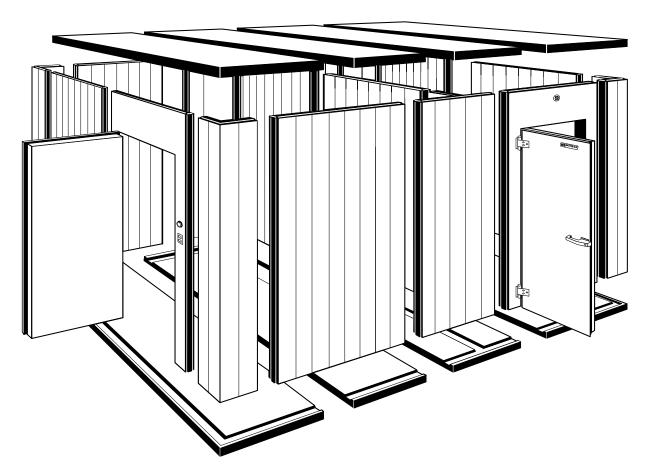


Installation & Operations Manual For Quick Ship, 10-Bilt<sup>®</sup> & Bilt2Spec<sup>™</sup> Walk-In Coolers and Freezers

Bilt2Spec<sup>™</sup> and Ready-Bilt<sup>™</sup> models feature ColdSeal Max<sup>™</sup> heavy-duty doors



908 Highway 15 North • New Albany, MS 38652 • PHONE: 800-684-8988 • FAX 800-232-3966 EMAIL: <u>service@master-bilt.com</u>

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### INTRODUCTION

Thank you for purchasing a Master-Bilt<sup>®</sup> walk-in cooler or freezer. This manual contains important instructions for installing, using, and servicing Master-Bilt<sup>®</sup> walk-ins. A parts list and assembly drawings are also included with your walk-in. Read all of these documents carefully before installing or servicing your walk-in.



Read this manual before installing your walk-in. Keep the manual and refer to it before doing any service on the walk-in. Failure to do so could result in personal injury or damage to the walk-in.



Installation and service of the refrigeration and electrical components of the walk-in must be performed by a refrigeration mechanic or licensed electrician.

The portions of this manual covering refrigeration and electrical components contain technical instructions intended only for persons qualified to perform refrigeration and electrical work.

This manual cannot cover every installation, use or service situation. If you need additional information, call or email us. Please have the serial number of equipment available.

Technical Service Department Master-Bilt Products 908 Highway 15 North New Albany, MS 38652 Phone: 800-684-8988 Fax: 866-882-7629 E-mail: service@master-bilt.com

### WARNING LABELS AND SAFETY INSTRUCTIONS



This is the safety-alert symbol. When you see this symbol on your walk-in or in this manual, be alert to the potential for personal injury or damage to your walk-in.

Be sure you understand all safety messages and always follow recommended precautions and safe operating practices.

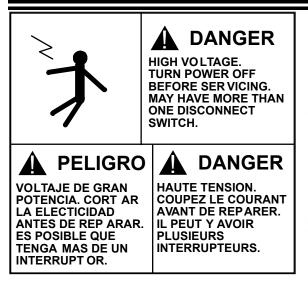


You must make sure that everyone who installs, uses or services your walk-in is thoroughly familiar with all safety information and procedures.

Important safety information is presented in this section and throughout the manual. The following signal words are used in the warnings and safety messages.

- DANGER: Severe injury or death WILL occur if you ignore the message.
- WARNING: Severe injury or death CAN occur if you ignore the message.
- CAUTION: Minor injury or damage to your walk-in can occur if you ignore the message.
- NOTICE: This is important installation, operation or service information. If you ignore the message, you may damage your walk-in.

The warning and safety labels shown throughout this manual are placed on your Master-Bilt<sup>®</sup> walk-in at the factory. Follow all warning label instructions. If any warning or safety labels become lost or damaged, call our technical service department at (800) 684-8988 for replacements.



# **DANGER**

Improper or faulty hook-up of electrical components of the walk-in can result in severe injury or death.

Installation of the refrigeration and electrical components of the walk-in must be performed only by a refrigeration mechanic or licensed electrician.

All electrical wiring hook-up must be done in accordance with all applicable local, regional, or national standards.

All Master-Bilt<sup>®</sup> walk-ins with standard swing doors are equipped with inside emergency door releases so you cannot get locked inside the walk-in even if the door has been locked from the outside. If you have a standard-type swing door it will have one of the following types of emergency releases.

- 1. A **Safeguard inside Release Latch** is installed on all walk-ins with a standard-type door **wider than 42 inches**. This latch release will allow persons inside the walk-in to open the door even if the outside door handle has been locked. To open the walk-in door from the inside, <u>push</u> the latch handle toward the door.
- 2. An **Emergency Door Release** is installed on all walk-ins with a door width of **42 inches or less**. This Emergency Door Release will allow persons inside the walk-in to open the door even if the outside door handle has been locked. To open the walk-in door from the inside, <u>turn</u> the Emergency Door Release knob to the left (counterclockwise) until the door can be pushed open.

#### **IMPORTANT!**

THIS DOOR is equipped with a

#### SAFEGAURD LATCH

With INSIDE RELEASE HANDLE

#### YOU CANNOT BE LOCKED IN...

With either Padlocking or cylinder-locking models. Inside handle will always operated to open the door even if the Latch is locked from the outside.

This label is located near the safety release handle on the interior of Master-Bilt<sup>®</sup> swing **doors wider than 42**". (Some special order doors may differ.)

IMPORTANT! EMERGENCY DOOR RELEASE TURN KNOB CONTERCLOCKWISE TO UNLOCK

This label is located near the safety release knob on the inside of doors 42" or less. (some special order doors may differ.)



# NOTICE TO EMPLOYERS

Never allow small children inside or around your walk-in. They can become trapped inside and be injured or killed.



This label is located below the light switch on the exterior of all Master-Bilt<sup>®</sup> swing doors.

# NOTICE TO EMPLOYERS

It is the owner's responsibility to make sure all employees understand the safety precautions for entering and walking inside the walk-in.

The floor surface and door ramp on your walk-in may become slippery if they get wet, dirty, or greasy. To reduce the possibility of anyone slipping or falling inside the walk-in, Master-Bilt recommends the following:

- Persons entering and walking inside the walk-in should use caution at all times.
- · Non-skid shoes should be worn.
- The floor surface and door ramp should be kept clean and dry at all times.
- A regular schedule for cleaning the floor and door ramp of the walk-in should be established and followed. The cleaning procedure outlined in this manual is recommended.
- Non-skid floor strips or mats should be used on the floor surface and door ramp. These strips or mats can be purchased from Master-Bilt or a local vendor.

### PRE-ASSEMBLY PROCEDURES

#### Inspection for Shipping Damage

You are responsible for filing all freight claims with the delivering truck line. Inspect all cartons and crates for damage as soon as they arrive. If damage is noted to shipping crates or cartons or if a shortage is found, note this on the bill of lading (all copies) prior to signing.

If damage is discovered when the cabinet is uncrated, immediately call the delivering truck line and follow up the call with a written report indicating concealed damage to your shipment. Ask for an immediate inspection of your concealed damage item. Crating material MUST be retained to show the inspector from the truck line.

#### Handling and Set-Up Precautions

It is the responsibility of the installer to use safe unloading, handling, and construction practices. If you have any questions about proper installation of panels or accessories, contact your local sales representative or Master-Bilt.

NOTICE Use material handling procedures appropriate to the job you are doing. Failure to use proper loading or handling procedures or to follow manual instructions can cause bodily injury or damage to your walk-in.

Forklifts used to handle skids or panels must have forks at least four feet long and set far enough apart to adequately support panels or skids (see Figure #1). Forklifts must have the capacity to support panels weighing two pounds per square foot each.

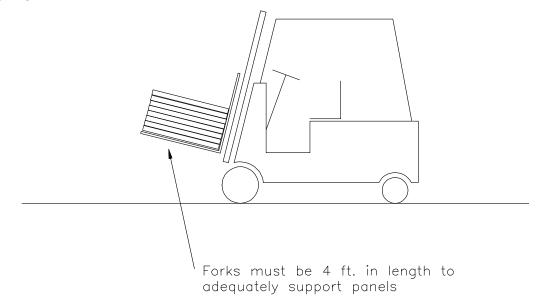
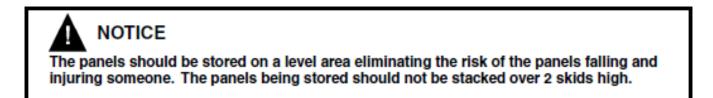


Figure #1

### Panel Storage

When panels must be stored at the job site prior to set-up, it is very important that they be stacked properly.



Whenever possible, store panels indoors. Panels stored indoors may be stored in their original factory packaging. If it is necessary to store panels outdoors, stack them vertically on skids, with spacers between the panels. This protects the panel edges and provides proper ventilation. This method of stacking permits drain-off of moisture and guards against rust stains (see Figure #2).

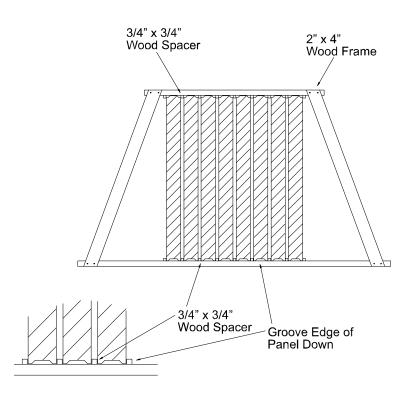


Figure #2

Panels should be covered with a waterproof covering to protect them from the weather. Master-Bilt recommends black polyethylene sheeting, which keeps sunlight out and eliminates the "greenhouse" condition which occurs when clear plastic is used. In heavy traffic areas, it is advisable to place protective rails around stacks of panels to guard them from any possible damage.

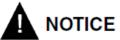
### **ASSEMBLY INSTRUCTIONS**

#### Cam Fasteners

NOTE: Position the panels so that when you are facing the interior of the panel the vertical latch access holes are on the left side of the panel.

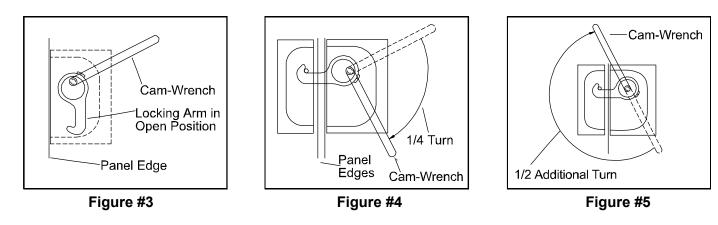
Before attempting to assemble the walk-in, you need to know how Master-Bilt<sup>®</sup> cam-locks operate. On some panels you may not be able to position the cam-wrench exactly as shown below, but the locking procedure will be the same.

- Make sure all cam-lock locking arms are in the "open" position before attempting to lock panels together.
- Push panels together and turn cam-wrench 1/4 turn clockwise. This will engage the locking arm over the locking pin.
- Continue to turn cam-wrench for 1/2 turn or until panels are fastened together securely.



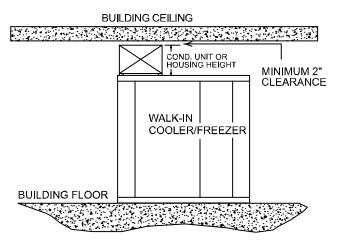
Do not over-tighten cam fasteners. When the rotation of the cam-wrench stops due to normal tightening, the fastener has gone as far as it should. Over-tightening will break the cam fastener and the panels will not latch properly.

If locking arm fails to hook locking pin, turn cam-lock counter-clockwise 3/4 of a turn and repeat the procedure above.



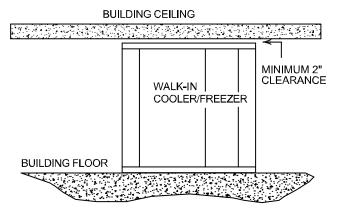
### **Ceiling and Wall Clearances**

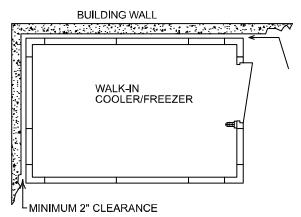
Please keep the following points in mind when determining space requirements for your walk-in.



When a ceiling mounted refrigeration system is used, the distance between the top of the walk-in and the building ceiling should be at least the height of the condensing unit or housing **plus an additional two inches** to allow proper air circulation. For easier maintenance and service access, allow two feet from the top of the refrigeration system housing to the building ceiling.

A minimum space of two inches must be allowed between the ceiling to the walk-in and the building ceiling to permit installation of the walk-in ceiling.





A minimum of two inches should be allowed between walk-in walls and building walls. The extra space compensates for irregularities in building constructions and provides an air space which increases the walk-in's operation efficiency.

# 

The surface where the walk-in is to be installed must be level.

The existing surface must be level before the walk-in is installed. If it is not, leveling must be performed to insure proper installation. If shims are used, they should be rot-resistant wood, strips of galvanized metal, or other sturdy material which will not deteriorate due to weather conditions.

### Leveling Walk-ins with Floors

If the existing surface is not level, the floor panels must be leveled either by using a leveling bed or by placing shims between the existing surface and the floor panels. Shims under floor panels must be on 18-inch centers or less, across both length and width of the panels, to provide adequate support for the walk-in and its contents. Shimming just the outer edges or corners will cause panels to break.

#### Leveling Walk-ins without Floors

Floorless walk-ins will be attached either directly to the existing floor or to screeds. Screeds are 4" high panels placed under the wall panels of a floorless walk-in to raise the wall height. If the existing surface is not level, shims MUST be placed under the screeds or wall panels every eight inches or less. The shims used must be 4 or 5 inches wide to match the thickness of the wall panels or screeds.

### **Flooring Installation**

#### Walk-Ins with Floors

- Lay out all floor panels in sequence as shown on assembly drawings and make sure they are level.
- Fasten these panels as evenly as possible to each other to provide a square and level base for the wall panels.
- Tighten the cam fasteners all the way so that the panels are evenly aligned and fit snugly.

#### Walk-Ins without Floors

On floorless-type walk-ins you are provided with 1-1/2" x 1-1/2" floor angles with which to attach the bottom of all wall sections or screeds to the existing floor.

- Follow the leveling procedures previously described if the existing floor is not level.
- Attach the floor angles to the existing floor before the wall panels or screeds are installed.
- Make sure that the angles are fastened to the floor straight and square, and that they are spaced so that the screeds or wall panels can be placed on top of the angle flange attached to the floor.

### Wall and Ceiling Assembly

Usually, you should begin by assembling the front of the walk-in first. However, if the walk-in is to be installed inside an existing building or if space is restricted, assembly may be easier if you begin at the rear (opposite the door wall).

# NOTICE

Position the panels so that when you are facing the interior of the panel the vertical latch access holes are on the left side of the panel.

- Lay out wall panels or screeds as shown in the assembly drawings.
- As wall panels are assembled, make sure that the cam fasteners are completely tightened and that the panels are straight.
- If the wall panels have a stair-step appearance at the top as they are being assembled, the floor is not level. In that case, stop immediately and follow the instructions under *Leveling the Floor* on the previous page.
- Assemble the wall panels of the front portion until you get to both corners. Then start to assemble ceiling sections to secure wall panels that are already in place.
- Each walk-in will vary slightly in the number of wall panels you can assemble prior to assembly of ceiling panels. On small walk-ins, all walls and corners can be assembled prior to the installation of the ceiling. On larger walk-ins, you must support the wall panels already in place as you go with ceiling panels.
- As ceiling panels are assembled, each one should be properly aligned to the adjoining ceiling and wall panels and locked into position securely.

#### **Door and Frame Installation**

After all the wall and ceiling panels are in place and aligned straight and square, you are ready to install the door and frame.

- Loosen the cam fasteners on the ceiling panel above the door frame and on the wall panels on each side of the door so that there is enough room for movement to set door frame in place.
- Place a carpenter's level against the door frame leg (inside door opening) to ensure that it is correctly aligned vertically, and latch the door frame to the adjoining wall panel.
- Place a carpenter's level against the face of the door frame to ensure correct vertical alignment and latch the door frame to the ceiling panel while holding level in place.
- Retighten the cam fasteners on the adjoining ceiling and wall panels.
- Attach the threshold plate.
- Adjust the bottom wiper gasket of the door so that it sweeps when the door is closed. Do not adjust the wiper gasket so far down that it prevents the door from closing properly.

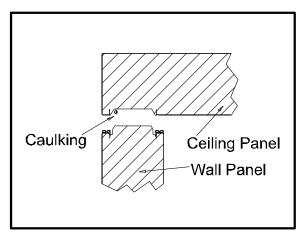
## <u>Caulking</u>

Caulk where necessary with a high-grade caulking (see Figures #6, #7, #8 and #9) to help make the walkin as airtight as possible.

The type of caulking required may vary according to building code standards and other appropriate regulations. Use the correct type of caulking for your application.

One 10 oz. tube of caulking is required for approximately every 60 square feet of panel surface.

On walk-ins located outside, the caulking of ceiling joints will not seal the ceiling against water penetration. A weather-protective roof must be installed on top of the insulated ceiling panels.



NOTICE

Figure #6 Ceiling to Wall Caulking Detail

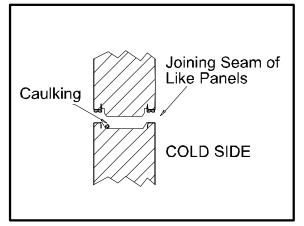


Figure #8 Like Panel to Like Panel Caulking Detail

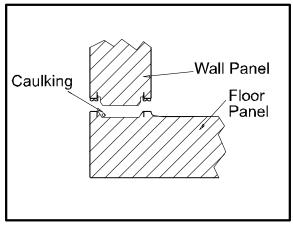


Figure #7 Floor to Wall Caulking Detail

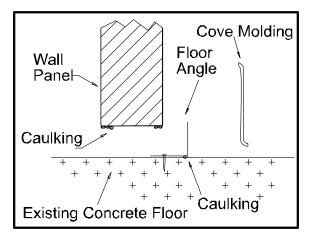


Figure #9 Flat-bottom to Wall Caulking Detail

#### SERVICING PROCEDURES

#### Adjusting Door and Replacing Hinges

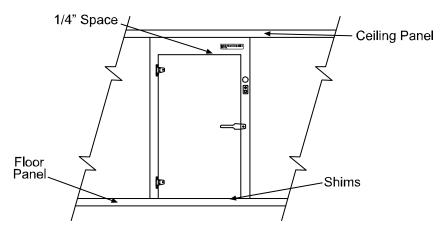
Note: If adjustment is necessary, all Master-Bilt<sup>®</sup> swing doors have adjustable back-up plates in the door for hinge adjustment (see Figure #11 and Figure #12)

#### Standard Duty Door (V-Series)

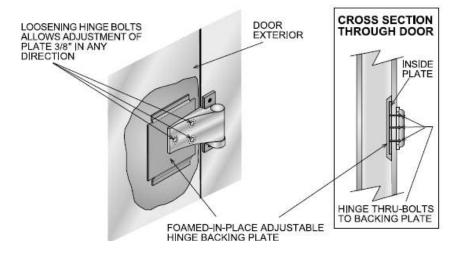
- Place shims under door (see Figure #10).
- If adjusting the door; loosen but do not remove the screws that attach the hinge blade to the door (see figure #11 for location of screws).
- If replacing hinges, remove the hinge blade screws.
- Shim under door as necessary to provide a 1/4" space between top of door and the door frame to ensure square fit (see Figure #10).
- Tighten or reinstall screws attaching the hinge blade to the door.
- After adjusting or replacing the hinges, remove shims and check the space at the top of the door periodically for proper alignment.

#### Heavy-Duty Door (ColdSeal Max Series)

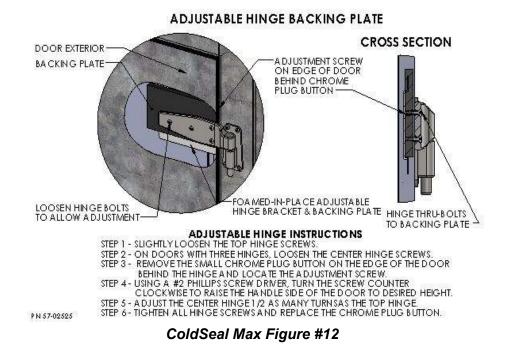
- If adjusting the door; loosen but do not remove the screws that attach the hinge blade to the door (see figure #12 for location of screws). Only loosen top and middle hinge screws
- If replacing hinges, remove the hinge blade screws and shim door as shown in Figure #10.
- Remove the small chrome plug button on the edge of the door behind the hinge and locate the adjustment screw.
- Using a #2 phillips screwdriver, turn the screw counter clockwise to raise the handle side of the door to desired height.
- Adjust the center hinge 1/2 as many turns as the top hinge.
- Tighten all hinge screws and replace the chrome plug button.
- After adjusting or replacing the hinges, check the space at the top of the door periodically for proper alignment.







V-Series Figure #11



# WARNING

To avoid electrical shock, disconnect main power supply to door of walk-in before beginning this procedure.

While performing this procedure, refer to Figures #13 on the following page.

- Remove threshold plate from door frame.
- Remove stainless steel raceways from around door opening. Put the raceways away from the walk-in to allow them to warm to room temperature.
- Disconnect the heater cable lead wires from the power supply inside the light switch J-box and discard heater cable.
- Feed new heater cable lead wires through the opening in the inner frame and secure grommet in the opening in the back of the light switch J-box. Do not connect heater to power supply at this time.
- Route heater cable along inside corner of raceway track and secure with foil tape. Snap stainless steel raceways to door frame when heater cable is secured in place.
- Route heater cable along inside bed of sill plate, securing with foil tape as you go.
- Be careful not to "kink" the heater cable, which could result in improper operation and shortened life of heater.
- After routing cable through sill plate, position and fasten threshold plate into place.
- Fasten heater cable lead wires to power supply in light switch J-box and connect main power supply to door frame.

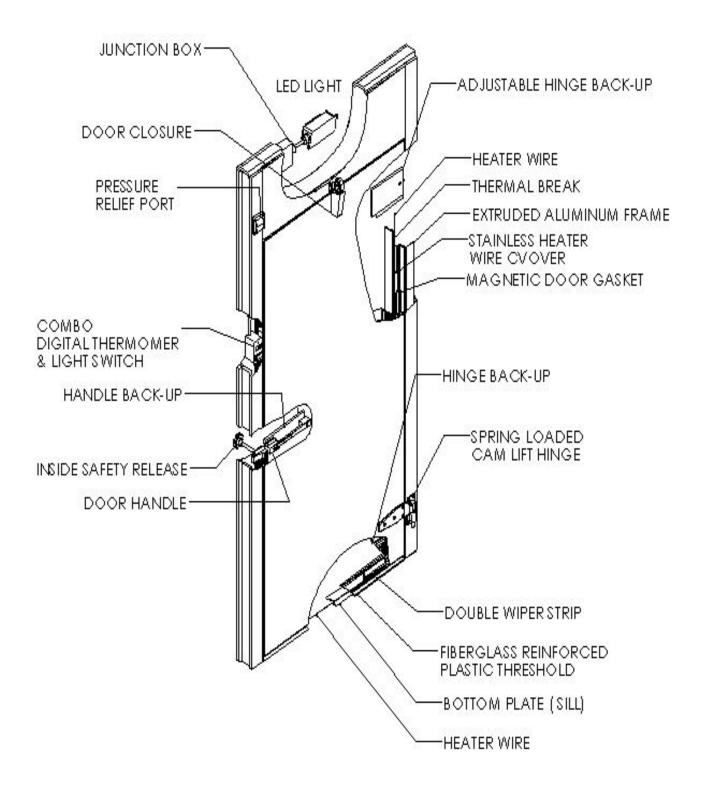
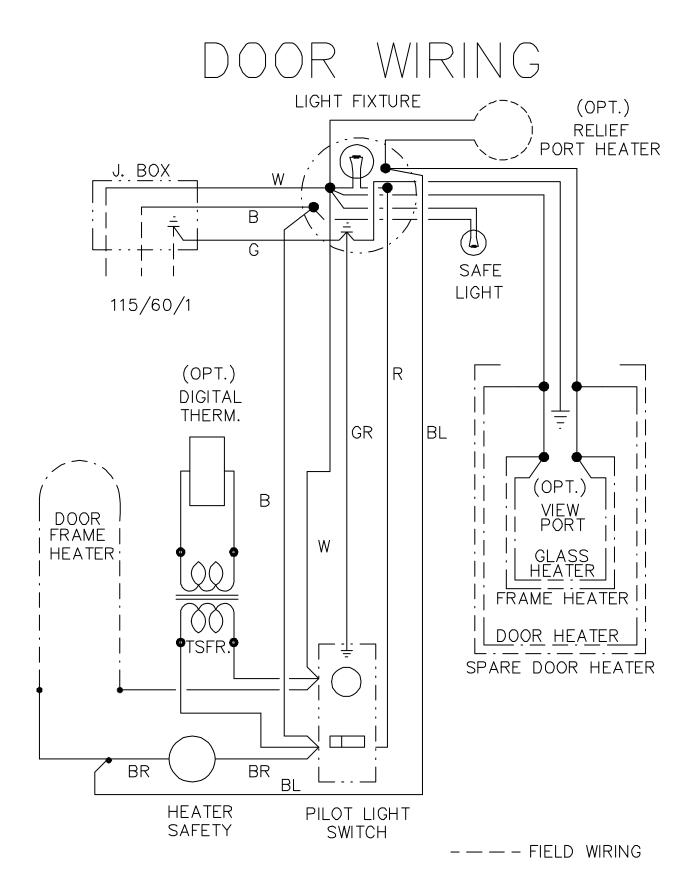
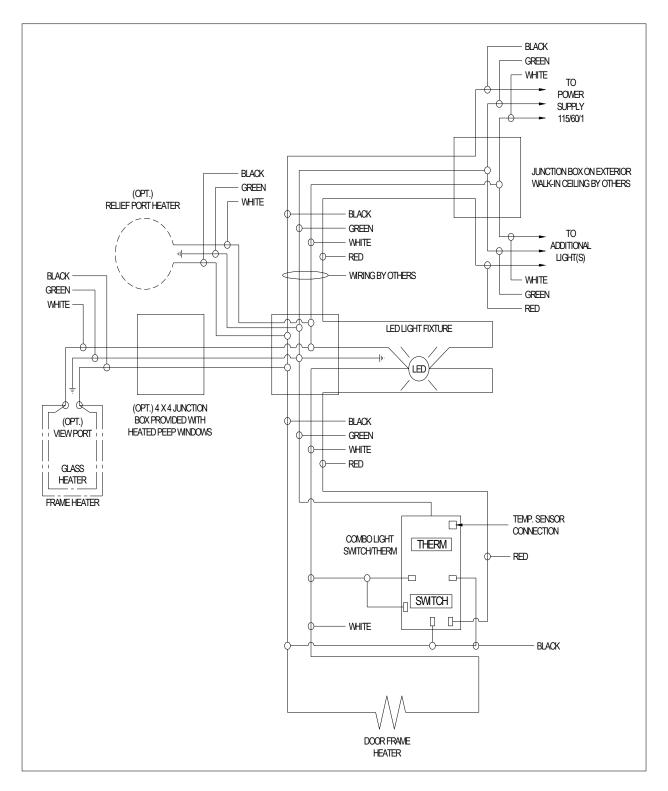


Figure #13 ColdSeal Max Heavy-Duty Cooler/Freezer Door and Frame Heater Detail

# V-Series Walk-In Door



# ColdSeal Max Door Wiring Diagram



# 

The floor surface of your walk-in cooler or freezer can become slippery and present a potential safety hazard if the surface is not kept cleaned and maintained. You should constantly monitor and inspect your walk-in to insure that proper maintenance and cleaning are being performed.

### Freezer Cleaning

- Move all items to one side of the freezer and sweep interior thoroughly with a broom.
- Replace stock properly.
- Repeat process on opposite side.

# 

Do not use water for cleaning the inside of the freezer. The water will freeze and form ice on the floor which could cause someone to slip and fall.

#### **Cooler Cleaning**

- Fill clean mop bucket with a sanitizing solution consisting of 1 part bleach and 32 parts water (4 oz. bleach to 1 gal. water).
- Spread solution on ceiling and walls with scrub brush, applying baking soda to the wall with the scrub brush as you clean.
- Wipe down ceiling and wall thoroughly with clean, wet cloth.
- Spread remaining sanitizing solution on the floor with scrub brush, applying baking soda to the floor with scrub brush as you clean.
- Wipe down floor thoroughly with clean wet cloth.
- Wipe ceiling and walls with towels to avoid mildew and bacteria growth.
- Clean all remaining water off the floor with clean dry cloth. (AVOID ANY POOLING OF WATER ON FLOOR, AS POOLING WATER COULD DAMAGE FLOOR)

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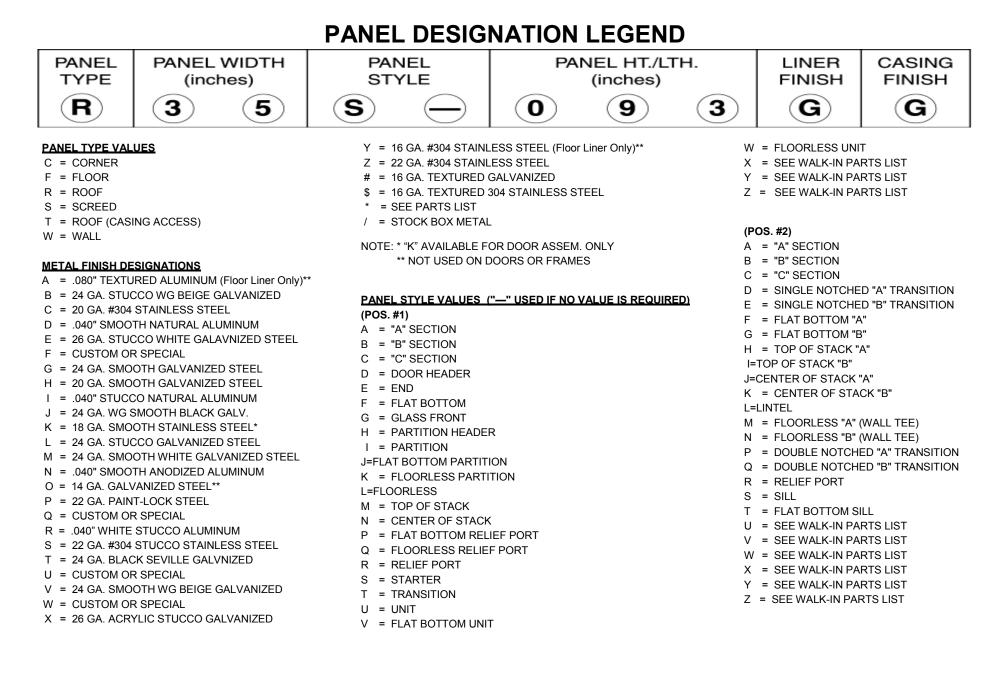
# SALE AND DISPOSAL

If you sell or give away your Master-Bilt<sup>®</sup> walk-in cooler or freezer, you must make sure that all safety labels and the Installation and Operations Manual are included with the walk-in. If you need replacement labels or manuals, contact the parts and technical service department at Master-Bilt at 1-800-684-8988.

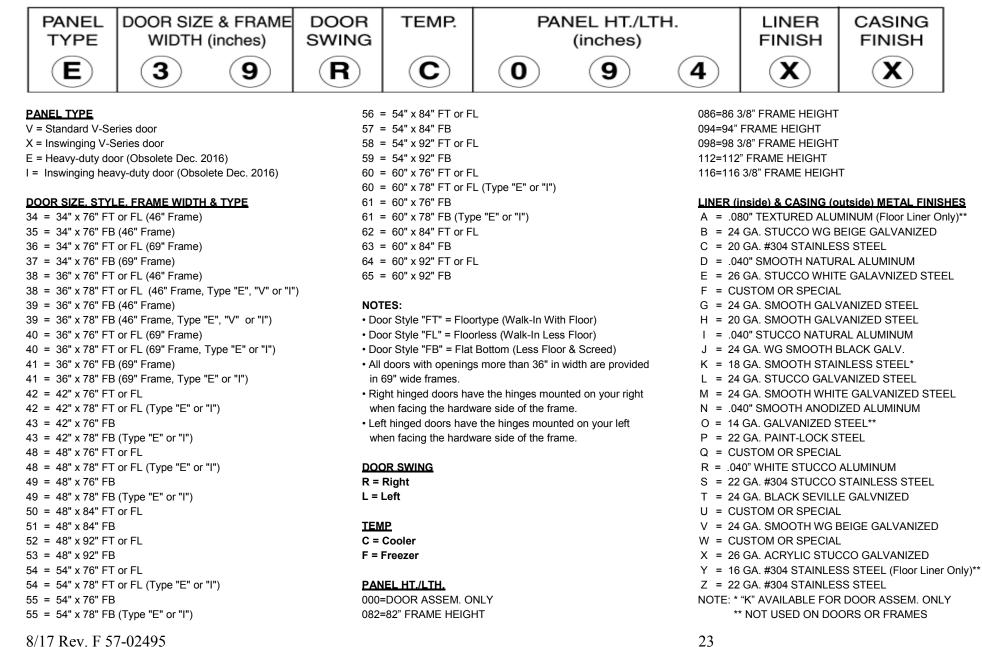
The parts and technical service department should be contacted at the time of sale or disposal of your walk-in so records may be kept of its new location.

If you sell or give away your Master-Bilt<sup>®</sup> walk-in cooler or freezer and evacuate the refrigerant charge before shipment, you must evacuate the refrigerant into an approved recovery and reclaim system in order to satisfy all applicable federal and state regulations regarding release of chlorofluorocarbons to the atmosphere.

The release of chlorofluorocarbons to the atmosphere is a source of ozone depletion and regulated by federal and state law.



# DOOR AND FRAME DESIGNATION LEGEND



### ColdSeal Door & Frame Assembly Nomenclature

#### E 4-5 6-7-8 2 3 10 3 9 6 0 4 w/suffixes

#### Door Type (Character 1)

- D ColdSeal Max
- I ColdSeal Max Inswinging
- Temp or Special Note (Character 3)
- С Cooler
- D Cooler Frame Only
- F Freezer
- G Freezer Frame Only
- Q No Sill or Threshold
- R Remote Frame
- U Custom Or Special

#### Door Opening Size (in) & Frame Style (Characters 4-5)

- Door Types (D,I,V,X) 26 26 x 78 FT or FL 27 26 x 78 FB 30 30 x 78 FT or FL 31 30 x 78 FB 36 36 x 78 FT or FL 37 36 x 78 FB 38 36 x 84 FT or FL 39 36 x 84 FB 48 48 x 78 FT or FL 49 48 x 78 FB 50 48 x 84 FT or FL 51 48 x 84 FB 52 48 x 96 FT or FL 53 48 x 96 FB 54 54 x 78 FT or FL 55 54 x 78 FB 56 54 x 84 FT or FL 57 54 x 84 FB 58 54 x 96 FT or FL 59 54 x 96 FB 60 60 x 78 FT or FL 61 60 x 78 FB 62 60 x 84 FT or FL 63 60 x 84 FB 64 60 x 96 FT or FL 65 60 x 96 FB
  - Sizes listed are up to and including the specified opening width x height

#### Frame Height (Characters 6-8)

- 000 Door Only No Frame
- 082 82" Frame Height
- 086 86.375" Frame Height
- 094 94" Frame Height
- <sup>6</sup>098 98.375" Frame Height
- <sup>7</sup>112 112" Frame Height
- <sup>116</sup> 116.375" Frame Height
- 999 Custom Or Special \*\*\* 999 represents any value not specifically listed

#### Interior Finish (Character 9)

#### Exterior Finish (Character 10)

#### Metal Finish Designations (Characters 9-10)

- 1/8" Diamond Aluminum \*\* \$
- % Custom Or Special
- 1 .100" Smooth Aluminum \*\*
- 26 Ga. Sherwin Williams Row House Tan +
- .080" Textured Aluminum \*\* А
- В 24 Ga. Stucco WG Beige Galvanized
- С 20 Ga. Smooth Stainless Steel
- D .040" Smooth Aluminum
- Е 26 Ga. White Stucco Galvanized
- F Custom Or Special
- G 24 Ga. Smooth Galvanized
- н 20 Ga. Smooth Galvanized
- .040" Stucco Aluminum Т
- 24 Ga. WG Smooth Black Galvanized .1
- K 18 Ga Smooth Stainless Steel \*
- 24 Ga. Stucco Galvanized 1
- M 24 Ga. White Smooth Galvanized
- N .040" White Smooth Aluminum
- 0 14 Ga. Galvanized Steel \*\*
- Р 22 Ga. Smooth Paint-Lok
- Q Custom Or Special
- R .040" White Stucco Aluminum
- S 22 Ga. Stucco Stainless Steel
- Т 24 Ga. Black Seville Galvanized
- U Custom Or Special
- V 24 Ga. Smooth WG Beige Galvanized
- W Custom Or Special
- X 26 Ga. Acrylic Stucco Galvanized
- Y 16 Ga. Stainless Steel \*\*
- Z 22 Ga. Smooth Stainless Steel
- 0-9 Custom Or Special
- Note: \* "K" finish available for door assembly only \*\* Not used on doors or frames

- Custom Or Special W Custom Or Special
- X Custom Or Special
- Y Custom Or Special
- Z Custom Or Special
- V

#### Door Hinged (Character 2)

R Right Hinged

L Left Hinged