Installation Instructions, Package Unit

ECO# 2158 REVISION# 001 **ES 10-489 DATE 03/17/2022**

Section 1 – Table of Contents

Package Units consist of a fully welded frame with a factory pre-tensioned spring. The units are top heavy due to the shaft and curtain weight in the top of the unit. The door operates with the help of electric motors or manual operators (crank, push up, etc.), and most have factory pre-tensioned springs. These items and their components can cause injury. In order to avoid injury to yourself and others, please follow the instructions in this manual.

- **Review the potential hazards and preventative measures listed below:**

Table 2.1 - Potential Hazards and Preventative Measures

Potential Hazard		Preventative Measure
	**⚠DANGER** **Pinned or crushed by closing door.**	• Keep yourself and others clear of opening while door is in motion. • Do not allow children to play near or operate door. • Do not operate if door becomes jammed or broken.
	**⚠WARNING** **Struck by adjusting wheel bar while applying spring turns.**	• Be sure bar is adequate in strength and long enough to allow installer to apply the necessary torque. • Make sure bar is fully seated into the adjusting wheel slot before applying pressure. • Use two bars while applying turns to the adjusting wheel.
	**⚠WARNING** **Electrical shock.**	• Make sure electrical operator is properly grounded. • Turn off source power completely prior to servicing the motor. • Make sure wires are clear of any moving or potentially moving parts. • Avoid pinching wires when installing the motor cover.
	**⚠WARNING** **Pinched by moving components.**	• Make sure the motor is turned off and unplugged before working with moving parts such as roller chain and sprockets, drop-out mechanisms, adjusting wheels, etc. • Locate the possible pinch-points of the unit (Drive chain, coil area, bottom bar, etc.) Do not operate the door while someone is near these areas.

- **Check the following during installation and before leaving the job site:**
  a. Verify the door operates properly.
  b. Check all fasteners holding the unit to the building structures.
  c. Check all fasteners used to assemble the components of the unit together.
  d. Instruct owner or representative in the proper method of operating the door.

- **Upon delivery, check condition of components for damage.**

- **If damage occurred in transit, the installation should not proceed without authorization.**

NOTICE

If the installation proceeds, neither the carrier nor the manufacturer will assume responsibility for replacing the damaged material.

- **If the installation is stopped due to damage, do the following:**
  1. Take pictures of the damage.
  2. Do not move material from point of delivery to other premises once the damaged components are discovered.
  3. Do not unpack, if the damage is visible prior to removing packaging, until an inspection is made.
  4. If the damage is found while removing contents from packaging, the packaging material must be saved until inspection is made.
  5. Container and packaging should be retained by consignee until inspection is made.
  6. Have components inspected by carrier's representative within 15 days from date of delivery.
  7. Consignee must obtain a copy of the Inspection Report.

- **Returning damaged components:**
  1. Obtain permission from carrier to return.
  2. Route the return shipment via the identical carrier(s) involved in the original shipment.
  3. Notify the manufacturer when shipment is returned to manufacture plant.

- **Verify that all components have arrived. Look for the following:**
  1. Job construction drawings featuring different views (elevation, section, plan, etc.)
  2. Hardware
  3. Misc. items (guide seals, lintel seal, pull down pole, crank handle, etc.)
  4. Verify material/finish/color of components matches what is listed on the job construction drawings and/or what was ordered.

- **If the delivery is incomplete:**
  1. Make note on delivery receipt.
  2. Note should be verified by driver's signature.
  3. Notify carrier and manufacturer.

Section 4 - Pre-installation

- **Read entire instruction manual thoroughly. The manufacturer will not be held responsible for any charges incurred due to improperly installed components.**
  a. Only trained door systems technicians should perform installation, maintenance, etc.
  b. Each unit comes with an individual item number. If the job contains multiple units, be sure to locate all the components for each item and separate each.

⚠WARNING

Do not interchange parts from one door to another.

  c. Find the submittal package drawings for the unit being installed and check the dimensions of the opening against those on the drawings. See ***Figure 4.1 and 4.2***.
  d. If the opening dimensions differ from those on the drawings, **do not proceed,** check with distributor/manufacturer to be sure the correct door is being installed.
  e. Check the jambs of the opening for plumb. Check the head/lintel and floor for level. Check the wall thickness matches the submittal package drawings provided.

- **Work Area:**
  a. The key to a smooth installation is a clean and well-prepared work environment. Once the components have been inspected and the job construction drawings have been reviewed; lay out the components in the order of installation.
  b. The opening for the door should be cleaned and inspected for rough surfaces and construction debris.
  c. Lastly the mounting hardware supplied with the door should correspond with the surface and construction features of the opening.

Figure 4.1 – BJ Package Unit Dimensions and Designations

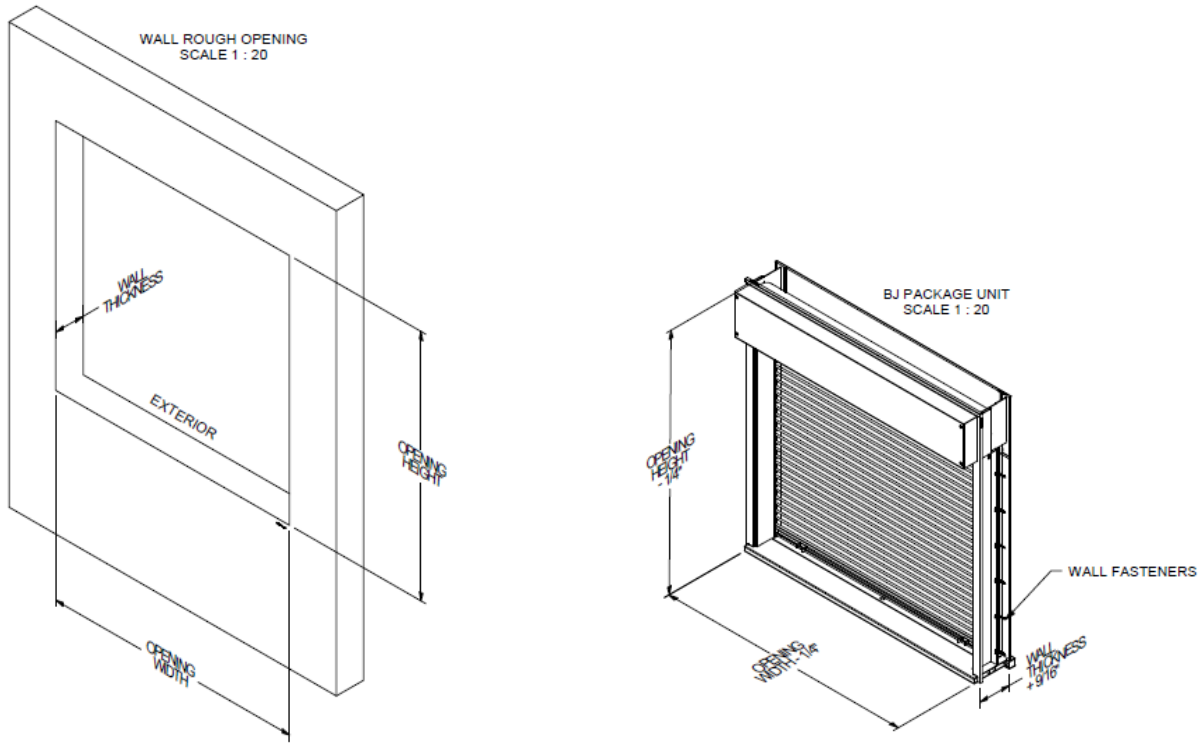
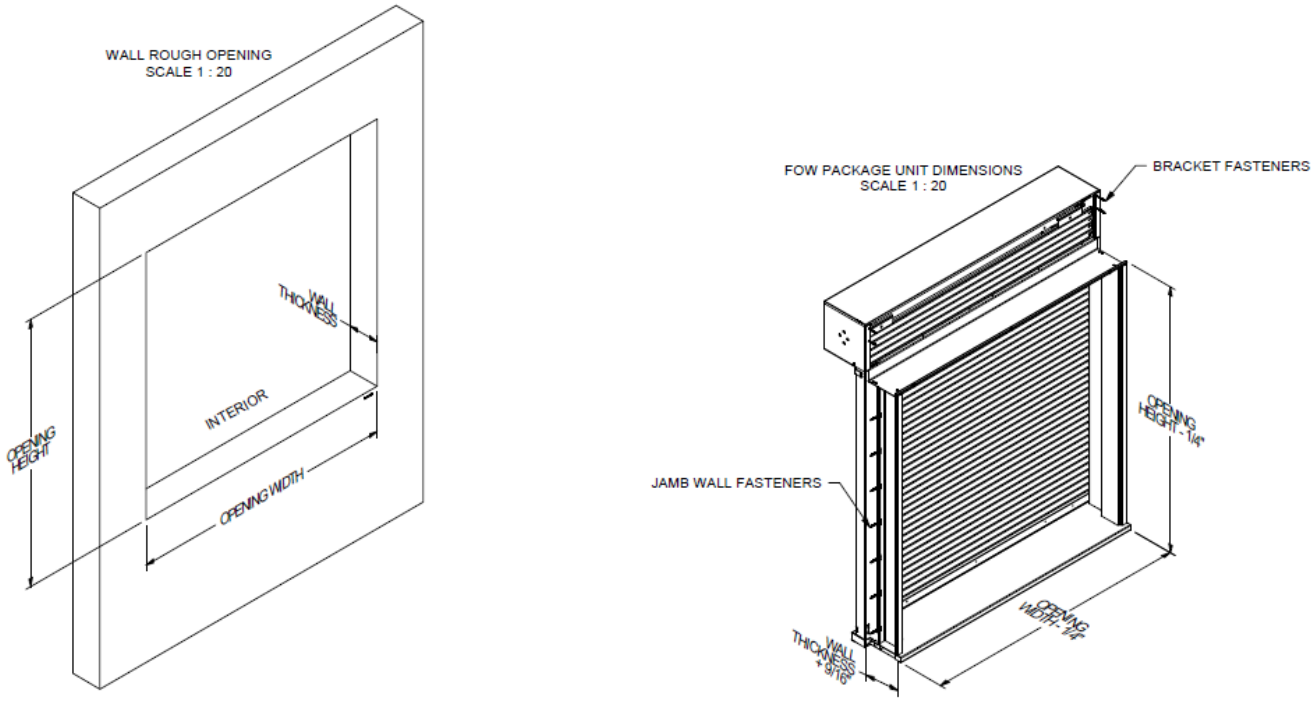


Figure 4.2 – FOW Package Unit Dimensions and Designations



Section 5 – Installation Instructions

Notes: Do not lift unit at the center of the sill or coil area! Lift only by the side jambs or beneath the sill directly below the jambs to prevent damage.
For push-up or crank operated units: the spring is tensioned at the factory.

- **BJ Package Unit Installation: Refer to figure 4.1**
  1. Remove the hood and keep the (4) fasteners.
  2. Lift and insert the BJ package unit into the wall opening from the exterior of the opening.
  3. Check the jambs and sill are plumb / level with the wall. Shim the sill to level the unit.
  4. Fasten the package unit to the wall using the wall fasteners provided through the both jambs. Ensure that the fasteners are not protruding from the jambs.
  5. Verify the door operates smoothly.
  6. For motor operation: connect the power per the motor instructions on the next page.
  7. Set the limits for the closed and open positions as instructed in the motor instructions.
  8. Re-install the hood using the fasteners removed previously.
  9. If bottom bar locking is provided: verify the locking works properly.
  10. Install the side and top trim on the interior of the package unit using the screws provided.
  11. The installation is complete.

- **FOW Package Unit Installation: Refer to figure 4.2**
  1. Insert the FOW package unit into the wall opening from the interior of the opening.
  2. Check the jambs and sill are plumb / level with the wall. Shim the sill to level the unit.
  3. Fasten the package unit to the wall using the (4) fasteners through the both brackets.
  4. Install the remaining fasteners through the both jambs into the wall. Ensure that the fasteners are flush with the jambs.
  5. Verify the door operates smoothly.
  6. For motor operation: connect the power per the motor instructions on the next page.
  7. Set the limits for the closed and open positions.
  8. Re-install the hood using the fasteners removed previously.
  9. If bottom bar locking is provided: verify the locking works properly.
  10. Install the side and top trim on the exterior of the package unit using the screws provided.
  11. The installation is complete.

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DMI Tubular operators with manual override for rolling doors & roller shutters

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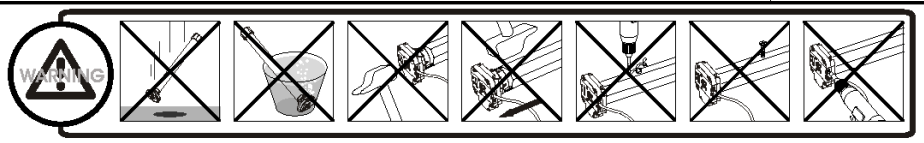
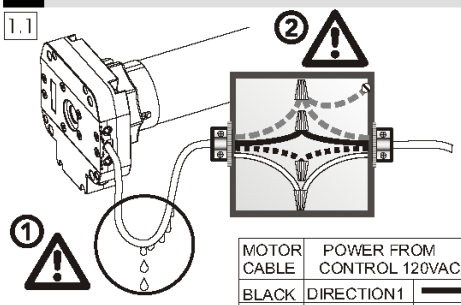
Read all instructions carefully before use.



1 Wiring

1.1



OPERATOR WIRING CHART

MOTOR CABLE	POWER FROM CONTROL 120VAC
BLACK	DIRECTION1
RED	DIRECTION2
WHITE	NEUTRAL
GREEN	GROUND

1.1 DMI Hz PERMANENT WIRING

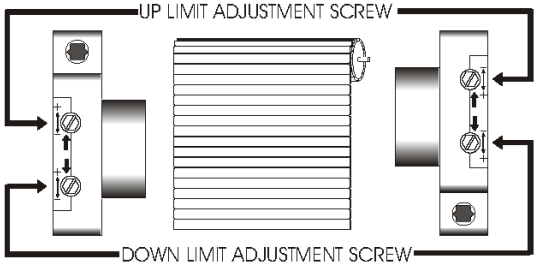
All wiring must conform to the National Electrical Code and local codes

- (1) The motor must be installed with a drip loop to prevent water intrusion
- (2) Connect the motor to power using a Listed junction box with appropriate cable strain reliefs.
- It is recommended a method of power disconnect for each motor be placed within sight of the motor to cut power during servicing.
- Do not use the motor cable to penetrate building walls. Connect the motor to power in a Listed junction box and from the Listed junction box run power in the manner proscribed by NEC and local codes.

2 Setting the Limits

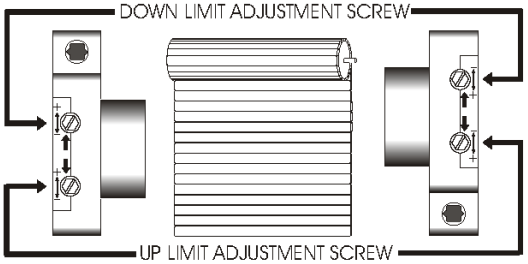
LIMIT ADJUSTMENT SCREWS ON OPPOSITE SIDE FROM MOTOR CABLE

MATERIAL ROLLS DOWN ON SAME SIDE AS LIMITS



1

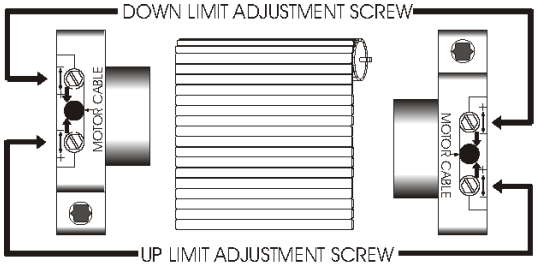
MATERIAL ROLLS DOWN ON OPPOSITE SIDE FROM LIMITS



2

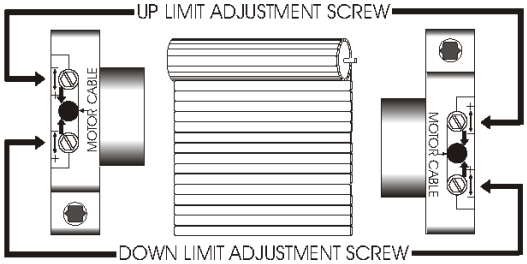
LIMIT ADJUSTMENT SCREWS ON SAME SIDE AS MOTOR CABLE

MATERIAL ROLLS DOWN ON SAME SIDE AS LIMITS



3

MATERIAL ROLLS DOWN ON OPPOSITE SIDE FROM LIMITS



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2.1 Identify which limit adjustment screw controls the up limit and which controls the down limit (see above diagrams). It is important to note that the arrows by the limit adjustment screw refer to the tube's rotation. Thus if the material comes off the tube on the back side and you are adjusting the limits from the side that the motor cable is not on (as per diagram 2), the limit adjustment screw with the arrow facing up controls the down limit and vice versa.

2.2 Turning an adjustment screw positive (+) will increase the maximum travel in the direction that it controls, and turning it negative (-) will decrease the maximum travel. **For the adjustment screws on the side without the motor cable,** turning clockwise is positive (+) and counterclockwise is negative (-). **For the adjustment screws on the side with the motor cable,** turning clockwise is negative (-) and counterclockwise is positive (+)

2.3 To set a limit, run the motor in the selected direction.

2.4 If the motor stops on its own before reaching the desired stop, turn the appropriate limit screw positive. Every 2 to 3 turns of the limit adjustment screw will allow the motor to travel about 1 inch further. After every few turns of the limit adjustment screw, use the control switch to move the motor to the new limit position. (If the motor does not stop on its own before reaching the desired limit, go to step 6)

2.5 When you are approximately at the desired limit position, use the control switch to run the motor away from the limit 2 to 3 feet, and then back. This will allow you to see precisely where the limit is set. Make small adjustments and repeat.

2.6 If the motor does not stop on its own at least 6 inches before the desired limit position, stop the motor with the control switch.Then turn the limit adjustment screw in the negative direction. Confirm that the motor is stopped at the limit and set the limit as per steps 4 and 5. If the motor is not stopped at the limit, continue turning the limit adjustment screw (up to 120 turns may be required)

NOTE: The motor has a built in thermal cutoff. If after several minutes of use the motor will not run in either direction, allow the motor to cool for approximately 20 minutes.

Section 6 – Troubleshooting

- **Maintenance Schedule:**
  Note: *If any of the following problems exist,* ***<u>do not</u>*** *operate the door until repaired.*

Component	What to look for and how often the components must be inspected:	Weekly	Monthly	Quarterly	What to do if problem exists:
Curtain & Bottom Bar	Are any curtain components damaged (slats, endlocks, etc.)?	X			Contact Service about replacing damaged parts.
	Is bottom bar damaged?	X			Contact Service about replacing damaged parts.
	Are bottom bar fasteners in place and properly tightened?		X		Fasteners must be inspected/replaced and properly tightened.
	Are fasteners attaching curtain to the barrel in place and properly tightened?		X		Fasteners must be inspected/replaced and properly tightened.
	Do you notice any hang-ups, jamming or other problems preventing the door from moving smoothly throughout the opening?	X			Ensure all jamb fasteners do not protrude from the jamb. Check for external issues, if none exist, contact Service.
	Do you notice any odd or excessive noise when the door is operated?	X			Check for external issues, if none exist, contact Service.
	If there is a bottom seal, is it damaged?		X		Contact Service about replacing damaged parts.
	If there is locking, does it function properly?	X			Check for external issues, if none exist, contact Service.
Brackets	Do you notice signs of excessive wear on the bearings (i.e. binding, excessive noise, etc.)?		X		If there is a grease fitting, apply grease, if not, contact Service.
	Is adjusting wheel & pin secure?			X	Contact Service.
Guides/Jambs	Are wall fasteners in place and properly tightened?		X		Fasteners must be inspected/replaced and properly tightened.
	Is guide gap dimension correct?		X		Check job construction drawings and adjust gap as required. If job construction drawings are not available, contact Service.
	Are any of the guide parts bent or damaged?		X		Contact Service.
	Are stoppers loose, damaged, or missing?		X		Stoppers must be inspected/replaced and properly tightened.
Hood and Fascia	Is hood/fascia dented or damaged?			X	Remove hood/fascia. Repair if possible. If not leave hood/fascia off and contact Service.
	Are guide assembly fasteners in place and properly tightened?		X		Fasteners must be inspected/replaced and properly tightened.
	Is hood support level?			X	Check fasteners, they may be loose or missing. Replace as soon as possible.
Door operation	Does the door require excessive force to open?		X		Check for hang-ups or obstructions. Ensure spring tension is set correctly. Contact Service.
	If the door contains locking, does the locking mechanism function properly and securely hold the door in the closed position?		X		Check for damage and other external issues. Contact Service.
Motor Operator	Are the fasteners attaching the motor-to-the mounting bracket, and mounting bracket-to- the door bracket secure?			X	Fasteners must be inspected/replaced and properly tightened. Contact Service for replacement hardware.
	Is the door stopping correctly at the open (before bottom bar contacts the stoppers) and closed (as soon as the bottom bar contacts the floor) positions?		X		Limits may have to be adjusted in the motor operator. Refer to the operator owner's manual or contact Service.
	Is the operator functioning normally?		X		Refer to the *Operator Troubleshooting Table* on the following page to diagnose the problem.

Section 6 – Troubleshooting

- **Operator Troubleshooting:**
  ***Note**: If you suspect you are having an issue with your operator, use the following table to determine the potential causes. If the provided solution does not eliminate the issue, or the table does not address your particular problem, contact the Service Department.*

Component	Problem	Potential Cause	Solution
Motor Operator	Motor Operator does not run when OPEN or CLOSE button is pushed	The circuit breaker may be flipped or fuse blown.	Reset breaker or replace fuse. Contact Service if replacement fuse is needed.
		The thermal overload may be tripped.	Reset thermal overload.
		Manual interlock switch is open (on units with emergency operator).	Close manual interlocks.
		External interlock may be opened.	Close external interlock.
	Motor operator runs but the door does not move	Clutch may be slipping.	Adjust if possible. Contact Service otherwise.
	Motor hums but does not run	Dead phase in 3 phase system.	Check power supply.
		Brake does not release.	Check power to brake solenoid.
		Open motor winding.	Check that all connections are secure.
	Motor operator runs in wrong direction and limits do not function	Brake may be improperly adjusted or broken.	Check brake components. Contact Service for replacement parts or adjust instructions.
	Door drifts when motor shuts off	Limits may need adjustment.	Refer to the operator owner's manual to readjust limits.
	Motor operator does not shut off at full OPEN or at full CLOSE position	Limit switch may be defective.	Contact Service.
Limit Switches	Limit switch does not hold setting	Limit nut retainer not engaging slots in limit nuts.	Be sure retainer is securely engaged in slots of both limit nuts.