

INSTALLATION INSTRUCTIONS SECURITY SHUTTER MODEL 523

READ THESE INSTRUCTIONS THOROUGHLY BEFORE ATTEMPTING TO INSTALL THIS DOOR!

Product may be covered by one or more patents. See <u>www.wayne-dalton.com/patents</u> for details.

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SAFETY INFORMATION OVERVIEW OF POTENTIAL HAZARDS READ THIS SAFETY INFORMATION

Overhead doors are large, heavy objects that move with the help of springs under high tension and electric motors. Since moving objects, springs under tension, and electric motors can cause injuries, your safety and the safety of others depend on you reading the information in this manual. If you have questions or do not understand the information presented, call your nearest trained door system technician.

In this section, and those that follow, the words Danger, Warning, and Caution are used to emphasize important safety information. The word:

A DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

A WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

A CAUTION indicates a potentially hazardous situation which, if not avoided, may result in injury or property damage.

The word **NOTE** is used to indicate important steps to be followed or important considerations.

IMPORTANT SAFETY INSTRUCTIONS READ AND FOLLOW ALL INSTRUCTIONS SAVE THESE INSTRUCTIONS

Potential Hazard	Effect	Prevention
MOVING DOOR	A WARNING Could result in Death or Serious Injury	Keep people clear of opening while Door is moving. Do NOT allow children to play with the Door Operator. Do NOT operate a Door that jams or one that has a broken spring.
ELECTRICAL SHOCK	A WARNING Could result in Death or Serious Injury	Turn OFF electrical power before wiring switch and motor to supply.
HIGH SPRING TENSION	A WARNING Could result in Death or Serious Injury	Do NOT try to remove, install, repair or adjust springs or anything to which door spring parts are fastened, such as, wood blocks, steel brackets, cables or other like items. Installations, repairs and adjustments must be done by a trained door system technician using proper tools and instructions.

KEY DRAWING

Security Shutter with parts.

Right hand door is illustrated. Guides for face of wall mounting shown.



Please note that components and component locations are shown here for REFERENCE ONLY. Your unit installation and component locations may be different.

DOOR INSTALLATION DATA SHEET

A sample of the "DOOR INSTALLATION DATA" sheet is shown here. Locate the work order "Door Installation Data" sheet inside the door hardware box. You will need to refer to the "Door Installation Data" sheet. See FIG 2. Factory order number on door components must match with factory order number

on the "Door Installation Data" sheet. Each door has it's own individual sheet.

			** UI O				Page	Date
W.O./Parent.		WO	**************************************	K K O R L) E K	****	Plant	17
Item Number. Customer Status	FAX:	Related SO HARDWARE	• Pt	Qty Jo' . Pty. Typ			Lot # Start Dt . Drawing # P.O. #	Req D. CONFIGURED
WALL OPENING GUIDE TYPE BOTTOM BAR TYP DOOR MOUNT *** DOOR SERIE *******	: E: : S: ******	WIDE X GUIDE ENT BB WAL ***	HIG RY TYPE : AR MATL.: L MOUNT :	H PRDCT:	SLA'I BBAR FIN OPERAT	νE : : DR. ISH : ION :	GAUGE : IVE SIDE :	WINDLOAD : 20 DRIVE NO. : BBAR WEATHERSTRIP : ABBV/COLOR : *****
DOOR SERIES	:		DOOR 7 'STA	N DAT	'A :			
WALL OPENING	WIDTH	WALL OPENING HEI	GHT GUIDE	YPE S R	EFERENCE	HAND DRI	VE OPERAT	ION TYPE
INITIAL TURNS	TOTAL TURNS	RELEASE DRI TURN	VE	CURTAIN/	BOTTOM BAR	WT. COUN	NTERBALANCE W	EIGHT
GUIDE GAP	GUIDE CONFIG	MOUNTIN						
			Messages .					

FIG 2

PRE-INSTALLATION CHECK LIST

Verify that the door installation can be accomplished before proceeding:

- Locate the work order "DOOR INSTALLATION DATA" sheet, see FIG 2, inside the door hardware box.
- Does the wall opening shown in FIG 3 match the Opening Width and Height shown on the "Door Installation Data" sheet?
- Are the guides you received suitable for the jambs? Compare the guides type shown on the "Door Installation Data" sheet with FIG 4.
- Can the guides be installed plumb?
- Check the sill for level. If sill is not level, mark the high sill location on the low side jamb.
- Guides are designed to rest on counter/sill.



G

FIG 4

FACE OF WALL INSTALLATION

STEP 1 INSTALL CURTAIN GUIDES TO JAMB

- Mount curtain guides to the wall surface using supplied fasteners. See FIG 5A and 5B.
- Check "G" Dimension as illustrated in FIG 4 on page 5. "G" Dimension must match your "DOOR INSTALLATION DATA" sheet.
- Both guides MUST be on a level line and both guides MUST be plumb.
- \bullet The "G" Dimension must be held within 1/8" over the entire height of the guides.
- If using the Cremone cylinder lock tubular bottom bar you will need to include the standout tubes between the guides and the wall as shown in FIG 5C. The standout tubes will need to be pre-drilled onsite to match the holes in your curtain guide.

Follow instructions and use proper lifting equipment and correct lifting procedure to avoid serious injury or death.

Rapidly closing curtain could result in death or serious injury. Do not remove factory binding around curtain assembly until step 3.

STEP 2 INSTALL HEAD ASSEMBLY

- Lift the head assembly using a fork lift or other appropriate lifting equipment and lower it onto the top of the guides, inserting the support bars into the guide as shown in FIG 6.
- Be sure the support bars are fully inserted into the guides on both sides. See FIG 7
- Install the wall fasteners provided into the head plate flanges to attach it to the jamb. See FIG 7



Prior to winding or making adjustments to the springs, ensure you Are winding in the proper direction as stated in the Installation Instructions. Otherwise the spring fittings may release from spring if not wound in the proper direction and could result in severe or fatal injury.

WARNING

Winding torsion spring(s) is an extremely dangerous procedure and should be performed only by a trained door system technician using proper tools and instructions.

Rapidly closing curtain could result in death or serious injury. Use caution when lowering curtain before spring tension is applied.

STEP 3

WIND SPRINGS (SKIP THIS STEP IF YOUR DOOR IS ELECTRICALLY OPERATED)

- Cut the banding and carefully lower the curtain into the guides to the fully closed position.
- Using a 1-1/2" open end wrench wind the spring by turning the Winding Nut the specified number of turns indicated on your door drawing sheet. The winding direction would be the same as the direction to open the door for both left and right hand drive. See FIG 8A and FIG 8B.
- Check the balance of the door. If needed raise the door and adjust the number of turns to achieve proper balance.

STEP 4 ATTACH BOTTOM BAR STOPPER

- Cut the banding and carefully lower the curtain into the guides to the fully closed position.
- With door in the closed position attach stopper using track bolts and nuts provided, as shown in FIG 10A and FIG 10B.

STEP 5 ATTACH FRONT HOOD

- Position the hood in place as shown in FIG 11.
- Align the hood and attach using the #10 tek screws and wall fasteners provided. See FIG 11.
- If your door is 12'-0" or wider you must also attach the hood to the hood band, supporting the center of the hood with #10 tek screws provided.







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STEP 6 ATTACH GUIDE COVERS

- Align guide covers on guides and snap into place. See FIG 12A.
- If needed guide covers can be removed using a flat head screw driver.

STEP 7 PLACE WARNING LABEL

• Place warning label on drive side guide at eye level. See FIG 12B



WARNING LABEL

STEP 8 LEVEL DOOR (IF NEEDED)

- If during previous step the door rolled up level and straight, skip this step.
- A. Check that guides are plum, square, level, and are properly mounted onto floor and wall.
- B. Check that the pipe is level.
- C. Check that the attachment of the curtain is straight on the pipe.

If all of the above is correct and the door still rolls up out of level, a shim may need to be added, as shown in

FIG 13.

Shim materials:

- A piece of rubber is the desired material for a shim.
- A piece of cardboard could be used but may deteriorate over time.
- Use a 1/8" x 6" x 6" x 6" thick piece of material and increase thickness or pieces depending on the result acquired, as shown in FIG 14.

Application of shim:

- To determine the side in which the shim will be applied, the door will need to be in the open position.
- When facing the door, the bottom bar will be unleveled. The lower side of the bottom bar will be the side in which the shim needs to be placed.
- The hood may need to be loosened or removed for the application of the shim.
- To apply the shim, two laborers might be required.

Installing the shim:

- D. Close the door fully.
- E. When door is at bottom make sure door is in hand chain mode.
- F. Turn off the power to the motor (if applicable) to ensure safe application of the shim.
- G. Backwind the door using the chain. Lock chain in place using chain keeper.

🛆 WARNING

When the door is wound backwards there is a force in which the door will want to wind forward. Secure the door in this position by locking hand chain onto chain keeper to prevent injury.

- H. As the curtain is wound backwards apply the shim to the lower side between the pipe and slats or on the ring of the low side.
- I. Restore power to the motor (if applicable).
- J. Check the level of the bottom bar while door is in the open position. If it is not level, add a second shim and check again.

NOTE: If the door has wind locks there may be some stacking interference in the wind locks as the door is wrapping during operation. This is a normal characteristic. For wind lock applications the doors bottom bar should be level at the open position.

MOTOR OPERATION SETUP STEP 9

If your door is equipped with a motor please refer to page 14 -16 for setup information and wiring.







BETWEEN JAMB INSTALLATION

<u> A WARNING</u>

Follow instructions and use proper lifting equipment and correct lifting procedure to avoid serious injury or death.

STEP 1 INSTALL CURTAIN GUIDES AND HEAD ASSEMBLY

- Lift head assembly with fork lift and insert both support bars into curtain guides. See FIG 15
- Using the fork lift and two assistants, slide the whole assembly into place between the jambs until the guides are fl ush with the jamb surface at the front of the door. See FIG 16
- Check "G" Dimension as illustrated in Fig 4 on page 5. "G" Dimension must match your "DOOR INSTALLATION DATA" sheet.
- Both guides MUST be on a level line and both guides MUST be plumb.
- Be sure there is a small gap between the top of the headplates and the header for attaching the hood and fascia in a future step.
- The "Guide Dimension" must be held within 1/8" over the entire height of the guides.
- ${\scriptstyle \bullet}$ Mount curtain guides to the wall surface using supplied fasteners. See FIG 17 and 18

Rapidly closing curtain could result in death or serious injury. Do not remove factory binding around curtain assembly until step 2.



Prior to winding or making adjustments to the springs, ensure you are winding in the proper direction as stated in the installation instructions. The spring fittings may release from spring if not wound in the proper direction and could result in severe or fatal injury. 🗥 WARNING Winding torsion spring(s) is an extremely dangerous procedure and should be performed only by a trained door system technician using proper tools and instructions. \land WARNING Rapidly closing curtain could result in death or serious injury. Use caution when lowering curtain before spring tension is applied. WIND SPRINGS (SKIP THIS STEP IF YOUR DOOR IS **STEP 2** WINDING WINDING DIRECTION CURTAIN FI FCTRICALLY OPFRATED) NUT (SOME COMPONENTS NOT WRAP • Cut the banding and carefully lower the curtain into the guides to SHOWN FOR CLARITY the fully closed position. **HEADPLATE** • Using a 1-1/2" open end wrench wind the spring by turning the Winding Nut the specified number of turns indicated on your door drawing sheet. The winding direction would be the same as the direction to open the door for both left and right hand drive. See FIG 19A and 19B. Check the balance of the door. If needed raise the door and adjust CURTAIN the number of turns to achieve proper balance. GUIDE FIG 19A FIG 19B **STEP 3** ATTACH BOTTOM BAR STOPPER • Cut the banding and carefully lower the curtain into the guides to the fully closed position. • With door in the closed position attach stopper using track bolts and nuts provided, as shown in FIG 20A and FIG 20B. ATTACH FRONT HOOD AND FASCIA STEP 4 Position hood and fascia in place as shown in FIG 21. • Align the hood and fascia and attach using the #10 tek screws provided. See FIG 21. • If your door is 12'-0" or wider you must also attach the hood to the hood band, supporting the center of the hood with #10 tek screws provided.



STEP 5 ATTACH GUIDE COVERS

- Align guide covers on guides and snap into place. See FIG 22A.
- If needed guide covers can be removed using a flat head screw driver.

STEP 6 PLACE WARNING LABEL

• Place warning label on drive side guide at eye level. See FIG 22B



WARNING LABEL

STEP 7 LEVEL DOOR (IF NEEDED)

- If during previous step the door rolled up level and straight, skip this step.
- A. Check that guides are plum, square, level, and are properly mounted onto floor and wall.
- B. Check that the pipe is level.
- C. Check that the attachment of the curtain is straight on the pipe.

If all of the above is correct and the door still rolls up out of level, a shim may need to be added, as shown in

FIG 24.

Shim materials:

- A piece of rubber is the desired material for a shim.
- A piece of cardboard could be used but may deteriorate over time.
- Use a 1/8" x 6" x 6" thick piece of material and increase thickness or pieces depending on the result acquired, as shown in FIG 25.

Application of shim:

- To determine the side in which the shim will be applied, the door will need to be in the open position.
- When facing the door, the bottom bar will be unleveled. The lower side of the bottom bar will be the side in which the shim needs to be placed.
- The hood may need to be loosened or removed for the application of the shim.
- To apply the shim, two laborers might be required.

Installing the shim:

- D. Close the door fully.
- E. When door is at bottom make sure door is in hand chain mode.
- F. Turn off the power to the motor (if applicable) to ensure safe application of the shim.
- G. Backwind the door using the chain. Lock chain in place using chain keeper.

WARNING

When the door is wound backwards there is a force in which the door will want to wind forward. Secure the door in this position by locking hand chain onto chain keeper to prevent injury.

- H. As the curtain is wound backwards apply the shim to the lower side between the pipe and slats or on the ring of the low side.
- I. Restore power to the motor (if applicable).
- J. Check the level of the bottom bar while door is in the open position. If it is not level, add a second shim and check again.

NOTE: If the door has wind locks there may be some stacking interference in the wind locks as the door is wrapping during operation. This is a normal characteristic. For wind lock applications the doors bottom bar should be level at the open position.

STEP 8 MOTOR OPERATION SETUP

• If your door is equipped with a motor please refer to page 14 -16 for setup information and wiring.







MOTOR WIRING

Incoming power must meet all NEC and local building codes, plus be properly sized for the motor. To avoid the risk of electrical shock, the motor must be properly
grounded. Always install the power cable with a drip loop to prevent water penetration.

To avoid serious injury or death:

-It is recommended that line voltage wiring be performed by a qualified electrician.

-Be sure that electrical power has been disconnected from the input wires being connected to the operator prior to handling these wires. An appropriate lock-out/tag-out procedure is recommended.

-Line voltage must meet all local building codes.

-Make sure operator voltage, phase, and frequency ratings are identical to the job site line voltage ratings.

-Input power wiring must be properly sized for the operators amperage rating.

-This motor requires 115V, single phase, 60Hz power.

To avoid serious injury or death wall controls must be located within sight of the door. There are no safety edges used with this door.

To avoid serious injury or death DO NOT calibrate motor or operate door unless doorway is in sight and free of obstructions. Keep clear of opening while door is moving.

STEP 9 WIRE THE MOTOR AND SWITCH

Use the diagram in FIG 23B to wire the motor to the switch and power. The door system will be UL 325 compliant, ONLY if the momentary contact switch, requiring constant pressure to operate the door, is used. If your door is equipped with interlock switches, refer to FIG 23A and FIG 23B.



LIMIT SETTING INSTRUCTIONS

WARNING

To avoid serious injury or death DO NOT calibrate motor or operate door unless doorway is in sight and free of obstructions. Keep clear of opening while door is moving.

▲ CAUTION

To avoid damage to the door system, set the limits according to the instructions on this page:

-DO NOT use the door for standard operation before the limits have been set.

-The slat curtain can be over extended when lowered, and alternatively, the slat curtain can be wound up against the bottom bar stop, both situations could cause damage to the system.

-Be prepared to stop the motor at any moment while setting the motor limits.

STEP 10 SETTING MOTOR LIMITS

• Looking up at the bottom of the operator you will see two colored limit setting screws. One red and one white. Adjust them according to the guide below to find and set the upper and lower limits.

NOTE: Each motor has a Thermal Cut Off to prevent it from over heating. Factory set limit is about 4 minutes of operation. This is a thermal setting and not a timed setting. The environmental condition of the job site will shorten the operating time before the Thermal Cut Off will activate. Allow at least 20 minutes of cooling time (it may take up to 45 minutes) before the motor will return to regular operation.



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MAINTENANCE INSTRUCTIONS

OWNER'S RECOMMENDED PREVENTATIVE MAINTENANCE

To keep shutter in good working condition, these are some things we recommend doing:

• Keep guides of shutter system free from any debris at all times.

<u>Every month</u>

• Wipe down the inside of shutter system guides with a damp towel to remove any dirt or debris.

• If you so choose, you can wash the security shutter curtain. Be sure to completely close the shutter and wipe down curtain with towel and a mild cleanser. Be sure to wipe off any cleanser with a clean towel.

Every six months

The above frequency of maintenance is for normal low cycle operation. Frequency of operation or unusual operating conditions may require modification of the times between maintenance.

- The guides should be lubricated with a paste wax or silicone spray.
- All bearings provided with grease fittings should be lubricated. If so equipped, find bearings located in the drive bracket and tension end of the counterbalance.
- **NOTE:** On crank operated shutters, the crank assemblies are sealed with grease and should not require lubrication.

• Locking mechanism: be sure to lubricate locking cylinder per lock manufacturer's suggestions.

BENEFITS OF PROFESSIONAL PREVENTATIVE MAINTENANCE PROGRAM

There are many benefits to opting into a Professional Preventative Maintenance Program, where the local dealer's technician services your shutter system on a scheduled basis. Contact your local Wayne Dalton dealer for more details on their program offering.

- Increase operational efficiency, safety and reliability
- Extend useful life of your equipment
- Reduce probability of equipment malfunctioning
- Decrease costly downtime
- Priority scheduling for service

Establish relationship with experienced, service-oriented professionals

RECOMMENDED SCOPE OF WORK FOR PROFESSIONAL SECURITY SHUTTER PREVENTIVE MAINTENANCE PROGRAM

It is recommended that you arrange for a Wayne Dalton dealer's professional installer/technician to perform the following as precautionary measures to keep

▲ WARNING

To avoid serious injury or death do NOT attempt to perform the following maintenance, or try to remove, install, repair or adjust springs or anything to which door spring parts are fastened, such as, wood blocks, steel brackets, cables or other like items. Installations, repairs and adjustments must be done by a trained door system technician using proper tools and instructions.

your shutter system running smoothly and to maximize the life of the product.

SECURITY SHUTTER:

- 1) Inspect shutter alignment and level.
- 2) Inspect slats and endlocks for damage.
- 3) Inspect guides, bottom bar and hood for damage.
- 4) Inspect all bottom astragal for wear or damage.
- 5) Adjust spring and lubricate bearings.
- 6) Inspect and tighten fasteners.
- 7) Inspect locks for proper operation.
- 8) Inspect safety labels, placement and condition.

ELECTRIC TUBE MOTOR OPERATORS:

- 1) Inspect and adjust limit switches.
- 2) Inspect operator mounting.
- 3) Inspect and test disconnect for manual override.

Model 523

Limited Warranty

Wayne Dalton, a division of Overhead Door Corporation, ("Seller") warrants to the original purchaser of the security shutter model 523 ("Product"), subject to all of the terms and conditions hereof, that the Product thereof will be free from defects in materials and workmanship under normal use for the following periods, measured from the date of installation

24 MONTHS on all parts and components of the Product

Covered Components with Powder Coat Finish: Two (2) years against excessive fading, cracking, blistering, flaking or peeling of the Powder Coat Finish; Covered Components shall mean: metal guides. bottom bars, head plates, hood and curtain slats of the Product

Seller's obligation under this warranty is specifically limited to repairing or replacing, at its option, any part or component which is determined by Seller to be defective during the applicable warranty period. Repair or replacement labor for any defective Product component is excluded and will be the responsibility of the purchaser.

This warranty is made to the original purchaser of the Product only, and is not transferable or assignable. This warranty does not apply to any unauthorized alteration or repair of the Product, or to any Product or component which has been damaged or deteriorated due to misuse, neglect, accident, failure to provide necessary maintenance, normal wear and tear, or acts of God or any other cause beyond the reasonable control of Seller. This warranty does object, and any fading or color change which may not be uniform due to unequal exposure of the curtains to sunlight or other elements. Wearing away of the painted surfaces of the Product is a common occurrence resulting from the saltwater. This warranty specifically excludes any damage resulting from scratching, abrasion or impact by any hard caused by exposure to salt water, chemical furnes or other corrosive or aggressive environments, whether naturally occurring or man-made, including, but not limited to, environments with a high degree of humidity, sand, dirt or grease. This warranty does not apply if the Product is installed within 2000 meters of any ocean or other body of not apply to any damage or deterioration caused by door slats rubbing together as the door rolls up upon itself or curtain repeatedly coiling upon itself and uncoiling during normal usage (See DASMA #274), and is specifically excluded from this warranty

THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

COLLATERAL, PUNITIVE, INCIDENTAL OR CONSEQUENTIAL DAMAGES, even if Seller has been advised of the possibility of such damages. Such excluded damages include, but are not limited to, loss of goodwill, loss of profits, IN NO EVENT SHALL SELLER BE RESPONSIBLE FOR, OR LIABLE TO ANYONE FOR, SPECIAL, INDIRECT loss of use, cost of any substitute product, interruption of business, or other similar indirect financial loss

writing to the authorized dealer or installer whose name and address appear below. The purchaser must allow Seller a reasonable opportunity to inspect any System claimed to be defective prior to removal or any alteration of its condition. Proof of the purchaser may be required. Claims under this warranty must be made promptly after discovery, within the applicable warranty period, and in

Product Type:

Customer Name (Original Purchaser):

Customer Installation Location:

Date of Installation: Order #

Name of Dealer/Installer

Signature of Dealer/Installer:

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