

Hamilton Manufacturing Corporation

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Dual Stacker

Operational Manual

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ABOUT THIS MANUAL

This manual was designed to introduce the Dual Stacker and to provide the operator with important information about installation and maintenance. To obtain assistance from the manufacturer, please call (800) 837-5561 or (419) 867-4858.

When calling for assistance, it is very important to have the serial number readily available. Please record this number in the space provided.

DUAL STACKER SERIAL # _____

I. INTRODUCTION

The Dual Stacker separates \$1 bills from higher denominations, keeping them in neat stacks. The \$1 bills are routed into the lower compartment while the higher denominations are routed into the upper compartment. The Dual Stacker is used in both rear load and front load model Bill Changers.

Compatibility

Validator

The Dual Stacker must be connected in a system using the HVX or XE Validator and a current version of the C2000 Controller (C230v1.9 or higher). Special harnessing and bracketing may be required. The C2000 Controller will control stacking operations. Both the C2000 Controller and the HVX or XE Validator have Configuration Switches that must be set to special positions. (Refer to the C2000 Controller Manual and the HVX or XE Manual.)

Operation

A validated \$1 bill passes directly into the Dual Stacker while the Dual Stacker Platen Assembly is in its upward neutral position. The Platen Assembly then strokes downward to capture the \$1 bill in the lower compartment and continues to run through the upward stroke to return to the “ready” or “home” position.

A validated bill of a higher denomination (\$5, \$10, or \$20) is reversed back into the Validator temporarily to allow the Platen Assembly time to index to a position below the exit of the Validator. The bill is then passed into the Dual Stacker and the Platen Assembly strokes upward to capture the bill in the upper compartment and returns to the “ready” or “home” position.

II. INSTALLATION & REMOVAL

Installation of Dual Stacker

Front Load Cabinet

The Dual Stacker is attached to the rear of the cabinet by three screws, or on a bracket depending on the cabinet model. Position the upper two holes in the Dual Stacker over the top two screws and install the lower screw. Hook the Validator Mounting Bracket onto the mounting pins of the Stacker. Attach the Support Bracket to the Validator Mounting Bracket and to the side of the cabinet. Connect the Validator and Stacker wiring harnesses. Place the Validator in the Validator Mounting Bracket.

Rear Load Cabinet

Place the Validator Wiring Harness over the top of the Validator to protect it during installation of the Stacker. Connect the Stacker wiring and place the wiring above the Stacker to protect it during installation. Place the Stacker just behind the Validator with the housing support pins slightly above the Validator Support Bracket and move the Stacker forward to contact the Validator bracket. Move the Stacker forward and down until the Stacker housing support pins rest in the slots of the Validator Support Bracket.



Proper operation of the Stacker requires it to be hanging vertically at this point.

As of November 11, 1996 and starting with Changer Serial Number R-21536, we are using a new mounting system for Rear Load Changers equipped with a Dual Stacker. The new system consists of a Main Bracket that bolts to the front of the changer cabinet and two Side Plates that are fastened to either side of the Validator. The Validator and Plates then slide into the Main Bracket and are secured. It is important to make sure the Stacker is in between the brackets before hanging it from the tabs provided on the Side Plates.

Removal of Dual Stacker

Front Load Cabinet

Disconnect the Main Validator Harness. Disconnect the Stacker Wiring Harness by depressing the tongue of the connector and gently pulling the connector apart. Remove the Validator and the Validator Support Bracket.

Rear Load Cabinet

Lift the Stacker slightly to allow the Stacker pins to clear the Validator Support Bracket. Bring the Stacker straight out of the cabinet until there is room to disconnect the wiring harness that runs from the Stacker to the Validator. Depress the tongue of the connector and gently pull the connector apart.

III. BILL REMOVAL

Font Load Cabinet

\$1 bills are removed from the lower section of the Stacker by depressing the Pressure Plate downward with one hand and removing the stack of bills with the other hand.

High denomination bills are removed from the upper section of the Stacker by moving the Validator out of the way, pushing the Upper Bill Plate upward with one hand and removing the stack of bills with the other hand.

Rear Load Cabinet

\$1 bills are removed from the lower section of the Stacker by removing the rear gate and depressing the Pressure Plate downward with one hand and removing the stack of bills with the other hand.

High denomination bills are removed from the upper section of the Stacker by removing the rear gate and pushing the Upper Bill Plate upward with one hand and removing the stack of bills with the other hand.
REPLACE THE REAR GATE AFTER REMOVING THE BILLS.



In either the front or rear load application, the Dual Stacker does not need to be removed from its mounted position to remove stacked bills.

IV. MAINTENANCE

Preventative Maintenance

(APPROX. EVERY 200,000 CYCLES)

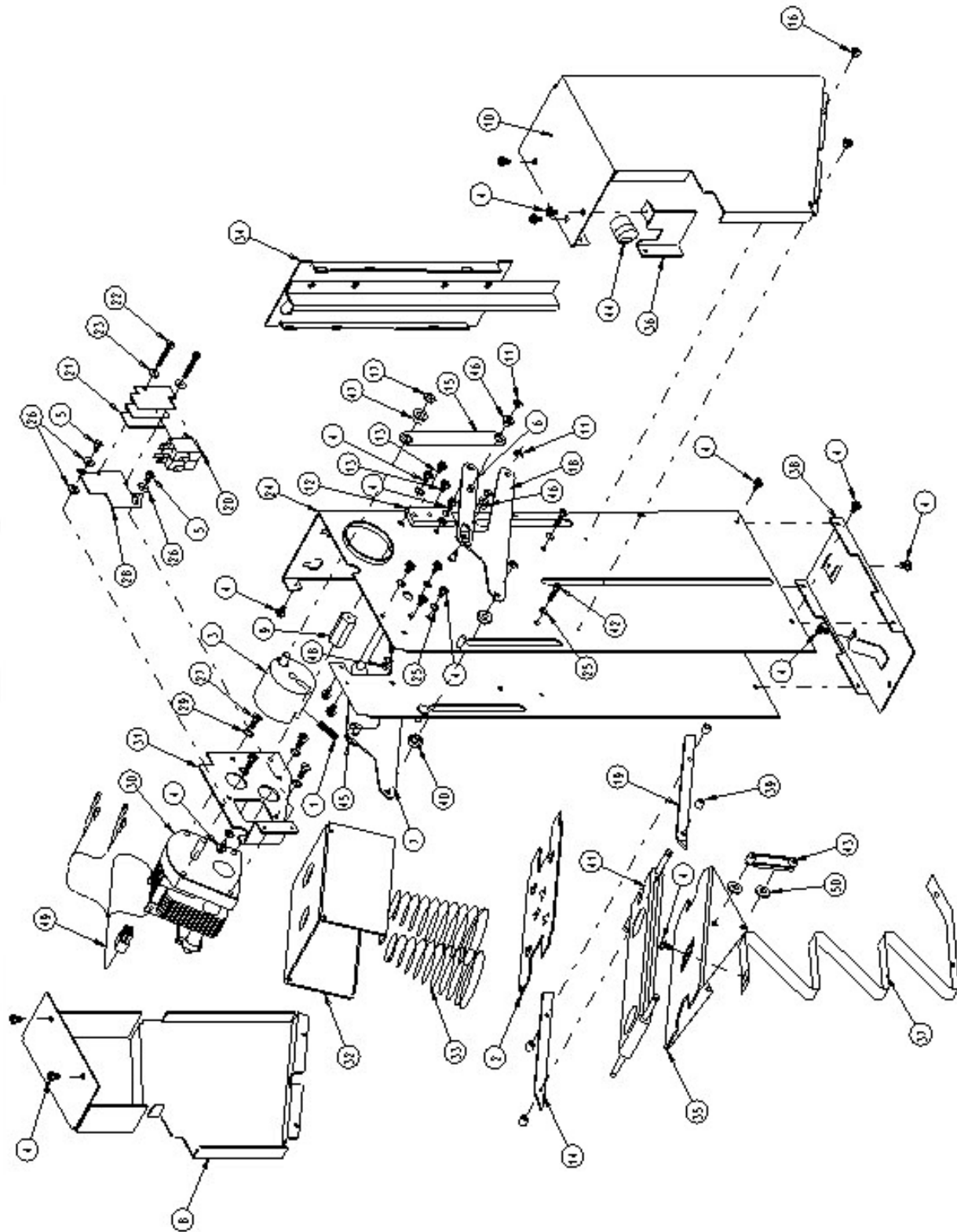
THE INDEX NUMBERS IN THIS SECTION REFER TO THE PARTS LAYOUT DIAGRAM ON PAGE 8.

- A. Use a small amount of Dry Slick™ on the pressure plate slide glides (#43 on both sides) that extend through the Stacker housing, and the edges of the slot that the guides ride in on the housing.

- B. Remove #8 and #10 dust covers by removing the four #16 screws and the five #4 screws. Remove #15 cam link by removing #17 E-Ring and the #11 E-Ring. Remove the three #4 screws from the #24 stacker housing that mounts the motor mounting bracket. Apply grease to stacker housing cam seat bore and the #3 cam.

V. PARTS

Parts Layout



Parts Index

INDEX #	PART #	QTY	DESCRIPTION
1	90-0661	1	SCREW, SET 10-24 x 3/8"
2	35-0048	1	UPPER BILL PLATE, NS
3	35-0002B	1	CAM ASSEMBLY
4	90-0604	22	SCREW, HEX WH 6-32 x 1/4"
5	90-0605	4	SCREW, PH 6-32 x 5/16"
6	35-0003	1	ARM ASSEMBLY, RIGHT HAND
7	35-0004C	1	ARM ASSEMBLY, RIGHT HAND PLATEN
8	35-0005	1	DUST COVER , LEFT
9	35-0006	1	SPACER, STEEL
10	35-0007	1	DUST COVER, RIGHT
11	90-0506	7	E-RING, 1/8"
12	35-0026	2	BEARING BLOCK
13	90-0134	4	6-32 x 1/2" PH SCREW
14	35-0009	1	RAIL, LEFT HAND
15	35-0010	1	CAM LINK
16	90-0130	4	SCREW, PH 6-32 x 1/8"
17	90-0504	1	E-RING, 1/4"
18	35-0012C	1	ARM ASSEMBLY, LEFT HAND PLATEN
19	35-0013	1	RAIL, RIGHT HAND
20	36-0071	2	SWITCH, STACKER
22	90-0223	2	SCREW, PH 4-40 x 7/8"
23	46-1076	2	WASHER, #4 BRASS
24	35-0014A	1	HOUSING ASSEMBLY
25	90-0400	5	WASHER, INTERNAL LOCK #6
26	90-0415	2	WASHER, #6 BRASS
27	90-0144	4	SCREW, 8-32 x 1/2"
28	35-0015	1	SWITCH PLATE
29	90-0611	4	WASHER , INTERNAL LOCK #8
30	35-0040	1	MOTOR, DUAL STACKER
31	35-0016	1	MOTOR BRACKET
32	35-0046	1	BILL COLLECTOR, NS
33	35-0047	2	SPRING, DUAL STACKER
34	35-0019	1	REAR GATE & BILL GUIDE ASSEMBLY
35	36-0007	1	PRESSURE PLATE
36	35-0042	1	BRACKET, STRAIN RELIEF
37	36-0074	1	SPRING, STACKER PRESSURE
38	35-0036	1	BOTTOM PLATE
39	35-0011	4	SPACER, RAIL
40	35-0020	4	SPACER, SLIDE
41	35-0021A	1	PLATEN BODY ASSEMBLY
42	90-0136	4	SCREW, PH 6-32 x 9/16"

Parts Index (Continued)

INDEX #	PART #	QTY	DESCRIPTION
43	36-0051	2	SLIDE
44	35-0041	1	BUSHING, STRAIN RELIEF
45	35-0035	1	LINK & PIVOT PIN ASSEMBLY, LEFT HAND
46	46-1018	3	BEARING
47	35-0037	1	BEARING
48	90-0310	3	HEX NUT 6-32 x 5/16"
49	35-0039	1	HARNESS, DUAL STACKER
50	90-0415	2	WASHER, # 6 BRASS
51	35-0045	2	CONICAL SPRING CLAMP
52	35-0049	1	SHIM
53	90-0428	4	SPACER WASHER
54	90-0134	4	6-32 X 1/2" PPH SCREW

LIMITED WARRANTY AGREEMENT OF HAMILTON MANUFACTURING CORP.

Hamilton Manufacturing Corp., an Ohio Corporation, (“Seller”) warrants to Purchaser that all new equipment shall be free from defects in material and factory workmanship for a period of one (1) year from the original shipping date. Hamilton Manufacturing Corp. further warrants if any part of said new equipment in Seller’s sole opinion, requires replacement or repair due to a defect in material or factory workmanship during said period, Seller will repair or replace said new equipment. Purchaser’s remedies and the liabilities and obligations of Seller herein shall be limited to repair or replacement of the equipment as Seller may choose, and Seller’s obligation to remedy such defects shall not exceed the Purchaser’s original cost for the equipment. Purchaser EXPRESSLY AGREES this is the EXCLUSIVE REMEDY under this warranty. There are no other express or implied warranties which extend beyond the face hereof. All warranty repair service must be performed by either a Factory Trained Service Representative or **HAMILTON MANUFACTURING CORP., 1026 Hamilton Drive, Holland, Ohio 43528 PHONE (419) 867-4858 or (800) 837-5561, FAX (419) 867-4867.**

The limited warranty for new equipment is conditioned upon the following:

1. The subject equipment has not, in the Seller’s sole opinion, been subjected to: accident, abuse, misuse, vandalism, civil disobedience, riots, acts of God, natural disaster, acts of war or terrorism.
2. The Seller shall not be liable for any expense incurred by Purchaser incidental to the repair or replacement of equipment and Purchaser shall assume full responsibility for any freight or shipping charges.
3. The coverage of this warranty shall not extend to expendable parts.
4. Purchaser shall have a warranty registration card on file with Seller prior to any claim in order for warranty protection to apply.
5. No warranty coverage is applicable to any equipment used for currency other than that specified at the time of the purchase.
6. Seller expressly disclaims any warranty that counterfeit currency will not activate said equipment.
7. Seller expressly disclaims any warranty for any losses due to bill manipulation or theft or loss of cash under any circumstances.
8. Use of the equipment for anything other than its intended and designed use will void the Limited Warranty Agreement. Use of equipment for anything other than its intended and designed use includes, but is not limited to, downloading software/applications not certified by Seller such as e-mail, spyware, screen savers, viruses, worms, third party software, web search engines, cookies, spam, desktop applications, games, web surfing, etc.

Seller further warrants all repair or service work performed by a factory trained representative or Hamilton Manufacturing Corp. for a period of ninety (90) days from the date the repair or service work was performed. Purchaser’s remedies and the liabilities and obligations of Seller herein shall be limited to repair or replacement of equipment as Seller may choose, and Seller’s obligation to remedy such defects shall not exceed the Purchaser’s depreciated value of the equipment. Purchaser EXPRESSLY AGREES this is an EXCLUSIVE REMEDY under this warranty. There are no other express or implied warranties on repair or service work performed by a factory trained representative or Hamilton Manufacturing Corp. which extend beyond the face hereof.

The limited warranty for repair and service work is conditioned upon the following:

1. The subject equipment has not, in the Seller's sole opinion, been subjected to: accident, abuse, misuse, vandalism, civil disobedience, riots, acts of God, natural disaster, acts of war or terrorism.
2. The Seller shall not be liable for any expense incurred by Purchaser incidental to the repair or replacement of equipment and Purchaser shall assume full responsibility for any freight or shipping charges.
3. The coverage of this warranty shall not extend to expendable parts.
4. Purchaser shall have a warranty registration card on file with Seller prior to any claim in order for warranty protection to apply.
5. No warranty coverage is applicable to any equipment used for currency other than that specified at the time of the purchase.
6. Seller expressly disclaims any warranty that counterfeit currency will not activate said equipment.
7. Seller expressly disclaims any warranty for any losses due to bill manipulation or theft or loss of cash under any circumstances.
8. No person or entity other than a factory trained representative or Hamilton Manufacturing Corp. has performed or attempted to perform the subject repair or service.
9. Using equipment which has been serviced or repaired for anything other than its intended or designed use such as downloading software applications not certified by Seller will void the Limited Warranty Agreement. This includes software/applications such as e-mail, spyware, screen savers, viruses, worms, third party software, web search engines, cookies, spam, desktop applications, games, web surfing, etc.

THIS AGREEMENT IS MADE WITH THE EXPRESS UNDERSTANDING THAT THERE ARE NO IMPLIED WARRANTIES THAT THE EQUIPMENT SHALL BE MERCHANTABLE, OR THAT THE GOODS SHALL BE FIT FOR ANY PARTICULAR PURPOSE. PURCHASER HEREBY ACKNOWLEDGES THAT IT IS NOT RELYING ON THE SELLER'S SKILL OR JUDGMENT TO SELECT OR FURNISH EQUIPMENT SUITABLE FOR ANY PARTICULAR PURPOSE AND THAT THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THAT WHICH IS DESCRIBED HEREIN.

The Purchaser agrees that in no event will the Seller be liable for direct, indirect, or consequential damages or for injury resulting from any defective or non-conforming new, repaired or serviced equipment, or for any loss, damage or expense of any kind, including loss of profits, business interruption, loss of business information or other pecuniary loss arising in connection with this Limited Warranty Agreement, or with the use of, or inability to use the subject equipment regardless of Sellers knowledge of the possibility of the same.

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