

OPERATION & MAINTENANCE MANUAL

The following manual is provided to evaluate the operational performance and future maintenance of DBCI Rolling Sheet door product line. DBCI mandates rolling sheet door product installation by trained rolling door technicians and future maintenance by experienced/qualified personnel. Specific parts, components, assemblies, etc. that are determined to be defective, worn, or unsafe by performance evaluations or preventative maintenance programs must result in rolling sheet door assembly taken out of service. All repairs, part replacements or adjustments must be made by trained rolling door technicians to place rolling sheet door assembly back into service. It is **MANDATORY that all** DBCI door technicians and other technicians, installers and future maintenance staff comply fully with all safety information, procedures, and instructions contained in this manual. **Failure to do so could result in premature part/component failure resulting in serious injury or death to others** and, with respect to DBCI door technicians, immediate termination of employment.

Rolling Sheet Door detail and Rolling Sheet Door Terminology is detailed on pages 2 – 7 of this manual. Please reference those pages for applicable terminology and visual reference.

 **Adjustments, part replacement, repairs, etc. must be performed by trained rolling door technician** 

ROLLING SHEET DOOR PERFORMANCE EVALUATION

- Rolling Door operation should be easy at/near the open and closed positions. Rolling Door may require more effort to open through the middle portion of travel.
- Rolling Door operation to the open position should result in bottom bar angle resting against head stops and remain in the open position.
- Rolling Door operation should not exceed 35lb. of force for hand chain operation, and 30 lb. for manual operation.
- Rolling Door operational balance evaluation:
 - If door operation is easy to close, but hard to open; spring tension needs to be increased
 - If door operation is hard to close, but easy to open; spring tension needs to be decreased
 - **Spring tension adjustments must be made by trained rolling door technician. Refer to Rolling Door installation instructions for tension adjustment procedure.**

 **WARNING: Extreme spring tension can cause serious injury or death** 

- Rolling Door electrical motor operation should be evaluated quarterly.
 - Prior to Rolling Door electrical motor operation assure that doorway is clear and in full view before and during complete operation cycle.
 - UL 325 requires constant pressure to close for doors without sensing edges or photoelectric sensors/eyes.
 - Sensing devices should be tested at least weekly. Sensing edges should be tested at both ends to evaluate proper operation. Photoelectric eyes must be tested by breaking beam to evaluate proper operation.
 - Evaluate operator limit setting at door travel open and closed positions. If operator limit setting has become out of sync with door open and close positions, refer to operator installation instructions to reset limits tan appropriate setting in relationship to door open and closed positions.

- If at any time during Rolling Door electrical motor operation, motor sounds like it is under excessive load or stress to open the door:
 - ⚠ Close door using motor operator. Engage motors manual operation feature to manually operate the door to the open position.
 - ⚠ If door operation is heavy, cannot be completely opened or hard to open and will not stay in open position; Spring Assembly counterbalance evaluation is required, which may require adjustment or replacement.
 - ⚠ **Spring tension adjustments or repairs must be made by trained rolling door technician. Refer to Rolling Door installation instructions for tension adjustment procedure.**
 - ⚠ **Determination of counterbalance repair must result in Rolling Door taken out of service until required repairs are complete.**

VISUAL INSPECTION

- Guides:
 - Guide fasteners must be present and secured in each existing hole/slot provided with fasteners supplied by DBCI.
 - Guides must not be bent, crushed, or damaged in a way that binds the curtain and/or bottom bar assembly at any portion of travel.
 - Operation and Maintenance Manual
 - Head stops must be securely fastened in place at top of guide to prevent bottom bar from traveling out of the top of the guides when rolling door curtain is fully raised to the open position.
 - Inspect guide wear strip (when provided) for excessive cracking, tearing, wear or absence.
- Curtain:
 - During rolling door operation, curtain and bottom bar assembly must move freely inside guides and not contact header or ceiling.
 - Latches, Step Plates, Slidelocks, windlocks, etc. (when provided) must always be securely fastened to curtain assembly.
 - Windlocks should never be removed from curtain.
 - Inspect curtain wear material or felt tape (when provided) for excessive tearing, wear, or absence.
 - Inspect weather seals; Top Draft Stop, side draft stop, brush (when provided)
- Brackets/Mounting Plates:
 - All Fasteners must be present and secured with fasteners detailed in installation instructions.
 - Brackets & Mounting plates (when provided) must not be bent, or damaged in a way that adversely effects the safe operation of door assembly.
- Hood Assembly:
 - When provided, all fasteners attaching hood endcaps, hood support (when provided), and hood to wall must be secure.
 - Hood endcaps or hood must not be bent or crushed in a manner which binds the curtain thus hindering the proper operation of rolling door operation.
- Chain Hoist Gears:
 - Fasteners attaching all chain hoist components, & gears must be securely fastened.
 - Visually inspect gears for broken, cracked, missing or extremely worn teeth.
 - Clear debris from gear teeth.
- ⚠ Sprockets and Roller Chain Drive:
 - Sprocket misalignment will result in excessive wear and could cause roller chain to ump off of sprocket during operation or lead to premature failure of roller chain assembly.
 - Visually inspect sprocket alignment between Rolling Door sprocket and output sprocket of motor operator. Align sprockets and tighten set screws as needed.
 - Inspect roller chain for excessive wear or damage.
 - Roller Chain Lubrication: SAE 20 oil to be used for service temperatures between 32° F and 104° F. Apply oil where chain tension is minimal.
 - Check fasteners and tighten as required.

- Tensioning Devices & Axle Supports:
 - Fasteners attaching all tensioning devices and axle supports must be securely fastened.
 - Set screws securing axle must be securely fastened.
 - Inspect for components for damage or deformity.
- ⚠ Determination of tensioning device repair or replacement must result in Rolling Door taken out of service until required repairs are complete. Repair or replacement must be performed by trained rolling door technician.
- ⚠ Product safety labels should be periodically inspected and cleaned by the product user as necessary to maintain good legibility for safe viewing distance

Product safety labels should be replaced by the product user when they no longer meet the legibility requirements for safe viewing distance. In any case where products have an extensive expected life or where exposed to extreme conditions, the product user should immediately contact DBCI to obtain replacements.

Rolling Sheet Door Terminology

Axle Support – Component used to support and secure the axle to the bracket.

Bottom Bar – Reinforcing member at the lower edge of the bottom curtain panel.

Brackets – Support members above the top of the wall opening to which the axle assembly is attached.

Curtain – An assembly of curtain panels seamed together to form a single piece curtain.

Chain Hoist – Gear and gearbox assembly or Sprocket and roller chain assembly utilized in the safe operation of a door too large to operate manually.

Guides – Vertical assembly in which the curtain travels and that is fastened to the jamb, retaining the edges of the door curtain and closing the space between the curtain edges and the jamb.

Head Stops – Bars mounted at top of guides to prevent bottom bar from traveling out of the guides when the curtain is fully raised.

Hood Assy. – Assembled sheet metal components horizontally mounted over the coiled curtain and brackets, serving as a cover for the coiled curtain and closing door space between the door coil and the header. Hood assembly components are: Hood Endcaps, Hood, and Hood Support (when necessary).

Hood – A sheet metal housing that mounts to hood endcaps and wall horizontally over the coiled curtain and brackets, serving as a cover for the coiled curtain and closing the door space between the door coil and the header.

Hood Endcaps – Sheet metal components mounted to wall to serve as hood mounting structure as well as close off (Cap) end of hood to complete hood assembly.

Hood Support – “L” shape, steel channel, mounted to wall above and center of the opening to support a hood split into two sections in order to span full width of door assembly.

Latch – Locking device mounted to the exterior side of the curtain, which slides into a pre-existing slot in guide, and is used to secure curtain in the closed position. Equipped for padlock or cylinder lock.

Mini Clip – Plate installed on the bottom bar to prevent it from passing head stops when curtain is raised.

Mounting Plate – Steel plate used to install and support brackets when field conditions do not have adequate side room structure to mount brackets.

RDD-201, Tension Safety Label – Warns that when adjusting tension, death or serious injury could result. Instructs whom should make adjustments to spring tension and repairs as well as the position of the door while making adjustments & repairs. Label should be adhered to tension bracket, tension cover, or within 12” of components spring adjustment components and in clear view when door installation is complete.

RDD-202, Rolling Door Safety Label – Warns of the hazard of a moving rolling door. Door should not be placed in motion to closed position unless doorway is clear. Instructs of the safe operation of a rolling door. Label is to be placed at a readable height on the door drive side guide or jamb.

RDD-204, Rolling Door Bottom Bar Label – Similar language to RDD202, but installation location to bottom bar of rolling door assembly.

Side Draft Stop – Material attached to guides used to close gap between door curtain and the guide when the door is in the closed position. Predominately on insulated curtains.

Slide Lock – Locking device mounted to the interior side of the curtain at the ends of bottom bar angle, which slides into a pre-existing slot at bottom of guide. Equipped for padlocking.

Step Plates – Plate installed on the bottom bar used to push the door tight to the floor with foot when engaging locks, and also prevent bottom bar from passing head stops when curtain is raised.

Tensioning Device – A component attached to axle and bracket that controls the spring tension. Spring tension can be increased or decreased via this component.

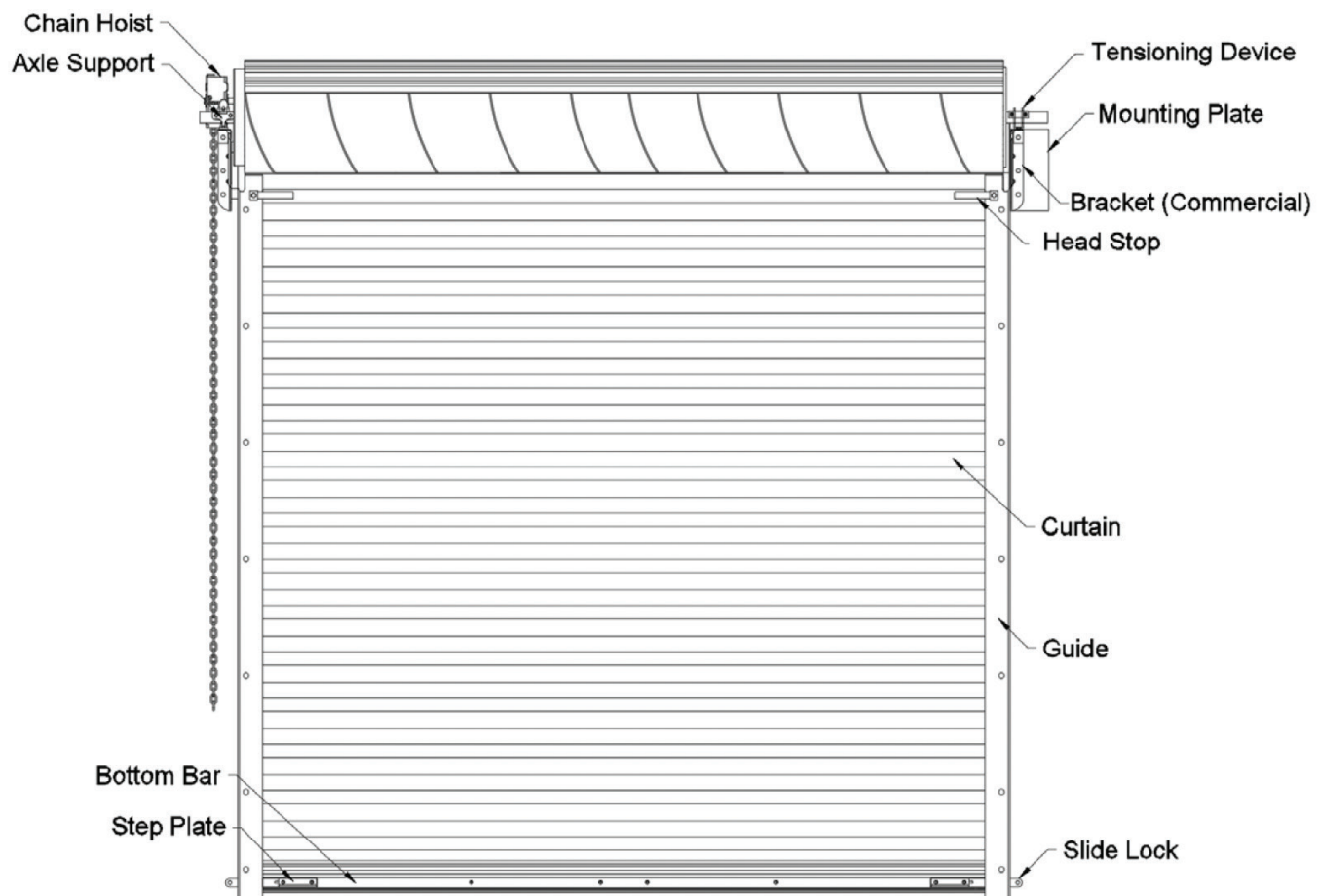
Top Draft – Material attached to curtain used to close gap between door and header when door is in the closed position. Predominately on insulated curtains.

Wear Strip – Material attached to the curtain and guides to reduce paint wear and noise. Black nylon material-Guides, Black webbing material-Curtain (commercial), White felt tape-Curtain (mini).

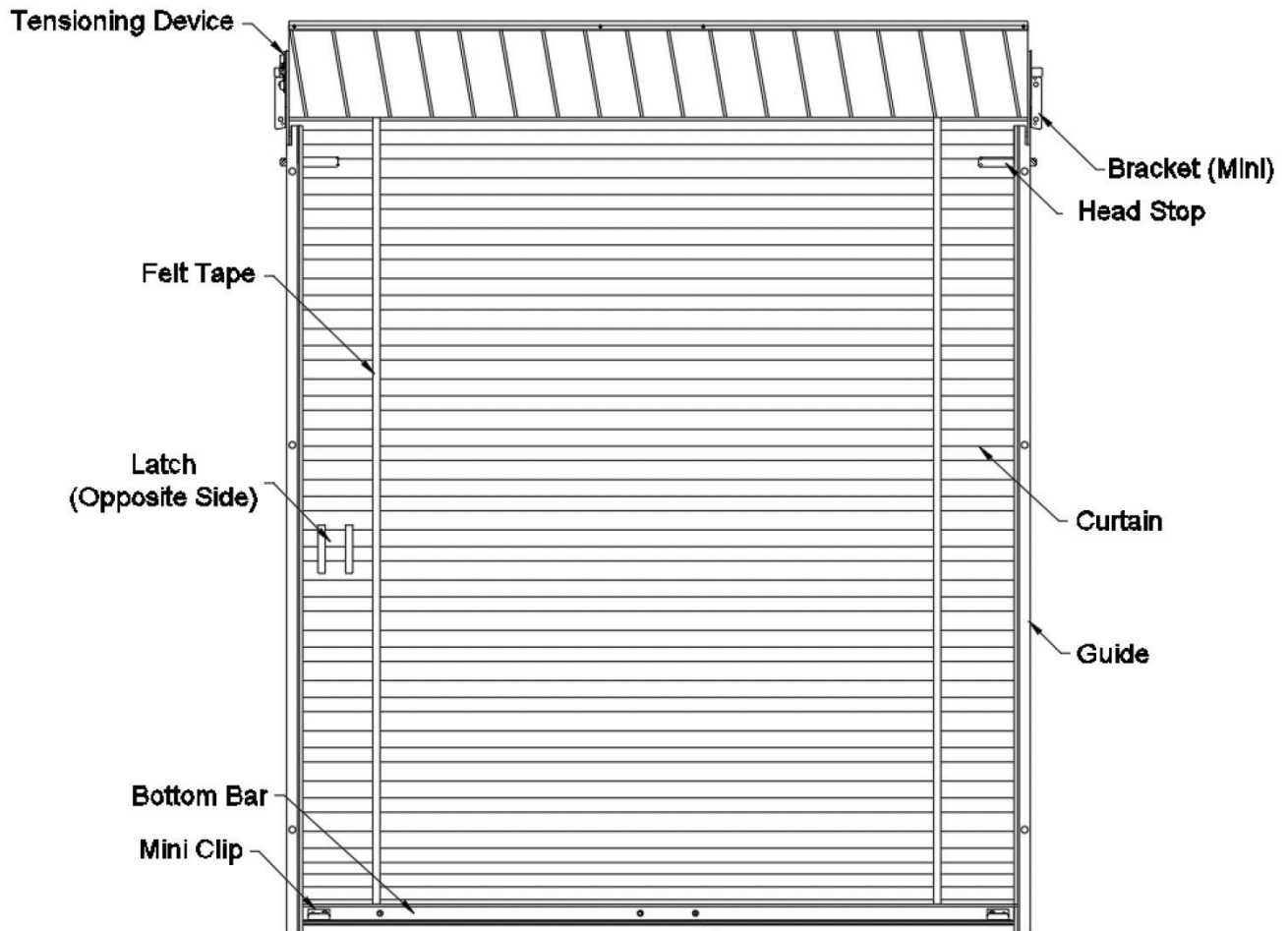
Windbar – Angle mounted inside guide which engage windlocks under windload.

Windlock – A component which is attached at predetermined intervals to sheet ends to prevent curtain from leaving the guides under wind load, and which are sometimes used in conjunction with wind bars inside the guides.

COMMERCIAL SHEET DOOR



SELF-STORAGE SHEET DOOR



PRODUCT SAFETY LABELS

⚠ WARNING



Moving door could result in death or serious injury
Do NOT close door until doorway is clear

SAFETY INSTRUCTIONS

1. Control the speed of the door during manual operation.
2. Do not stand or walk under moving door.
3. Keep doorway clear and in full view while operating door.
4. Do NOT permit children to play on, near, or with door, or operate door controls.
5. Unlock door before opening door.
6. Sensing devices on motor operating doors should be tested frequently.
7. Adjustments or repairs must ONLY be made by a trained door systems technician using proper tools and instructions.
8. Visually inspect door and hardware monthly for worn and/or broken parts and check if door operates freely. DO NOT operate a door with a broken spring.

Place label at a readable height on door drive side guide or jamb.

Do NOT remove, cover, or paint over label.

This label should be inspected periodically for legibility, and a replacement label should be ordered from the door manufacturer as needed.



12/07 RDD-202 ©

RDD-202 ROLLING DOOR SAFETY LABEL



RDD-201 TENSION SAFETY LABEL



⚠ WARNING



Components under extreme spring tension could result in death or serious injury.

SAFETY INSTRUCTIONS

1. Repairs and adjustments must be made by a trained rolling door systems technician using the proper tools and instructions.
2. Door **must** be fully opened when making adjustments.



Do NOT remove cover or paint over label.

This label should be inspected periodically for legibility, and a replacement label should be ordered from the door manufacturer as needed.



12/07 RDD-201 ©

Order # _____

<p>⚠ WARNING</p>  <p>Moving door could result in death or serious injury. Do NOT close door until doorway is clear.</p>	<p>SAFETY INSTRUCTIONS</p> <ol style="list-style-type: none"> 1. Control the speed of the door while manually operating. 2. Do not stand or walk under moving door. 3. Keep doorway clear and in full view while operating door. 	<ol style="list-style-type: none"> 4. Do NOT permit children to play on, near, or with door, or operate door controls. 5. Unlock door before opening door. 6. Sensing devices on motor operated doors should be tested frequently. 	<ol style="list-style-type: none"> 7. Adjustments or repairs must ONLY be made by a trained door systems technician using proper tools and instructions. 8. Visually inspect door and hardware monthly for worn and/or broken parts and check if door operates freely. DO NOT operate a door with a broken spring. 	<p>Attach label to bottom bar.</p> <p>Do NOT remove, cover, or paint over label.</p> <p>This label should be inspected periodically for legibility, and a replacement label should be ordered from the door manufacturer as needed.</p>	 <p>12/07 RDD-204 ©</p>
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RDD-204 ROLLING DOOR BOTTOM BAR LABEL

