# Hamilton Manufacturing Corporation 1026 Hamilton Dr. Holland, OH 43528 • Phone: 419-867-4858/800-837-5561 • Fax: 419-867-4867 • www.hamiltonmfg.com

# **VN-1 SERVICE & PARTS MANUAL**

Document #101-0062 12/27/02

### **ABOUT THIS MANUAL**

This manual will provide the operator with important information about installing and maintaining the VN-1 Changer. General information is provided for the Hopper, Validator, Stacker, and the Controller. However, if additional information is needed for these components, please refer to the appropriate manual. To obtain assistance from the manufacturer, please call (800) 837-5561 or (419) 867-4858.

When calling for assistance, it is important to have serial numbers readily available. Please take the time to record this information in the spaces provided.

VN-1 SERIAL #	
HOPPER SERIAL #	
VALIDATOR SERIAL #	
STACKER SERIAL #	
CONTROLLER SERIAL #	
KEY / LOCK #	

Please complete the warranty card, which was included with your changer, and return it to the manufacturer.

# TABLE OF CONTENTS

I. INSTALLATION	4
MOUNTINGELECTRICAL	4 4
II. MAINTENANCE	5
HOPPERVALIDATOR / STACKERCONTROLLER	5
III. PARTS	6 - 7
IV. RETURNING ITEMS FOR SERVICE	8
ADDENDIY	
APPENDIX	
APPENDIX	

APPENDIX A - 1-H HARNESS......9

### I. INSTALLATION

#### **MOUNTING**

Cabinets are pre-drilled for wall mounting or mounting on an optional base. Bases are pre-drilled for securing to the floor. Do not use leveling screws when fastening to the floor. Changers mounted on bases should be securely fastened to both the floor and the wall. Fasteners to be used should be recommended by your engineer as to strength and suitability for floor and wall composition. Hamilton will not be responsible for injury due to improper installation.

For mounting in wall, cabinet size is 36-3/8" H x 9-15/16" W x 13-1/4" D.

#### **ELECTRICAL**

This currency changer is operated on 120VAC, 60Hz. This changer uses a 5 AMP circuit breaker. Unit may be hard-wired with conduit if desired.

A GROUND FAULT INTERUPTER IS REQUIRED. The recommended Ground Fault Interrupter should have the following specifications:

- 120VAC
- 15 AMP
- 6-10mA trip level
- Should not trip when power is removed from circuit.

Attached to the main harness is a 1-pin white molex connected to a white wire. There should be a bright yellow tag attached to this wire with the following warning:

**WARNING:** For security reasons, this plug should remain disconnected until such time as you need to utilize the hopper's manual run switch.

There is no need to connect this plug for normal operation. If for some reason you wish to utilize the manual run switch, be sure to unplug the molex afterward.

#### II. MAINTENANCE

**CAUTION!** Do not use oil, grease, or solvents on any part of this changer except as clearly specified in this manual, the Hopper Manual, the Validator Manual, or the Stacker Manual.

#### **HOPPER**

Any lubrication in the Hopper can result in a faulty payout. To clean the Hopper monthly, empty coins and vacuum. Use a soft brush to loosen dirt. Refer to the Hopper Manual for details on maintenance.

#### **VALIDATOR**

Refer to the Validator Manual for lubrication instructions and all other information. THE VALIDATOR SHOULD BE SERVICED ANUALLY TO MAINTAIN MAXIMUM PERFORMANCE. THIS WORK SHOULD ONLY BE DONE BY A TRAINED TECHNICIAN.

#### **STACKER**

Refer to the Stacker Manual for maintenance instructions.

#### CONTROLLER

The microprocessor based Hamilton C2000 Controller monitors the systems of the VN-1 Bill Changer. If a problem is detected, the Controller will shut down and display the appropriate error code. (Refer to the C2000 Operation Manual for error codes.)

The twelve DIP switches located near the computer-reset button determine the payback of coins on multi-Hopper change units. There is no need to change the switch settings on a typical model VN-1 Changer, as they are set to the payout arranged at the time of order. However, if the need arises, the C2000 Operation Manual does offer alternative switch settings. If none of these settings are suitable to your needs, contact Hamilton Mfg. for assistance. YOU MUST HAVE THE CONTROLLER MODEL NUMBER READY WHEN CALLING.

# III. PARTS

VN-1 PARTS LIST		
PART #	DESCRIPTION	QTY
11-0033	HOPPER PIVOT BRACKET	1
11-0100	HOPPER ASSEMBLY, QUARTER	1
35-0100	DUAL STACKER	1
	OR	
36-0036	SINGLE STACKER	1
46-0170	HV-X VALIDATOR	1
47-0029	CONNECTOR, CONDUIT 3/8"	1
47-0077	TERMINAL, CHANGER GROUND	4
47-0080	OUT OF SERVICE LAMP	1
47-0080A	SPEED NUT, TINNERMAN	1
47-0216	LINE CORD, EXT.	1
47-0232	CLAMP, CABLE PANDUIT	5
47-0275	CABLE TIE 6"	6
48-0033A	STACKER BYPASS PLUG	1
48-0050	POWER BOX HARNESS	1
48-0091	OUT OF SERVICE HARNESS	1
48-1005	MAIN HARNESS, 1H	1
49-1022A	POWER BOX, 5 AMP	1
49-2000A	C2000 CONTROLLER, COMPLETE	1
	OR	
49-2004A	AUDITPRO CONTROLLER, COMPLETE	1
60-0107	STACKER MOUNTING BRACKET	1
60-0115	VALIDATOR BRACKET	1
60-0116	VALIDATOR SUPPORT BRACKET	1
	OR	
60-0118	DUAL STACKER VALIDATOR BRACKET	1
60-0048	COIN CUP, ROUNDED H.D.	1
61-0505A	CABINET COMPLETE, VN-1	1
61-0556	DOOR & HINGE, CN-1	1
63-0410A	FACE PANEL ASSEMBLY, VN-1	1
63-5051A	LOCK ASSEMBLY COMPLETE, VN-1	1
90-0143	SCREW, #8-32 X 5/16"	1
90-0146	SCREW, #8-32 X 3/16"	3
90-0252	MOUNTING STUD CONTROLLER, SHORT	1
90-0301	NUT, #10-24 X 3/8"	4
90-0326	LOCK NUT, #10-24 NYLON	4
90-0327	WING NUT, #10-24	2

VN-1 PARTS LIST		
PART #	DESCRIPTION	QTY
90-0331	HEX NUT, 1/4-20"	4
90-0333	SCREW, 1/4-20 X 1/2"	4
90-0403	INTERNAL LOCK WASHER 1/4"	4
90-0428	WASHER, SPACER	2
90-0611	INTERNAL LOCK WASHER #8	3
90-0612	INTERNAL LOCK WASHER #10	4

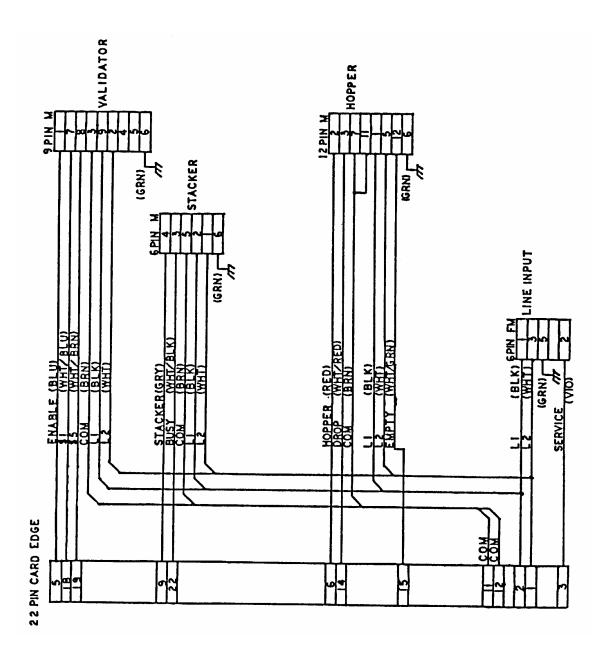
### IV. RETURNING ITEMS FOR SERVICE

If any part or component must be shipped to the distributor or the manufacturer for replacement or repair, the following procedure is used:

- CALL BEFORE SHIPPING. BE READY WITH THE MACHINE SERIAL NUMBER AND THE COMPONENT SERIAL NUMBER. YOU WILL RECEIVE A RETURN AUTHORIZATION NUMBER (RA NUMBER). WRITE THE RA NUMBER ON THE OUTSIDE OF THE BOX YOU ARE USING TO RETURN THE COMPONENT, AS WELL AS ON AN ENCLOSED NOTE.
- When shipping components, first place in a plastic bag before putting in a box and surrounding with good packing material.
- Ship via UNITED PARCEL SERVICE (UPS) if at all possible.
- If shipped by U.S. POSTAL SERVICE (PARCEL POST), send by SPECIAL HANDLING.
- Adequately insure shipments; if uncertain about the value, call the distributor or the manufacturer for information.
- Include a note in shipment describing the nature of the problem, along with a full return address. WE CANNOT RETURN SHIPMENTS TO POST OFFICE BOXES.
   Be sure to include the RA Number.
- Please include your NAME and a TELEPHONE NUMBER where you can be reached.

## **APPENDIX A**

# **1-H HARNESS** PART # 48-1005



# 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.
- 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.
- 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.

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.

(see next page for additional provisions)

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.
- 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.

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.

### **Hamilton Manufacturing Corporation**

1026 Hamilton Drive Holland, OH 43528

**Sales Phone:** (888) 723-4858 **Sales Fax:** (419) 867-4850

Customer Service Phone: (800) 837-5561 Customer Service Fax: (419) 867-4857 Advanced Systems Phone: (866) 296-3365 Advanced Systems Fax: (419) 867-4857

Website: http://www.hamiltonmfg.com

**Email Addresses:** 

service@hamiltonmfg.com sales@hamiltonmfg.com parts@hamiltonmfg.com info@hamiltonmfg.com