DIGI®
When Accuracy Counts

DMC-1000

Automatic Bill Counter

Operation Manual



RICE LAKE WEIGHING SYSTEMS
Industrial Solutions on a Global Scale®

ISO 9001 REGISTERED

74638

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Basic Instructions for all Types of Machines

GENERAL

The DMC-1000 Automatic Bill Counter is a compact and medium weight bill counting machine. It has been developed to save labor, reduce man-made mistakes and to count bank notes in bulk. The machine is controlled by a microcomputer that has many features. As a good assistant the machine may be widely used in all kinds of banks, post offices and in large and middle scale enterprises. We currently offer two models of the DMC-1000, the basic model and the DMC-1000UV that recognizes counterfeit bank notes by both UV fluorescent and magnetic detection.

The manual is divided into two parts in order to provide complete, clear instructions on how to operate the machine.

PART ONE: basic instructions for both models of the DMC-1000

PART TWO: instructions for cleaning the DMC-1000 and how to handle problems that may arise during its operation.

Before starting, please read this manual thoroughly. Please pay special attention to PART ONE in order to familiarize yourself with all the functions and operations of the machine.

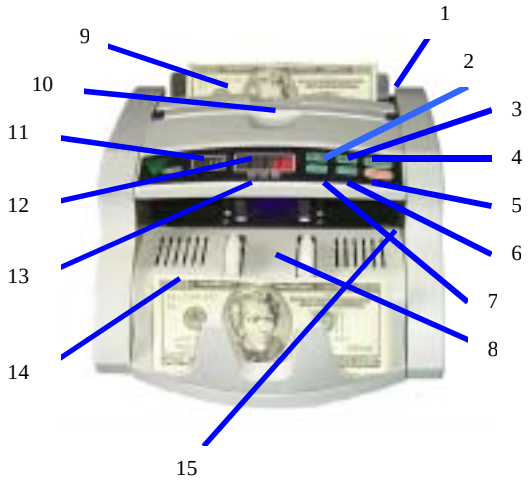
WARNING:

Before turning the power on, please make sure that there are no objects obstructing the free running of the rollers and wheels. When operating model DMC-1000UV please wait five minutes after turning it on to allow the UV system to reach its maximum detection capability.

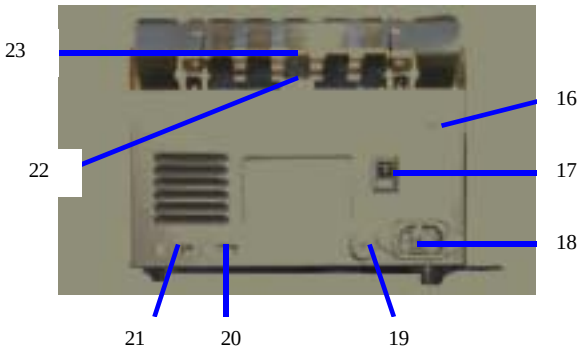
Basic Instructions for all Types of Machines

1.0 Controls

1. Auxiliary Hopper Plate
2. Batch Plus Switch (to add)
3. Batch Minus Switch (to subtract)
4. Clear Switch for Main Display
5. Manual Restart Switch
6. Mode Switch for Function Selection
7. Batch Switch (10, 20, 25, 50, 100)
8. Optical Sensor
9. Hopper
10. Retractable Handle
11. Preset Number Display (Batch Display)
12. Counting Number Display (Counter)
13. Function Indicators (ADD, detect, count)
14. Stacker
15. Metal Frame-Platform



16. Fastening Screw
17. Power Switch
18. Power Outlet
19. Fuse
20. Magnetic Detector Switch
21. Ultraviolet Sensitivity Switch
22. Up and Down Adjustment Screw
23. Rubber Tongue



2.0 Specifications

1.	Ambient Temperature:	0 - 40° C
2.	Ambient Humidity:	25 – 80%
3.	Feed System:	Roller Friction System
4.	Hopper Capacity:	100 old bills 200 new bills
5.	Stacker Capacity:	100 old bills 200 new bills
6.	Size of Countable Bills:	50 x 100mm – 100 x 185mm
7.	Thickness of Countable Bills:	0.06 – 0.12 mm
8.	Counting Number Display:	Four large red LED digits
9.	Batch Preset Number Display:	Three small green LED digits
10.	Power Source:	Single-Phase 110 v ± 10% RMS, 50-60 Hz
11.	Power Consumption:	< 40 watts
12.	Dimensions:	226mm x 223mm x 155mm
13.	Weight:	approx. 6.5 Kg
14.	Counting Speed:	1000 bills/minute

3.0 Features

3.1 Counting Mode

Counts all bills placed in the hopper.

3.2 Detect Mode (DMC-1000UV Only)

Counts all bills and will detect counterfeit bills using fluorescent and/or magnetic detection.

3.3 ADD Mode

Counts all bills placed in the hopper and will add to the total all consecutive operations.

3.4 Preset Batching Function

Will count out bills per batch up to the numbers preset with the “Batch” and “Minus” or “Plus” switches.

3.5 Automatic Start

The machine is started by placing the bills in the hopper.

3.6 Repeat Function

In the preset mode, taking out the batched bills from the stacker restarts the machine.

4.0 Operations

4.1 Power Up

Connect the power cord to a power source and turn the POWER switch ON. The unit will self-check after running the wheels for several turns. The counting number display will show "0" when the unit is ready for operation.

4.2 Mode Selection

Select the function you want to use: "ADD", "DETECT" or "COUNT".

4.3 "Counting" Function

Once you have placed the bills correctly in the hopper, the optical sensor in the hopper plate will make the machine start counting automatically. When placing the bills in the hopper, form a wedge with the wad of bills. The bill in front facing the operator will be the first to go in

The machine continues to count until the hopper is empty or until it has reached the preset batching number. The counted number is displayed on the counter. You can clear the number displayed on the counter by removing the notes from the stacker and putting the next bills in the hopper. The next counting operation will begin again with "0" on the counter.

Loading the hopper with additional bills without removing the previous notes stacked on the stacker will start the next counting operation automatically. The newly counted number will be added to the previous one.

4.4 "Detection" Function (DMC-1000UV Only)

Set the ultraviolet sensitivity switch at the low level before turning the power on. The ultraviolet detection function will work best after it has been on for at least three minutes.

Select the "Detection" function by pressing the "MODE" switch. Having placed the bills correctly in the hopper, the machine will start automatically and will detect any suspected bill. The ultraviolet function is able to check all types of bank notes. If the detection function is not working properly, adjust the ultraviolet sensitivity switch to the next highest level.

The magnetic detection function is selected by turning on the Magnetic Switch located at the lower back of the unit and by pressing the "MODE" button on the front panel until the "DETECT" indicator lamp is lit.

The machine will stop automatically if it detects a counterfeit note and will give a beeping sound lasting 3 seconds. This is to give the operator enough time to remove

the suspected bill which will be the last one on the stacker. The number shown on the display will include the suspected bill.

4.5 Double Detection Functions (DMC-1000UV Only)

The DMC-1000UV incorporates the ultraviolet fluorescent system explained above (see 4.4) with the magnetic reaction system. Activate the Magnetic Switch on the lower back of the unit for double-checking of the bank notes. Suspected bank notes identified will be on the top in the stacker.

4.6 "ADD" Function

Adding calculations can be performed by pressing the "MODE" switch until the "ADD" indicator lamp is on. In this mode removing the counted bills from the stacker will not clear the number counted on the counter display and the number counted of the next bills will be added to the preceding one. To clear the counted number, press the "Clear" switch.

If the machine stops during the counting process and displays an error message, remove the bill causing the error as well as taking out any bills on the stacker and any inside the feeding rolls, if any. The machine will restart counting with "0" displayed on the counter once you press the "RESTART" button.

4.7 "Batch" Function

The present function will be selected automatically by setting a number between 1 and 999 on the Batch Display. This number is set by using the "Plus", "Minus" or "Batch" switches.

Each time the "Batch" switch is pressed, one of the possible batch amounts (10, 20, 25, 50, 100, blank) will be indicated on the green batch display.

When you load the hopper with bills the machine will start counting and will stop when the counted number reaches the preset number programmed in Batch Counting.

To repeat the batch counting with the same preset number, you can start the counting operation over automatically by removing the counted bills from the last batch from the stacker.

If the counted number of bills does not tally with the preset batch number, the batch counter will show the difference between the two numbers.

Keeping the + Plus switch depressed for more than 0.5 seconds will cause the set number to increase by one every 0.25 seconds.

Instructions for Cleaning of the Machines and Troubleshooting Operational Problems

5.0 Cleaning of the Machine

WARNING: BEFORE DOING ANY CLEANING, TURN THE POWER SWITCH OFF AND DISCONNECT THE POWER CORD FROM THE MACHINE.

5.1 Cleaning of Optical Sensors

It is very important to clean all the sensors of the machine daily with a soft brush to avoid any paper particles or dust sticking to the light transmitter or receiver sensors. The glass surfaces of the detectors may also be wiped with a soft cloth soaked with alcohol if necessary.

5.2 Cleaning the Inside of the Machine Periodically

It is necessary to clean the inside of the machine once a month. Unplug the machine and open the rear cover, cleaning the inside with a soft brush.

CAUTION: Take care not to change the positions of the detectors.

6.0 Troubleshooting Operational Problems

6.1 Avoiding Problems

Preselect the bills you are putting in the machine. Do not use the machine on bills with metal clips, broken bills, bills with plastic transparent tape or bills washed in water and bleach.

6.2 Jamming

To avoid jamming, make sure you put the wedge-shaped wad of bills correctly into the hopper. The bill facing you (in front) will go in first in the counting operation.

The plastic cover of the stacker (#14) goes under the metal frame (see #15), never on top. If the plastic cover gets on top of the metal frame it will cause the machine to jam.

If jamming occurs, first turn off the machine. Then carefully remove any bills inside the system with a wood or rubber stick. Look for any foreign material such as paper clips and remove them , if any. Check the position of the plastic stacker cover (#14) under metal frame (#15). Check adjustment screw on the back. Turning it counter-

clockwise will reduce roller friction. Please make sure that you are positioning the bills correctly on the hopper and try your counting operation again.

6.3 When Counting Numbers Are Wrong

Turn the up and down adjustment screw clockwise to increase the friction.
Change the position of the bank note black rubber to the other side (the original may be worn out).
Adjust the feed bank note tongue position until the counting numbers are correct again.

6.4 Location of the Unit

The DMC-1000 should never be placed under very intense lighting because it can affect the sensitivity of the optical sensors. The machine should not be used in a dusty or dirty room.

6.5 Error-Message Display

Message	**Error**	**Solution**
E-1	the left counting sensor is dirty or damaged	clean the sensor or change it
E-2	the right counting sensor is dirty or damaged	clean the sensor or change it
E-4	the fluorescent sensor or the ultraviolet lamp is damaged	change the sensor or the lamp
E-5	the Auxiliary Hopper Plate or the Friction Roller System is dirty	clean the whole system
E-6	the preset sensor is full of dust or damaged	clean the sensor or replace it.

As you can see, 80% of all the operational problems will be caused by dust and dirt inside the machine.
Please keep it clean to avoid malfunctions.

DMC-1000 Limited Warranty

Rice Lake Weighing Systems (RLWS) warrants that all RLWS equipment and systems properly installed by a Distributor or Original Equipment Manufacturer (OEM) will operate per written specifications as confirmed by the Distributor/OEM and accepted by RLWS. All systems and components are warranted against defects in materials and workmanship for one year.

RLWS warrants that the equipment sold hereunder will conform to the current written specifications authorized by RLWS. RLWS warrants the equipment against faulty workmanship and defective materials. If any equipment fails to conform to these warranties, RLWS will, at its option, repair or replace such goods returned within the warranty period subject to the following conditions:

- Upon discovery by Buyer of such nonconformity, RLWS will be given prompt written notice with a detailed explanation of the alleged deficiencies.
- Individual electronic components returned to RLWS for warranty purposes must be packaged to prevent electrostatic discharge (ESD) damage in shipment. Packaging requirements are listed in a publication, "Protecting Your Components From Static Damage in Shipment," available from RLWS Equipment Return Department.
- Examination of such equipment by RLWS confirms that the nonconformity actually exists, and was not caused by accident, misuse, neglect, alteration, improper installation, improper repair or improper testing; RLWS shall be the sole judge of all alleged non-conformities.
- Such equipment has not been modified, altered, or changed by any person other than RLWS or its duly authorized repair agents.
- RLWS will have a reasonable time to repair or replace the defective equipment. Buyer is responsible for shipping charges both ways.
- In no event will RLWS be responsible for travel time or on-location repairs, including assembly or disassembly of equipment, nor will RLWS be liable for the cost of any repairs made by others.

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SHOULD THE SELLER BE OTHER THAN RLWS, THE BUYER AGREES TO LOOK ONLY TO THE SELLER FOR WARRANTY CLAIMS.

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