

# OptiFlow<sup>™</sup> Vertical Power Stacker **DIVS**



**Operator Guide** US/Canada English Version

SV61322 Rev. C 5/06

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# Contents

Important Safety Notes1
$OptiFlow^{{}^{\mathrm{T}\!\mathrm{M}}} \text{ Vertical Power Stacker Technology }2$
Capacity2
Stacker-to-Inserter Communications2
Stacker Access2
Equipment Features
Adjusting Stacker Wall4
Unloading Material4
Clearing Stalls from the Stacker5
Clearing Stalls in a Stacker Attached to a DI380/DI425 or
a DI500/DI6006
Clearing Stalls in a Stacker Attached to a DI900/DI9507
Getting the Most from Your Stacker8
Troubleshooting9
What the Stacker LEDs Mean9
Stacker Error Messages—DI500/DI600 Inserter9, 10
Stacker Error Messages—DI380/DI425 Inserter 11, 12
Stacker Error Messages—DI900/950 Inserter13
Stacker Operation in Non-Communicating Mode14
Specifications15
Size and Weight15
Capacity15
Stack Weight15
Compatible Inserters15
Envelope Size and Weight16
Power
Communications Interface with Inserter16
Stack Order16
If You Need Assistance17
USA Contacts17
Canada Contacts17

# Important Safety Notes

Follow these basic safety precautions when operating this machine and the specific occupational safety and health standards for your workplace:

- Use only Pitney Bowes approved supplies, in particular aerosol dusters. Improper storage and use of aerosol dusters or flammable aerosol dusters, can cause an explosive-like condition that could result in a personal injury and/or property damage. Never use aerosol dusters labelled flammable and always read instructions and safety precautions on the duster container.
- Read all instructions before operating the equipment. Only use the equipment for its intended purpose.
- Use the power cord supplied with the machine. Plug it and all other supplied power cords into a properly grounded wall outlet that is located near the machine and easily accessible, meaning it is free from obstruction and there is enough room around the unit for servicing.
- Use only the AC adapter designed specifically for the stacker. Third-party AC adapters may damage the stacker.
- The power cord wall plug is the primary means of disconnecting the machine from the AC supply.
- Do not use an adapter plug on the line cord or wall outlet. Do not remove the ground pin from the line cord.
- Avoid using wall outlets controlled by wall switches or shared with other equipment. Do not route the AC adapter cable or power cord over sharp edges, or allow it to be trapped between furniture and/or furniture and the wall.
- Keep hands, loose clothing, jewelry, and long hair away from all moving parts.



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Moving mechanism can result in personal injury. Keep hands, long hair, ties, jewelry and loose clothing away from moving parts.



- Do not remove covers. Covers enclose hazardous parts that should only be accessed by properly trained service personnel.
- Immediately report to Pitney Bowes Service any damaged or non-functioning components. The unit may be unsafe for use.
- Operation of this equipment without periodic maintenance will inhibit optimum operating performance and could cause the equipment to malfunction. Contact Pitney Bowes for the required service schedule.

### Optiflow<sup>™</sup> Vertical Power Stacker Technology

The Optiflow<sup>™</sup> Vertical Power Stacker is a compact, powered, bottom-feed stacker that connects to the output of several Pitney Bowes Document Inserting Systems, including the DI380/DI425, the DI500/ DI600 and the DI900/950 Series. It neatly stacks the mail pieces fed from the inserter and keeps them in the same order as they were originally loaded.

Sensors in the stacker monitor the mail pieces fed into it; if a mailpiece should stall or the stacker fills up, the inserter stops automatically. The stacker is designed for continuous unloading during mail runs to maintain best productivity. Unloading "on-the-fly" keeps your mail run going and helps avoid unnecessary interruptions.

### Capacity

The stacker has a maximum capacity approximately equal to one standard USPS mail tray (21-inch stack). Actual capacity will vary, depending on mail piece thickness and environmental conditions.

The stacker provides enough capacity so that by unloading on-thefly, you are free to take care of other mail operations. The mail stack reaches maximum height only if you cease to unload on-the-fly. The stack height grows until it either trips the stacker-full sensor or trips another sensor that protects the motor from overloads due to a heavy stack.

### Stacker-to-Inserter Communications

Communications between the inserter and stacker are handled by a serial (DI380/DI425 and DI500/DI600) or USB (DI900/950) interface cable. The stacker interface is "intelligent," which means the inserter will stop automatically when the stacker stops due either to an error or stacker-full condition.

### Stacker Access

For DI380/DI425 and DI500/DI600 Series Inserters, a sliding tray assembly allows you to easily move the stacker away from the inserter to clear stalled mail pieces.

For DI900/950 Series Inserters, a hinged mount allows you to open the stacker to clear stalled mail pieces.



# **Adjusting Stacker Wall**

 Grasp the stacker wall from top and slide up or down to an appropriate position. Use the knob on rear to tighten wall into place.



**NOTE:** It is possible that envelopes at the bottom of the stack could deform as stack weight increases. If this is a problem, set the height of the stacker wall to a lower position.

# **Unloading Material**

• Lift material from top of stack. Do not overfill hands to the point where they are in a strained or unnatural position.

**NOTE:** You can remove material from the stack while the stacker is running. The stacker will run as long as the stack-full sensor is not blocked for more than 1/2 second.



# **Clearing Stalls From the Stacker**

• Lift or remove material from stack and remove stalled piece.



Stalled Piece

OR

 For DI380/425 and DI500/600 Series Inserters, slide out the stacker from the inserter base and remove the stalled piece or pieces as shown in the figure, right. See the detailed instructions on the next page.



• For DI900/950 Series Inserters, unlatch the stacker, open it and remove the

stalled piece or pieces. Refer to the instructions on page 7.

**NOTE:** When the stacker stops, the operator display on your inserter will typically display a message telling you what happened and how to resume operation.

You can also check the status of the stacker by looking at its status lamp (LED). See page 9 for more information.



Reset Switch

In the case of some stacker errors, you may have to press the stacker's RESET switch, figure, above, to resume normal operation.

# Clearing Stalls in a Stacker Attached to a DI380/DI425 or DI500/DI600

1. Slide the stacker out, away from inserter.





2. Lift the plastic cover (A) and lower the envelope exit area door (B) of the inserter. Remove stalled material and close latches.





3. Slide stacker back into inserter. Make sure to push stacker all the way in, otherwise safety interlock will not engage and system won't run. Press reset switch on back corner of stacker (4) or Start key on inserter.





# Clearing Stalls in a Stacker Attached to a DI900/950

1. Push the stacker release lever UP.



2. Open the stacker as shown below and at the right. It's hinged on one side. Clear all stalled material from the stacker.



3. Close the stacker.



4. Push the stacker release lever DOWN to lock the stacker in place.







- 5. Resume operation as follows:
  - Double check that you have cleared all stalled material.
  - b. Press the START button on the inserter's control panel.

**NOTE:** Some stacker faults may require you to press the stacker's RESET switch to resume normal operation. See the error messages listed on page 11. The reset switch is shown on page 5.

SV61322 Rev. C

# **Getting the Most from Your Stacker**

In most cases, the stacker will run and stack up to the maximum of 21 inches (the full length of a US Postal Mail Tray).

However, this may prove impractical for certain applications and conditions. *We recommend that you adjust the stacker to 3/4 height (approximately 16 inches) to start off.* This will provide most applications with the best compromise between stack height and quality.

Some applications and operating conditions warrant a lower maximum stack height to ensure consistent stack quality in the event you let the system run to maximum stack height. Should this arise, lower the maximum stack height by 1 to 2 inches until best stack quality is achieved.

Factors that affect maximum stack height include:

- Stack integrity (how neatly the envelopes align);
- Sealing quality (clean seals void of wrinkles or other imperfections);
- Outer envelope quality (no impressions or imperfections caused by stacker components, guides, or the stack itself);
- Humidity and temperature extremes; and
- Poor materials, such as some recycled envelopes and materials that have been improperly stored (not in a cool, dry place).

Keep the following in mind when you use the stacker:

- Standard practice is to unload on-the-fly, so that maximum stack height is reached infrequently, if ever at all.
- In some cases, before the stack reaches the top of the stacker wall, the stacker LED will blink red or green, indicating that it needs to be emptied. This is a normal condition and simply means that the stack is too heavy.
- Excessive wetting may cause flap distortion. To alleviate this problem, use Pitney Bowes E-Z Seal<sup>®</sup> solution in the inserter's sealing reservoir. You may also set the stacker wall to a lower position and/or remove part of the stack while the job is running.

# **Operator Guide**

# Troubleshooting

### What the Stacker I EDs Mean



Stacker LED

what the Stacker LEDS Mean		
LED	DI380/425/500/600	DI900/950
No Light	No power to stacker.	No power to stacker.
Green On	Normal operation.	No error. Normal Operation.
Green Blinking	Stacker almost full; remove stack.	Not applicable.
Amber	Not applicable.	Stacker almost full. Remove stack.
Red Blinking	Stacker full; remove stack	Not applicable.
Red On	Press reset switch to clear error condition	Error. Correct error condition. See page 11.
Red - 2 Blinks	Transport jam; remove stalled piece and press reset switch or Start key on inserter	Not applicable.
Red- 3 Blinks	Cover open or stacker pulled away from inserter; close cover or slide stacker into place. Press reset switch or inserter Start key.	Not applicable.
Red - 4 Blinks Red - 5 Blinks	Stacker error; remove stalled piece if present and press reset switch or inserter Start key.	Not applicable.

### Stacker Error Messages Displayed by DI500/DI600 Inserter

Error Message	Solution	Additional Comments
E196 — Power Stacker Obstruction	Empty stacker and check for obstruc- tions. Press Clear Deck to continue. <b>NOTE:</b> Clearing deck may feed un- inserted material to stacker. Remove material <i>before</i> re- starting.	Clear obstructions in stacker entry area. You may have to pull the stacker away from the inserter to clear the stall. Pressing Clear Deck clears both the inserter and resets the stacker. The inserter display goes back to its home ready screen. Press Start to continue.

# Stacker Error Messages Displayed by DI500/DI600 Inserter (Continued)

Error Message	Solution	Additional Comments
E197 — Power Stacker Obstruction	Remove material from Power Stacker, check for obstruc- tions, Press Clear Deck to continue.	None.
E198 — Power Stacker Not Engaged	The power stacker is pulled away from the inserter. Push firmly toward the inserter until the stacker is fully engaged.	This is caused by not mov- ing the stacker back into its proper position against the inserter. <b>NOTE</b> : The stacker uses rails to make it as easy as possi- ble to slide the stacker in and out. If for some reason the rails are bent and the stacker can not be moved back to its proper position, this error could persist. Call for service if you notice this situation.
E108 — Power Stacker Not Detected	Check the power stacker connections, press Cancel and then Start to retry. If unsuccessful, select Uninstall Stacker. See comments at right.	Check the cable that con- nects the stacker and inserter for correct installation. If this problem persists, call for service. <b>NOTE:</b> If you like, you can select "Uninstall Stacker" (an option on the inserter display that appears with this mes- sage) and disable the stacker connectivity. This allows you to run the stacker in non- communicating mode until service can resolve the prob- lem. See page 14 for details.
E109 — Empty The Power Stacker	Remove completed mail pieces from the power stacker.	The stacker needs to be emptied. See <i>Getting the</i> <i>Most from Your Stacker</i> for details on adjusting stack height for your material.

# Stacker Error Messages Displayed by DI380/DI425 Inserter

Error Message	Solution	Additional Comments
Stacker Not Detected; Press START to Retry or STOP to Uninstall.	Check the serial cable that connects the power stacker and inserter for correct installation. If this problem per- sists, call for service.	You can also press STOP to uninstall the stacker. This disables stacker communica- tions and allows you to run the stacker in non-commu- nicating mode until service can resolve the problem. See page 14 for details.
E118 — Check Stacker Position	The power stacker was pulled out dur- ing a trial piece run or mail job run. The safety interlock switch is open. Push the stacker back into its normal operating position.	The stacker slides on rails. If for some reason the rails are bent and the stacker can't be moved back to its proper position, this error could persist. Call for service if you suspect this.
E123 — Check Stacker Position	As above.	As above.
E116 — Stacker Error	Power stacker stopped. An error (cam failed to go to home position) occurred while per- forming an opera- tion.	Check for and clear any stalled material. Press the Reset button on the stacker. Press inserter START button to resume operation. If this condition persists, call for service.
Empty Stacker then Press START	The power stacker is almost full. Empty the stacker and press START to resume operation.	When this message displays, the inserter completes pro- cessing of all staged mail pieces and then stops auto- matically.
	If you press START without emptying the stacker, the inserter continues to run until the stacker is full.	We recommend that you empty the stacker frequently and do not allow it to become full.
	You can also press STOP to return to the home ready screen.	

# Stacker Error Messages Displayed by DI380/DI425 Inserter (Continued)

Error Message	Solution	Additional Comments
E114 — Stacker Full Press STOP	Empty the stacker. Press START to resume operation or STOP to return to the home ready screen.	This message occurs only if you choose to continue run- ning the machine without emptying the stacker after the "Empty Stacker" mes- sage displays. This is not recommended.
E117 — Clear Stacker Entry Area	A mail piece has stalled at the stacker entry. Pull the stacker away from the in- serter and clear the stalled material. Push the stacker back into position and inspect the in- serter transport . Press STOP to clear the error and return ton the home ready screen or press CLEAR DECK to clear the error and start the clear deck process.	Be sure to push the stacker all the way in to engage the safety interlock. Otherwise you'll see a stacker position error (E123).

# Stacker Error Messages Displayed by DI900/DI950 Inserter

Error Message	Solution Displayed	Additional Comments
230 — VPS Entry Nip Jam	Stacker stopped. Remove material from stacker.	Check for and clear obstruc- tions in the stacker, espe- cially in the entry area. It may be necessary to open the stacker (see page 7) to completely clear the stall. Press inserter START button to resume operation.
231 — VPS Cam Error	Stacker stopped. An error occurred while performing an op- eration.	Check for and clear any stalled material. Press Reset button on stacker. Press inserter START button to re- sume operation. If this condi- tion persists, call for service.
232 — VPS Cam Overcurrent	Stacker stopped. An error occurred while performing an op- eration.	The stacker stopped to protect against a motor overload. This is often due to a stack that's too heavy. Try removing finished mail pieces more frequently or lower stack wall height. Press Reset button on stacker and press START to resume op- eration.
233 — VPS Stack Overfull	Stacker full. Clear stacker.	Empty the stacker. See Optimizing Material Stacking, page 9, for details on adjust- ing stack height for your material,
234 — Stack Current Limit		See error 232 above.
389 — Almost Full Warning	Stacker almost full. Clear stacker.	Empty the stacker to avoid a stacker-full condition and system stop.
433 — VPS Cover Open	VPS cover open; close cover.	The stacker is not completely closed. Close the stacker all the way and push DOWN on the release lever to lock it in position.

# Stacker Operation in Non-Communicating Mode (DI380/DI425 and DI500/600 Only)

The stacker is designed to communicate with your Pitney Bowes inserter by means of a serial connection.

This is called an "intelligent" interface; it allows sensors in the stacker to monitor mail piece flow so that when the stacker fills up or a mail piece stalls, the inserter stops automatically.

If the "Stacker not Detected" or "E108-Power Stacker Not Detected" error displays on DI380/DI425 or DI500/DI600 inserters, respectively, check the serial cable (page 3) that connects the inserter and stacker. Try resetting the stacker (page 3), then press START. If this fails to correct the problem, you may run the stacker in non-communicating mode.

Select "Uninstall Stacker" (an option on the inserter display that appears with the error message). The error message will not occur again. The stacker is now in non-communicating mode; you can run it this way as a temporary measure until Pitney Bowes service can resolve the problem.

**IMPORTANT:** Please note the following when you run the stacker in non-communicating mode:

- No error messages will be sent to the inserter regarding the stacker. If a stalled mail piece or stack-full condition occurs, the inserter will continue to feed mail into the stacker and create more stalled mail pieces, eventually stopping the inserter.
- You must empty the stacker more frequently before it reaches maximum stack height and overflows.
- When an obstruction or stall does occur, do the following:
  - 1. Press Stop on the inserter.
  - 2. Clear any obstructions from the inserter and/or the stacker.
  - 3. Press the reset button on the stacker.
  - 4. Press Clear Deck on inserter to ensure materials are cleared.
  - 5. Press Start or follow any additional instructions on the inserter's display.

# Specifications

### Size and Weight

*Weight: 21 lbs. Size:* 17 inches wide by 24 inches high

### **Recommended Temperature and Humidity**

	Minimum	Maximum
Temperature	60°F (16°C)	75°F (24°C)
Humidity	30%	60%

### Capacity

21-inch stack height, maximum, when fully extended.

**NOTE:** This is equivalent to the capacity of one standard USPS mail tray or approximately 300 envelopes with two tri-fold inserts each. Actual capacity will vary, depending on mail piece thickness and environmental conditions.

### Stack Weight

Stack weight is 20 pounds, maximum.

**NOTE:** It is possible that envelopes at the bottom of the stack could deform as stack weight increases. If this is a problem, set the height of the stacker wall at half-height rather than its fully extended position.

### **Compatible Inserters**

The OptiFlow Vertical Power Stacker is designed to operate with the following Pitney Bowes Document Inserting Systems:

- DI380
- DI425
- DI500
- DI600
- D900
- DI950

# **Specifications (Continued)**

### Envelope Size and Weight

**NOTE**: We recommend you use quality materials. Using recycled envelopes may prevent the stack from reaching full height due to deformation of the bottom envelopes caused by too much stack weight.

	Minimum	Maximum
Width	6.3 inches (162mm)	10.5 inches (266mm)
Depth	3.5 inches (89mm)	6.5 inches (165mm)
Weight	20 lb. (70g/m²)	24 lb. (90g/m²)



### Power

External power supply: 100-240 VAC, 50/60 Hz input; 24 VDC, 3A output. Power supply connects to auxiliary 120VAC outlet on DI500/DI600.

### Communications Interface with Inserter

Serial for DI380/DI425 and DI500/DI600 inserters; USB for DI900/950 inserters.

**NOTE:** If you disconnect the communications cable going to the inserter, the stacker can run by itself (DI380/DI425 and DI500/600 only) but no messages will be sent back to the inserter. See *Stacker Operation in Non-Communicating Mode*, page 14, for more details.

### Stack Order

Stacks in same order as the mail pieces were loaded into the inserter.

# If You Need Assistance

### USA Contacts

- Product Name: DIVS OptiFlow™Vertical Power Stacker
- For frequently asked questions, go to: www.pb.com and click on Customer Support.
- To place requests for service or training, go to: *www.pb.com* and click on **My Account**.
- To order PB supplies and accessories, go to: *www.pb.com* and click on **Online Store**.
- To view and pay invoices online, go to: www.pb.com and click on My Account.
- To view inventory, go to: www.pb.com and click on My Account.
- For direct questions, call: 1.800.522.0020. Customer Service Representatives are available Monday through Friday, 8:00 AM to 8:00 PM ET.

#### Canada Contacts

- Product Name: DIVS OptiFlow™
- For frequently asked questions or to order supplies, go to: *www.pitneybowes.ca*
- For direct questions, call: 1.800.672.6937. Customer Service Representatives are available Monday through Friday, 8:30 AM to 4:00 PM ET.



Engineering the flow of communication™

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