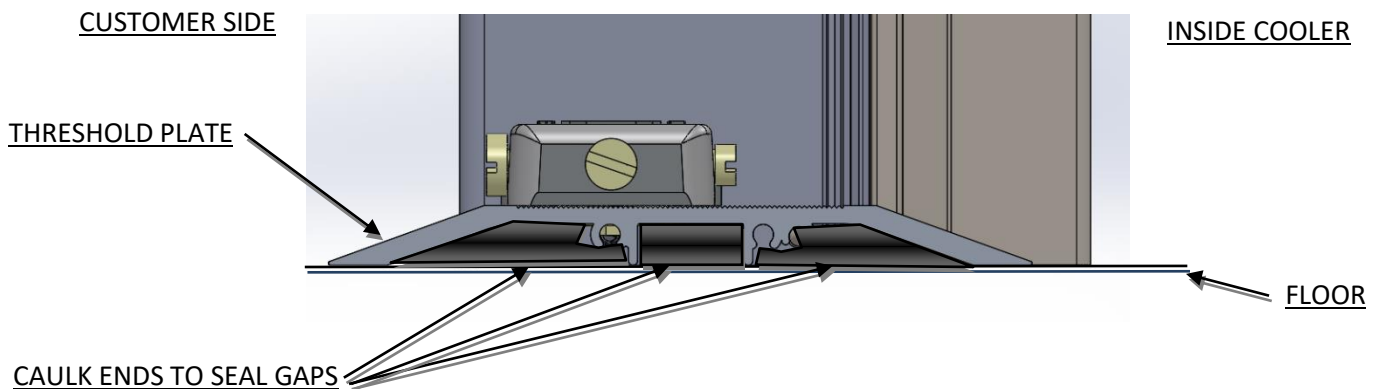
CAULK EDGES

2.4. Sealing the Frame

The electrical connection at the Junction Box where the wires enter the frame, and where the wires enter the raceway in the frame must be sealed with NSF Approved Food Grade Silicone Sealant (RTV-108) at the time of installation. Ensure to seal the gap between the frame and the surrounding wall, inside case, cooler or freezer. Not following these procedures can void Anthony's Service & Warranty on condensation and ice build-up issues. Refer to the Figure 2.0, above for clarification. The following instructions will ensure properly seal the Frame:

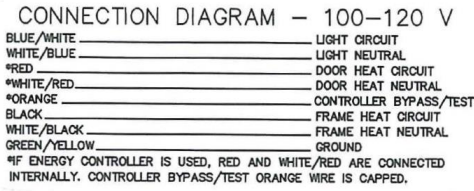
1. Always ensure that you can locate the Foam insert that lines the entire flange around the Frame; DO NOT remove this foam, it is critical to ensure proper insulation.
2. Ensure that the Sealing Frame Flap is fully engaged the to Sill, Header, and Jack Studs creating a seal without any gaps.
3. Ensure that any excess shimming material is removed as instructed above in "Shimming Frame".
4. If your installation is similar to Example 1 in Figure 2.0, proceed to seal with Silicone Sealant (RTV-108) as shown.
5. If your installation is similar to Example 2 in Figure 2.0, proceed to seal with Silicone Sealant (RTV-108) as shown. 6. Follow manufacturer's curing instructions for the Silicone Sealant (RTV-108) to ensure proper use

NOTE: Use caulk and food grade silicone sealant to seal the gap between the frame and the surrounding wall, inside case, cooler or freezer. Not following these procedures can void Anthony's Service & Warranty on condensation and ice build-up issues.



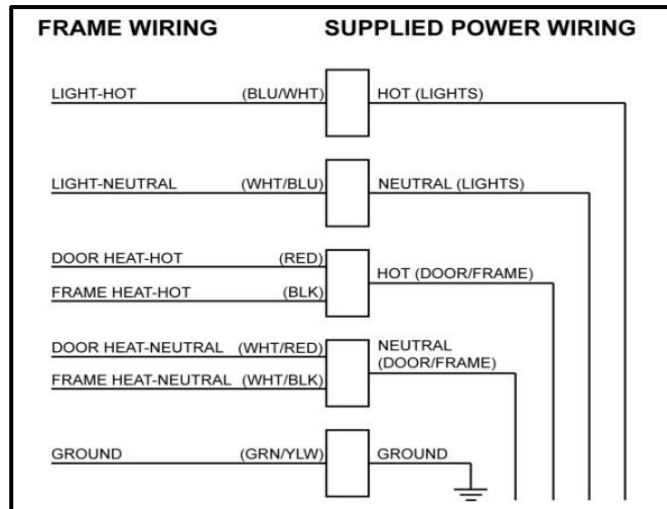
Frame Installation Reference

2.5. Frame Electrical Wiring Connections



Wire Diagram Connection Label

Wiring Diagram

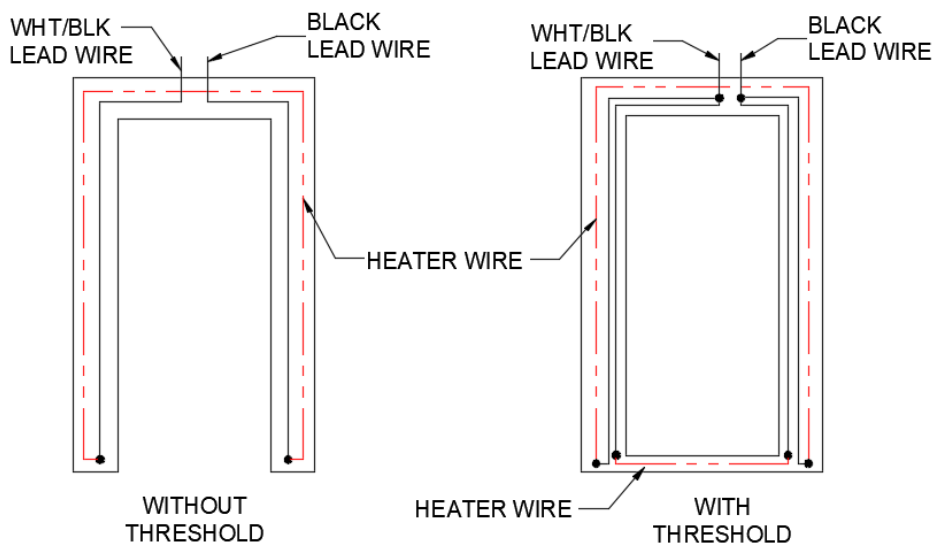


The seven individual wires extending from the flexible conduit atop the frame, provide electrical power to various frame and door functions for the wiring diagram label, affixed to the frame header.

Using wire connectors, these wires should be grouped by the Hot wires (Circuit wires), the Neutral wires and the ground wire for connection to either the facility or the case power.

- Blue/White wire connects to the supplied Hot (or Lights Circuit Wire).
- White/Blue wire connects to the supplied Light neutral wire.
- Red and Black wires connect to the supplied Hot (or Door/Frame Heater Circuit Wire).
- White/Red and White/Black wires connect to the supplied neutral wire for Door/Frame Circuit.
- Green/Yellow wire connects to the supplied ground wire.

NOTE: Wiring for lights should have a separate circuit from the door/frame heater wiring circuit.

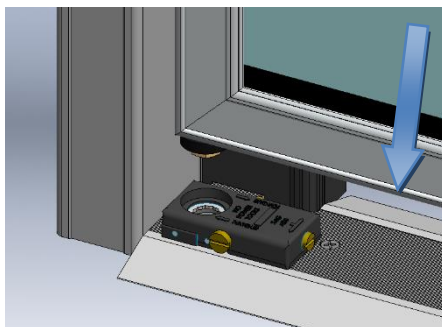


WIRING DIAGRAM

3. DOOR INSTALLATION

3.1. To Install the Door Assembly

1. Hold the door on each side, with the handle facing forward. Lift door, align torque rod to insert into TorqueMaster™ socket at base of frame.



Insert Torque Rod

2. Engage door with hinge pin inserted into Gib (hinge pin plug) receptacle at top of frame. Push door into frame until hinge pin snaps in place.



Connect Hinge Pin

3. Insert the hold-open bolt through the elongated hold-open slot.
4. Insert the hold open through stand-off and secure it with a Phillips screw (provided) using a #2 Philips screwdriver. Keep the screwdriver perpendicular to the screw head. Make sure the tip is fully seated into the screw head recess before turning.

Note: DO NOT use power tools to install hold-open screw.



Tighten Hold-Open Screw

5. Set the door tension swing and correct the door alignment by adjusting the TorqueMaster™. (See TORQUEMASTER™ AND SAG ADJUSTMENT.

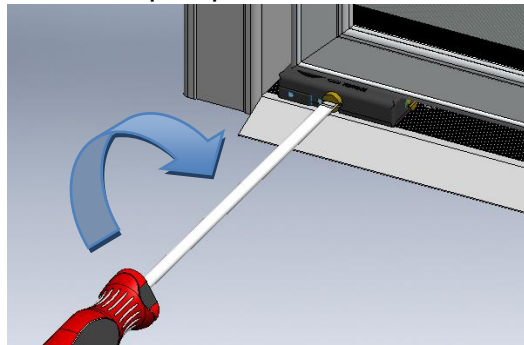
NOTE: Exercise caution when handling the door.

NOTE: DO NOT use power tools when adjusting the TorqueMaster™.

NOTE: DO NOT over tighten hold-open bolt. Verify hold-open does not bind while sliding along the hold-open bolt. Adjust as necessary.

3.2. To Remove the Door Assembly

1. Release tension on TorqueMaster™ with a flat-head screwdriver. Turn the TorqueMaster™ front facing screw clockwise, until the door does not automatically close from an open position.



Release TorqueMaster Tension

2. Open door to access the hold open device, then loosen and remove hold-open using a Phillips #2 screwdriver.

Note: DO NOT use power tools to remove hold-open screw.



Remove Hold-Open

3. Retract the door to a near-closed position.
4. Remove hinge pin plug from frame by inserting top-half of needle-nose pliers into the spring clip grip hole and the bottom half beneath the hinge pin shroud.



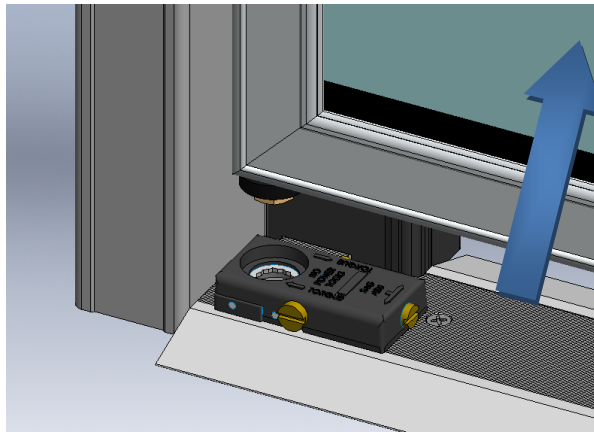
Disengage Hinge Pin

5. Compress pliers to clamp down on hinge pin spring clip, then simultaneously pull the hinge pin away from the frame and pull the door top out.



Withdraw Away From Hinge Gib

6. Lift door out of TorqueMaster™. Secure or lean door on its side against a stable surface.



Withdraw From Frame

3.3. To Reverse the Door Swing

Some doors are reversible. Remove the door from the frame first and then perform the following steps.

3.3.1. Frame

1. To remove Torquemaster, insert flat-head screwdriver into top center cutout in Torquemaster, and turn mounting screw counter-clockwise for less than ½ turn. Lift Torquemaster off frame.



Remove TorqueMaster

2. Pry off (underneath) plug cap from mounting hole, on opposite side of the doorframe with a flat-head screwdriver.



Remove Plug Cap

3. Set Torquemaster on opened mounting hole. Align the flanged corners of the mounting tabs with the SAG ADJUSTMENT screw facing the inside of the frame.



Mount TorqueMaster

4. Use the flat-head screwdriver and turn the TorqueMaster mounting setscrew clockwise for ½ turn, to tighten the mounting flange and lock it in place.

5. Relocate and install the hold-open stand-offs and spacer into the opposite hold-open mount of the same doorframe.



3.3.2. Door

Insert Stand-Off

1. Access the hinge pin wire connections in the rail on the hinge side of the door assembly.
2. Disconnect the Hot, Neutral, and Ground wires of the hinge pin.



Hinge Pin Wire

3. Loosen and remove the hinge pin assembly from the top door rail.
4. Using a plastic mallet and a flat-head screwdriver, remove the torque rod from the bottom of the door assembly.



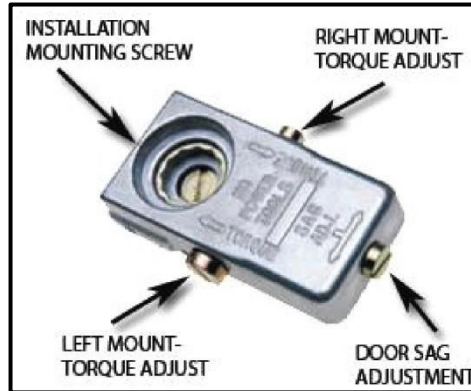
Remove Torque Rod

5. Reinstall the hinge pin and the torque rod into the opposite ends of the door assembly.
6. Reconnect the hinge pin wires and confirm all connections.

7. Check and confirm torque rod and hinge pin are correctly installed.
8. Reinstall the door into the frame per the door installation procedures.

4. TORQUEMASTER™ AND SAG ADJUSTMENT

The TorqueMaster™ regulates the door alignment and the door closing tension.



Remove Torque Rod


1. Use a flathead screwdriver to adjust the torque rod tension, by turning the outside screw on the TorqueMaster™.
 - Turn counter-clockwise to increase tension.
 - Turn clockwise to decrease the tension.
2. Adjust the door sag to square the door in the frame by turning the screw that is marked SAG ADJ. (sag adjustment), on the end of the TorqueMaster™, until the door is aligned square in opening.
 - Turn counter-clockwise to raise handle side of door.
 - Turn clockwise to lower the handle side of door.

Section 5 - Cooler/Freezer* Store Condition Requirements

The installation of Anthony doors in various applications require specific store conditions to achieve optimal performance. Please note that ambient conditions in your store may vary throughout the day. Anthony/ Anthony Doors are built to ANSI/ASHRAE Standard 72-2014 Test Standard. *Cooler/Freezer refers to either a walk-in cooler or freezer; or an LT or NT refrigerated display case.

Table 5.1: Operating conditions

NORMAL TEMP			LOW TEMP	
Family	Model	Operating Conditions	Model	Operating Conditions
401 Series	401N, 403N	75°F, 55% RH AMBIENT / 35°F WALK-IN	401N	75°F, 55% RH AMBIENT / -10°F FREEZER
101 Series	101N, 103N, 101T, 103T	75°F, 65% RH AMBIENT / 35°F WALK-IN	101N, 101T	75°F, 65% RH AMBIENT / -10°F FREEZER
Infinity 90	21ZN, 23ZN	75°F, 65% RH AMBIENT / 35°F WALK-IN	21ZN	75°F, 65% RH AMBIENT / -10°F FREEZER
Infinity 60	I60N	75°F, 65% RH AMBIENT / 35°F WALK-IN	Not Available	
Vista C	VSCN	75°F, 65% RH AMBIENT / 35°F WALK-IN	Not Available	
3300	3300	75°F, 55% RH AMBIENT / 35°F WALK-IN	Not Available	

WARNING	
	<p><i>Stop – Cooler/Freezer and store operating conditions that exceed the required limits may cause condensation and result in sweating of doors. Facility operators should monitor the cooler/freezer and store operating conditions regularly to ensure the required conditions are met.</i></p>

Operating Requirements and Recommendations for Optimal Performance

- Recommend HVAC vents do not blow directly on doors.
- Cooler/Freezer temperature settings must not operate below the recommended temperatures: Refer to Table 6.1 Operating conditions above.
- Evaporators must be equipped with defrost termination control to end the termination early if the coil is cleared. Recommend scheduling defrost during low traffic periods. Adjust the duration of evaporator defrosts according to the manufacturer's recommendations.
- Cooler/Freezer must be regularly inspected for air leaks. Identified air leaks must be sealed. Visually inspect box penetrations and adjoining surfaces: the use of a flashlight is helpful. A smoke stick can be used to validate an infiltration while the cooler/freezer is operating.
- Avoid direct evaporator air impingement on the cooler/freezer door. This can be achieved by ensuring shelves are always fully stocked.
- It is strongly recommended that air deflectors be installed in every evaporator inside the walk-in cooler/freezer. Refer to Figures 1 and 2.

Section 16 And 17 from the instruction 101N you can find the Replacement parts for pass thru model.

6. APPENDIX A - PREVENTATIVE MAINTENANCE GUIDELINES

Introduction

This guideline provides information required to perform recommended and required preventative maintenance to the Anthony doors and frame.

Routine Preventative Maintenance

The following provides information needed to safely perform regular periodical preventive maintenance. Regular preventative inspections will maximize the longevity of your Anthony products. These simple tasks will go a long way in ensuring optimal performance. Depending on maintenance being performed you may need to shut down the door or kill all power to the doors. Refer to your specific door model Installation Manual on how to disengage power. The use frequency of doors will vary from location to location, and the frequency in routine for preventative maintenance will vary for everyone depending on the amount of traffic.

For Anthony products used in harsh or extreme ambient conditions, it is recommended that these inspection intervals be performed on a more regular basis. When issues are found please refer to your specific model's installation and service manual for detailed information on how to replace and re-order needed parts or contact your Anthony representative.

Periodical Inspection Recommendations

Action	Store Conditions	Description
Preventative Inspection	Normal Conditions	Once each quarter (every 3 months)
	<u>Harsh Conditions</u>	Once a month (every 30 days)
Cleaning	All Conditions	Once a month (every 30 days)
<i>Note: These are recommendations based on historical data of other Anthony door products and can vary depending on location, store conditions, store traffic, and other unknown variables.</i>		

Recommendations

Here is an outline of standard recommend Preventative Inspection criteria:

- **Freezer/Cooler Temp & Defrost Settings –**

- Regularly inspect and ensure that ambient conditions are correct*
- Ensure HVAC vents do not blow directly on doors
- Avoid direct evaporator air impingement on the cooler/freezer door. This can be achieved by ensuring shelves are always fully stocked.
- The cooler/Freezer must be regularly inspected for air leaks this can affect the temperature
- Visually inspect box penetrations and adjoining surfaces: the use of a flashlight is helpful

**Refer to the values that pertain to your specific Door Model for Operating Condition values that are required for optimal door performance.*

- **Frame & Door –** Regularly ensure to check for wear/tear on frame and door this can include:

- Ensuring that warning labels and product identification labels are all intact
- Ensure all Bezels are intact and not damaged
- Ensure that Vents are clean and allow maximum Airflow
- Ensure all plastic backs are secured and undamaged
- Handles are secured to the door
- Ensure the door is opening to the angle of 87°
- Rails are intact, not broken, and securely in place

- **Door/Frame Hinging Pin & Receptacle Area –** Regularly ensure to check for wear/tear all hinging parts include:

- Inspect that the Hinge Pin is properly connected with the frame receptacle, **DO NOT** remove the factory installed dielectric grease from the Hinge Pin assembly to ensure the proper function
- Inspect that the Hinge Pin and receptacle are rust/corrosion free, and there is an adequate amount of Dielectric Grease present
- If when replacing or servicing Door and it is removed from the Hinge Pin receptacle, ensure to re-apply dielectric grease before installation of the door
- Anthony recommends applying a minimum of three (3) grams per door Hinge Pin receptacle of its High-performance Dielectric Grease (Refer to the specific door model's installation manual for more detailed instructions on how to apply)
 - Anthony P/N: **98-25497-0001** (approximately 100 grams, sufficient for up to 30 door receptacles).
 - Anthony P/N: **98-25497-0002** (approximately 3 gram packet, sufficient for up to 1 door receptacle).
- Replace any broken or damaged Hinge Pin and ensure to apply an adequate amount of Dielectric Grease
- Visually and mechanically Inspect Hold-Open Arm, Screw, and Spacer for wear/tear/damage and that Screw is secure


- **TorqueMaster™** – To check the TorqueMaster™ is functioning correctly open each door and ensure that the tension makes the door close smoothly and gently on its own. If the door closes either too slowly or rapidly the issue can be fixed by adjusting that Torque Master™ refer to the “Torque Master™ and Sag Adjustment” section for details. If after adjusting the issue is still present the next step is to replace the Torque Master™, refer to the specific door model's installation manual for detailed instructions on replacing.

- **Gaskets** – When inspecting gaskets ensure that they are sealing properly along the entire perimeter of the door. Also, ensure that the gasket is properly inserted into the door plastic groove. Inspect and ensure gaskets are free of cracks, tears, deformities, and hardening.

Cleaning Routine

List of Items that should be cleaned during monthly cleaning routine:

- **General Cleaning** – Regularly clean by wiping down the frame, door rails, bezels, and gaskets by checking for food debris, dust, and other foreign objects that may prevent the door from closing correctly. Use non-abrasive cleaning apparatus (i.e., microfiber cloth) when wiping down frame and door rails.
- **Cleaning Inside Door Glass***: To clean door glass on the inside of the door. We recommend the following cleaners:
 - Windex® Original
 - Windex® Vinegar
 - Fantastik®
 - Formula 409®
 - MicroClean Professional APC®

NOTICE	
	<i>Note – Any cleaner used or listed here MUST be Ammonia Free. Only use cleaners on glass portion of the door. Using harsh chemicals on PVC or ABS plastic portions of door may damage material.</i>

Troubleshooting

PROBLEM / ISSUE	PROBABLE CAUSES / FIXES	FINAL REMEDY
Condensation on Door Glass, Door Rail, or Frame	Fan to Door Proximity too small	Install air deflector
	Evaporator fans blowing cold air directly onto glass/frames	
	Shelves not fully stocked	Stock merchandise
	Door/gasket seal malfunction	See "Insulation or Air Leaks"
	Store conditions (temperature and relative humidity) outside required	Adjust HVAC / Dehumidifier settings to meet required
	Cooler/freezer temperature set too low	Adjust cooler/freezer temperature to design specified
Condensation in between Glass Panes	Seal compromised cause loss of gas or vacuum (check by cleaning the glass on merchandise and customer sides)	Replace door
Rust/Corrosion on Hinge Pin	Excessive moisture from ambient/store conditions	Add Dielectric Grease to Hinge Pin Receptacle Replace Hinge Pin/ add adequate amount of Dielectric Grease
Ice buildup inside Freezer	Air infiltration Box/frame not sealed according to Anthony instructions	See "Insulation or Air Leaks"
Door not closing or sealing	Check gasket to ensure proper installation	Replace gasket
	Check the gasket for damage	
	Check Hold-Open	Replace Hold-Open
	Check TorqueMaster torque (plumb)	Replace TorqueMaster2
	Check TorqueMaster sag	
	Check Frame/Door is square	Replace Plastic Covers
	Check Plastic covers on rails	
	Check Plastic covers on frame mullions	
No Power to Frame	Check Power Supply	Adjust energy controller to Full-On
	Check energy/humidity controller	Replace Power Supply
	Check hinge pin connections	Replace Energy/Humidity Controller
	Check glass wire connections	Replace Hinge Pin
	Check hinge pin wiring	Replace wiring
Low Voltage	Check main voltage	Adjust energy controller to Full-On Replace Frame heater wires
	Check humidity controller	
	Check the Amp draws to the heater wires in the frame	
Door/Gasket Seal - Malfunction	Check gasket	Replace gasket
	Check door mount	Replace hinge pin
	Check Door is square and level	Replace TorqueMaster
Frame not Square or Plumb	Frame not properly shimmed	Use correct Shim to level frame Use rubber mallet to adjust frame plumb within 1/16"
	The frame should be square to within 1/16"	
	The frame should be plumb within 1/16"	
Insulation or Air Leaks	Frame must be properly shimmed, level, and plumb	Seal gaps with approved NSF-approved Food Grade Silicone Sealant per Quick Installation Requirements Guide.
	Ensure encapsulated blue board insulation is present (Thermal Frame with Low Temp and NT High Humidity applications only)	
	Use RTV-108 NSF Approved Silicone Caulk to fill the perimeter of the frame on the refrigeration side (inside the case) and at all frame joints as required so there are no air gaps.	
	Use RTV-108 NSF Approved Silicone Caulk to fill the perimeter of the frame on the refrigeration side (outside the case) and at all frame joints as required so there are no air gaps.	
	Ensure Gap between frame and refrigeration does not exceed 1/8", gaps larger than 1/8" will require additional shimming to reduce gap size before sealing	
	Ensure all electrical conduits are properly sealed to prevent moisture and air from migrating into the box, use RTV-108 NSF Approved Silicone Caulking if necessary	

PROBLEM / ISSUE	PROBABLE CAUSES / FIXES	FINAL REMEDY
Glass condensation	No Power	Check power supply Check humidity controller Check Hinge Pin connections Check glass wire connections Check Hinge Pin wiring
	Low voltage	Check main voltage Check humidity controller
Door/Frame Rail Condensation	No Power	Check power supply Check humidity controller Check hinge pin connections Check door wire connections Check frame wire connections
	Low voltage	Check main voltage Check humidity controller hinge pin
	Door seal malfunction	Check gasket Check door mount wiring
Door saw-toothed	Door or frame not square	Square door to 1/16" Adjust TorqueMaster sag Replace worn hinge pin socket Facility or case not level Frame not properly shimmed Hold-open binding/damaged
Lamp inoperative	Power switch OFF	Turn power switch ON
	Lamp burned-out	Replace lamp
	Lamp failure	Check socket mounting Check socket/lamp connection Check ground wire connection
	Incorrect lamp	Replace with correct lamp
	Ballast failure	Check wire connections Replace ballast
	Incorrect ballast	Replace ballast
	Incorrect wiring	Check ground wire connection Reconfigure wiring Replace wiring
Lamp intermittent or dimming	Incorrect voltage	Match lamp voltage to circuit Match ballast to circuit voltage
	Lamp cover failure	Check cover installation Check mullion lens installation Replace lamp cover
	Defective wiring	Check & replace wiring
	Defective LED Fixture	Replace LED Fixture

7. REVISION HISTORY PAGE

REV	ORIGINATOR	DESCRIPTION OF CHANGE	EFFECTIVE DATE
B	Frank Carbajal	Reformatted and updated instructions, Added next gen frame models	
C	E. Chavez / K. Holst	Added APPENDIX A – See ECn 18492	07/01/2022