DeLaRue

user guide

MACH 3

Coin Sorter and Counter

dtp

COIN & CURRENCY
CASH HANDLING SOLUTIONS

DE LA RUE
CASH SYSTEMS INC.

Box 200
705 S. 12th Street
Watertown, WI 53094 USA

Tel: (920) 262- 3300 (Sales)
(800) 527- 2638 (Supplies)
Fax: (920) 261- 1783 (Sales)
(920) 262- 3374 (Supplies)

Web: http://www.delarue.com

Dear Customer,

Thank you for purchasing the Mach 3 Coin Sorter / Counter from De La Rue.
This product is yet another step to fulfilling our mission:

To enable the secure and cost effective availability of cash when and where people need it.

This innovative product incorporates the very latest technology for you to process coins faster and more accurately than ever before. It contains De La Rue designed and patented components which make this product unique.

Additional benefits of the Mach 3 are:

- Compact Size
- Lightweight
- 1500 Coins / Minute
- Easy- To- Read Display
- Two Levels of Totals
- Tabletop or Portable
- Adjustable Bagging Pedestal
- RS232 Interface
- Lockout Security
- Battery Backup
- Accurate Bagstops
- Coin Tubing
- Exact Bagstopping

With over 100 years' experience in the design, development and manufacture of world class |coin processors, De La Rue supplies more products world-wide than any other manufacturer. Quality is paramount in our manufacturing process and we are proud to hold certificates for European quality directives for both safety and electromagnetic standards. In addition to this, manufacturing sites have been awarded ISO9001 quality certificates.

To ensure maximum life from your Sorter, we recommend that it is regularly serviced. To assist you, we provide worldwide service and support through our network of branch offices and authorized distributors. Please contact them for the location of your nearest service office.

We wish you many years of carefree Mach 3 use.

De La Rue
Cash Systems Inc.

De La Rue
Cash Systems Inc.
a division of
De La Rue International Ltd.
Registered Office
Box 200
705 S. 12th Street
Watertown, WI 53094 USA

FCC Interference Statement

Warning

This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual may cause interference to radio and television reception. It has been tested and found to comply with the limits for a Class A or Class B computing device pursuant to Subpart J of Part 15 of FCC Rules which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference with radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by taking one or more of the following measures:

- Reorient the receiving (radio/TV) antenna
- Move the sorter to the right or left with respect to the receiver
- Move the sorter away from the receiver
- Plug the sorter into a different outlet so that the sorter and receiver are on different branch circuits.

  Warning: Only equipment certified to comply with the Class A or Class B limits may be attached to this currency counter. Operation with noncertified equipment is likely to cause radio and TV reception interference.

Peripherals should be interfaced using only shielded cables to maintain FCC Class A or Class B certification and to reduce the possibility of interference with radio and television reception.

Reference material

If this equipment does cause reception interference, the user should contact an authorized sales or service representative for suggestions. Two booklets, the CIB Interference Handbook and the CIB Telephone Interference Booklet are provided by the Compliance and Information Bureau of the Federal Communications Commission. To obtain copies, call the Bureau at (202) 418-1100 or on the Internet at http://www.fcc.gov/cib.

De La Rue International Limited is pleased to give detailed specifications of its products in this manual but expressly reserves the right to vary these at its discretion at any time without notice. As the Company's products and services are continuously being developed it is important for customers to check that the information herein includes the latest particulars. This manual is for general guidance only and may contain inappropriate information under particular conditions of use. All recommendations and suggestions issued by or on behalf of the Company in whatever form, are subject to the Company's terms and conditions of sale, of which a copy will be supplied on request. This document is not part of a contract or license, save insofar as may be expressly agreed.

Model 6300
Coin Sorter / Counter

⚠CAUTION

SAFE OPERATION OF THIS PRODUCT IS DEPENDENT UPON PROPER INSTALLATION WITH COMPATIBLE EQUIPMENT AND BY AN AUTHORIZED SALES OR SERVICE REPRESENTATIVE. INCOMPLETE OR INCORRECT INSTALLATION MAY RESULT IN DAMAGE TO THE EQUIPMENT OR PERSONAL INJURY. ACCIDENTS AND COUNTING INACCURACIES CAN BE AVOIDED IF THE OPERATOR IS COMPLETELY FAMILIAR WITH THIS PRODUCT AND ITS OPERATION. ONLY COINS / TOKENS WITHIN THE RANGES DESCRIBED IN THE SPECIFICATIONS SECTION OF THIS GUIDE SHOULD BE PROCESSED. ANY / ALL OTHER OBJECTS SHOULD BE REMOVED FROM THE COIN MIX BEFORE PROCESSING. NEVER ALLOW TOOLS, FINGERS, HAIR OR LOOSE CLOTHING NEAR MOVING PARTS. NO ATTEMPT SHOULD BE MADE TO DISASSEMBLE THIS PRODUCT. IF SERVICE IS REQUIRED, CONTACT YOUR AUTHORIZED SERVICE REPRESENTATIVE.

THIS IS NOT A SELF–SERVICE PRODUCT.

OPERATION OF THIS PRODUCT SHOULD BE PERFORMED ONLY BY PROPERLY TRAINED PERSONS.

DELARUE ACCEPTS NO LIABILITY FOR ANY LOSS OR DAMAGE ARISING OUT OF THE UNAUTHORIZED USE, MODIFICATION OR ADJUSTMENT OF THE PRODUCT OR RELATED EQUIPMENT DESCRIBED OR REFERRED TO IN THIS DOCUMENT.

DE LA RUE
CASH SYSTEMS INC.

BOX 200
705 SOUTH 12TH STREET
WATERTOWN, WISCONSIN 53094
USA

#0000650
REV 04

Printed in USA

CE

Declaration of conformity

Manufacturer & responsible person

DE LA RUE
CASH SYSTEMS INC.
Box 200
705 S. 12th Street
Watertown, WI 53094 USA
Telephone: (920) 262 - 3300
Fax: (920) 261 - 1783

Details of product

Coin Sorter / Counter

Model types

6300000 – 6399999 (230V)

This product conforms to the essential requirements of:

Directive 89 / 336 / EEC Electromagnetic compatibility

Directive 73 / 23 / EEC Low voltage electrical equipment (safety)

and conformity has been demonstrated by meeting the applicable requirements of the following standards:

EN 60950	**Safety of Information Technology Equipment Including Electrical Business Equipment**
EN 50081-1:1992	**Electromagnetic Compatibility – Generic Emission Standard – Part 1 Residential, Commercial and Light Industry**
EN 50082-1:1997	**Electromagnetic Compatibility – Generic Immunity Standard – Part 1 Residential, Commercial and Light Industry**
EN 55022	**Limits & Methods of Measurement of Radio Interference of Information Technology Equipment**
EN 61000-3-2	**Power Line Harmonics Requirements**
EN 61000-3-3	**Power Line Flicker Requirements**
EN 61000-4-2	**Electrostatic Discharge Procedures**
EN 61000-4-3	**Radiated Electromagnetic Field Procedures**
EN 61000-4-4	**Electrical Fast Transient/Burst Procedures**
EN 61000-4-5	**Surge Immunity Test Procedures**
EN 61000-4-6	**Conducted RF Immunity Test Procedures**
EN 61000-4-11	**Voltage Dips and Interruptions Test Procedures**

This Declaration of Conformity applies to units manufactured on or after 1 July, 2001.

As of 1 July, 2001, this Declaration of Conformity is true and effective.

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overview

INTRODUCTION

The Mach 3 Coin Sorter and Counter is designed for ease of operation. Coins are sorted and counted at a rate of up to 1,500 coins per minute (depending on the coin mix). The denomination and quantity totals are registered within the Control Module, and are shown on the Display on the front of the Module.

1. Inspection Pan
   Allows inspection of coin mix and removal of unwanted metallic objects before coins enter the Sorting Area.

2. Power Switch
   Turns Main Power to Sorter on and off. Allows entry into programming mode when BATCH Key on Control is held down at power–up.

3. Control Assembly
   Communications link between the Sorter and the operator. All Sorter operation is controlled here.

4. Display
   Visual communications link between the Sorter and the Operator.

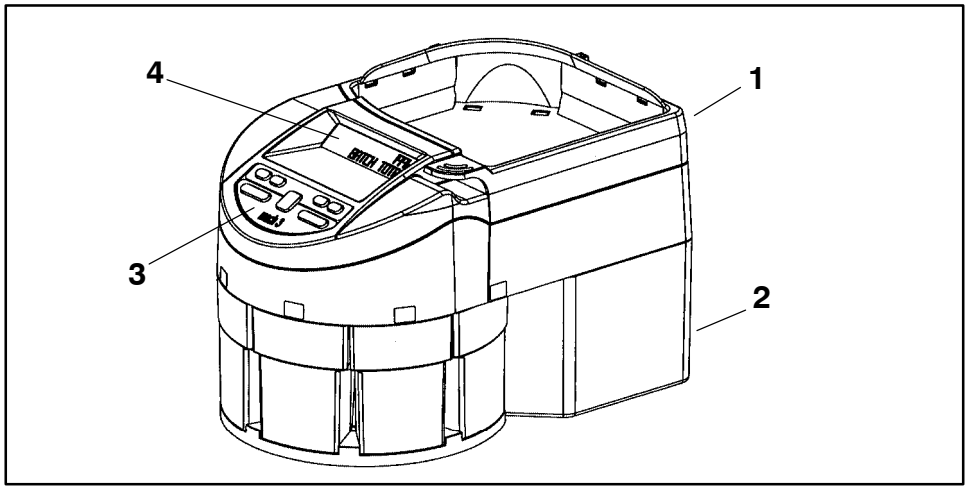


FIGURE #1
SORTER DESCRIPTION

model identification

MODEL	COUNTRY	# STATIONS	RS232
6300002	USA	6	NO
6300022	USA	6	YES
6300033	USA	6	YES
6300042	CANADA ($2)	6	NO
6300052	CANADA ($2)	6	YES
6300075	HOUSTON TRANSIT	6	NO
6300112	AUSTRALIA	6	NO
6300113	AUSTRALIA	6	YES
6300114	BOTSWANA	6	NO
6300115	BOTSWANA	6	YES
6300116	SLOVAKIA	6	NO
6300117	SLOVAKIA	6	YES
6300119	MAURITIUS	6	YES
6300122	INDONESIA	4	NO
6300123	INDONESIA	4	YES
6300124	HONDURAS	5	NO
6300143	UK (GAMING)	6	YES
6300180	ETHIOPIA	5	NO
6300181	ETHIOPIA	5	YES
6300185	SPAIN	6	NO
6300186	SPAIN	6	YES
6300189	ISRAEL	6	YES
6300190	ISRAEL	4	NO
6300191	ISRAEL	4	YES
6300192	GUYANA	3	NO
6300193	GUYANA	3	YES
6300201	BELGIUM	5	NO
6300202	BELGIUM	5	YES
6300206	GERMANY	6	NO
6300208	GERMANY	6	YES
6300209	IRELAND	6	NO
6300210	IRELAND	6	YES
6300211	NICARAGUA	6	NO
6300212	NICARAGUA	6	YES
6300213	SWEDEN	5	NO
6300214	SWEDEN	5	YES
6300220	GREECE	5	NO
6300221	GREECE	5	YES
6300224	ESTONIA	6	NO
6300225	ESTONIA	6	YES
6300260	THAILAND	6	NO
6300261	THAILAND	6	YES

model identification

6300301	FRANCE	6	NO
6300302	FRANCE	6	YES
6300310	TRINIDAD	5	NO
6300311	TRINIDAD	5	YES
6300320	CZECH REPUBLIC	6	NO
6300321	CZECH REPUBLIC	6	YES
6300332	LITHUANIA	6	NO
6300333	LITHUANIA	6	YES
6300334	GERMANY	5	NO
6300335	GERMANY	5	YES
6300336	GERMANY	6	NO
6300337	GERMANY	6	YES
6300340	SLOVAKIA	5	NO
6300341	SLOVAKIA	5	YES
6300407	MEXICO	6	NO
6300408	MEXICO	6	YES
6300451	SINGAPORE	6	NO
6300452	SINGAPORE	6	YES
6300460	PARAGUAY	5	NO
6300461	PARAGUAY	5	YES
6300509	UK	6	NO
6300510	UK	6	YES
6300512	GUATEMALA	4	NO
6300513	GUATEMALA	4	YES
6300514	GUATEMALA	6	NO
6300516	SAUDI ARABIA	5	NO
6300517	SAUDI ARABIA	5	YES
6300518	NEW ZEALAND	6	NO
6300519	NEW ZEALAND	6	YES
6300523	PORTUGAL	6	NO
6300524	PORTUGAL	6	YES
6300535	BRAZIL	6	NO
6300536	BRAZIL	6	YES
6300540	COLOMBIA	5	NO
6300541	COLOMBIA	5	YES
6300547	POLAND	6	NO
6300548	POLAND	6	YES
6300556	ARGENTINA	6	NO
6300557	ARGENTINA	6	YES
6300558	DENMARK	6	NO
6300559	DENMARK	6	YES
6300602	NETHERLANDS	6	NO
6300603	NETHERLANDS	6	YES

model identification

6300608	TURKEY	5	NO
6300609	TURKEY	5	YES
6300614	HAITI	5	NO
6300615	HAITI	5	YES
6300620	PHILIPPINES	5	NO
6300621	PHILIPPINES	5	YES
6300630	BRAZIL	6	NO
6300631	BRAZIL	6	YES
6300634	FRANCE (TOKEN)	6	NO
6300635	FRANCE (TOKEN)	6	YES
6300640	DOMINICAN REPUBLIC	6	NO
6300641	DOMINICAN REPUBLIC	6	YES
6300650	NORWAY	6	NO
6300651	NORWAY	6	YES
6300552	MALAYSIA	6	NO
6300553	MALAYSIA	6	YES
6300660	ITALY	6	NO
6300661	ITALY	6	YES
6300665	UAE	5	NO
6300666	UAE	5	YES
6300668	MALAWI	6	NO
6300669	MALAWI	6	YES
6300680	CYPRUS	6	NO
6300681	CYPRUS	6	YES
6300684	EL SALVADOR	6	NO
6300685	EL SALVADOR	6	YES
6300688	ALGERIA	6	NO
6300689	ALGERIA	6	YES
6300691	MOZAMBIQUE	6	NO
6300692	MOZAMBIQUE	6	YES
6300701	GHANA	5	NO
6300702	GHANA	5	YES
6300751	WEST AFRICAN STATES	6	NO
6300752	WEST AFRICAN STATES	6	YES
6300801	EURO (FIN/FRA/GER/GRE/IRE/ITA/POR/SPA)	6	NO
6300802	EURO (FIN/FRA/GER/GRE/IRE/ITA/POR/SPA)	6	YES
6300803	EURO (BEL/AUS/LUX/NETH)	6	NO
6300804	EURO (BEL/AUS/LUX/NETH)	6	YES
6300840	MALTA	6	NO
6300841	MALTA	6	YES
6300850	ITALY	6	NO
6300851	ITALY	6	YES
6300902	USA – .984” TOKEN	6	NO
6300922	USA – .984” TOKEN	6	YES
6300950	ITALY	6	NO
6300951	ITALY	6	YES

specifications

Size; Height 9.250" (23.5 cm)
Width 9.125" (22.9 cm)
Depth 15.375" (39.0 cm)
Weight 16.750 lbs (7.6 kg)
18.250 lbs (8.3 kg) *

* Model 6300033 only

Note: Weight is approximate and does not include Coin Drawers / Bag Attachments.

Sorting Speed Up to 1500 coins per Minute (depending on coin mix)

Operating Temperature Range
+40 to +120 Degrees Fahrenheit
+5 to +50 Degrees Centigrade

Voltage 90–264 VAC 50 / 60 Cycle

Coin Diameter Capability (Typical)
.590" (15mm) to 1.28" (32.4mm)

Sorting Differential = .5mm (.020") minimum)

Inspection Pan Capacity
Approximately 1000 coins
(.705" / 18mm diameter)

Coin Drawer Capacity
Approximately 500 coins
(.705" / 18mm diameter)

⚠CAUTION

THIS EQUIPMENT MUST BE GROUNDED FOR PROPER OPERATION. USE OF EXTENSION CORDS OR 3–2 ADAPTERS IS NOT RECOMMENDED. IF A 3–2 ADAPTER IS USED, THE GROUNDING WIRE OR TANG MUST BE CONNECTED TO THE BUILDING GROUND. FOR OPTIMUM SAFETY, THE POWER CORD SHOULD BE DISCONNECTED FROM THE POWER SOURCE BEFORE CLEANING OR SERVICING. THE SOCKET OR OUTLET SHOULD BE INSTALLED NEAR THE EQUIPMENT AND BE EASILY ACCESSIBLE.

options

There are thirteen (13) options available. Each option is packaged separately, complete with installation instructions (when necessary).

A. COIN DRAWERS –– Receive sorted coins.

B. BAG ATTACHMENT ––
For bagging large coin quantities. Replaces Coin Drawer. Must be used with item “C”, below.

C. BAGGING PEDESTAL–– Elevates Sorter to proper height for bagging (three (3) pieces).

D. INSPECTION PAN MAGNET –– Prevents unwanted metallic objects from entering the Sorting Area.

E. SOFT–SIDED CARRYING BAG / COVER ––
Covers and secures Coin Drawers while unit is being transported, or may be used as a dust cover.

F. RS232 INTERFACE –– Provides communications capability with other equipment. Two ports available

Note: The Control must recognize that a Printer or Remote Batch Display (items G–H) is connected. The procedure is discussed in the Programming Section later in this Guide.

G. PRINTER –– Provides a permanent record (audit trail) of all transactions.

H. REMOTE BATCH DISPLAY –– Allows persons other than operator to observe total as coins are sorted / counted.

I. COIN SORTER DATA CONVERSION MANAGEMENT
DISKETTE –– Contains a software program to convert the data from the Sorter to an ASCII text file which can be retrieved by standard spreadsheet software.

J. INTERFACE MODULES –– Two types available.

K. CASH TILL SORTING KIT (US / CANADA ONLY) –– Directs coin output for filling Cash Drawer tills.

L. MEGA–DRAWERS –– Similar to “A” above, but have larger capacity.

M. COIN TUBE ADAPTER (Model 6300033) ––
Used to hold Coin Tubes while tubing.
.01, .05, .10, .25 tubes available.

IMPORTANT:

MODEL 6300033 ONLY.

WHEN USING THE TUBING FEATURE (SEE ITEM M IN THE CHART TO THE RIGHT) AND IT IS NECESSARY TO KEEP TRACK OF THE PARTIAL COUNTS, THERE ARE SPECIFIC STEPS THAT MUST BE FOLLOWED TO MOVE BETWEEN TUBING / DRAWER / HALF–BAG / AND FULL BAG QUANTITIES.

THESE STEPS ARE EXPLAINED IN THE PARTIAL COUNT SECTION LATER IN THIS GUIDE.

installation

UNPACK (See Figure #2)

The internal packaging is designed not only for protection during shipment but to allow an easy means of removal from the shipping container.

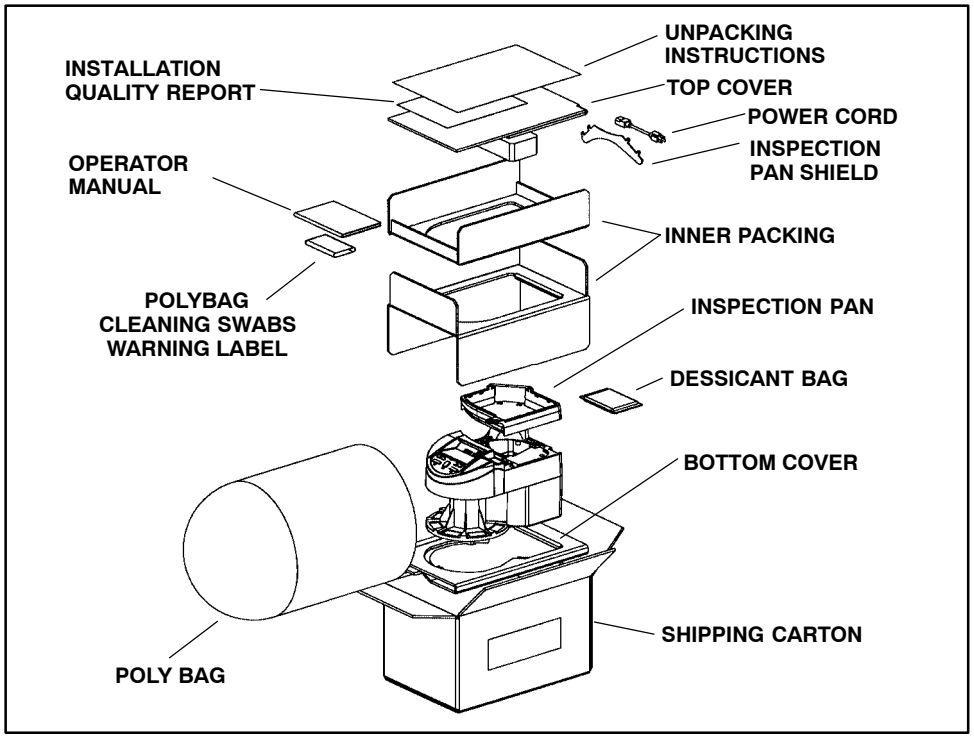


FIGURE #2
PACKAGING

⚠CAUTION

THE SORTER WEIGHS 16.75 POUNDS (7.6 KG) OR 18.25 POUNDS (8.3 KG) FOR MODEL 6300033. USE PROPER LIFTING TECHNIQUES WHEN REMOVING THE SORTER FROM THE SHIPPING CARTON.

installation

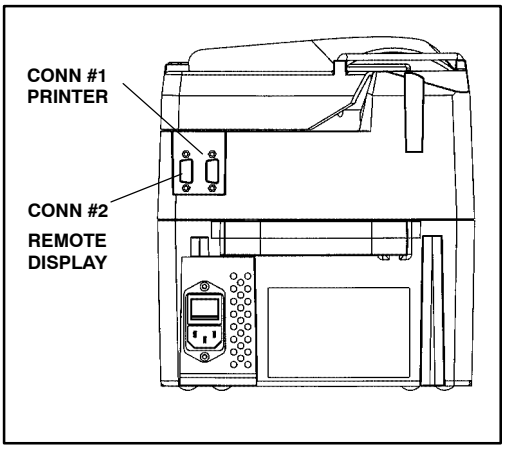


FIGURE #3
OPTION CABLE CONNECTION PORTS

CHECK FOR SHIPPING DAMAGE

The Sorter and all options were thoroughly tested after they were manufactured and carefully packaged when they left the factory.

ANY DAMAGE THAT MAY HAVE BEEN DONE IN SHIPMENT SHOULD BE REPORTED TO THE CARRIER IMMEDIATELY. THE SHIPPING CARTON(S) AND PACKAGING SHOULD BE RETAINED FOR THE CARRIER'S INSPECTION, IF NECESSARY.

CHECK FOR MISSING PARTS

Compare the items received against the original order. Notify your Sales Representative of any discrepancies.

INSTALL THE OPTION(S) (IF ORDERED)

Install each option in accordance with the Installation Instructions provided with each kit. Cable connections are shown in Figure #3.

Note: The Control must recognize that a Printer or a Remote Batch Display is connected. The procedure is discussed in the Programming Section later in this guide.

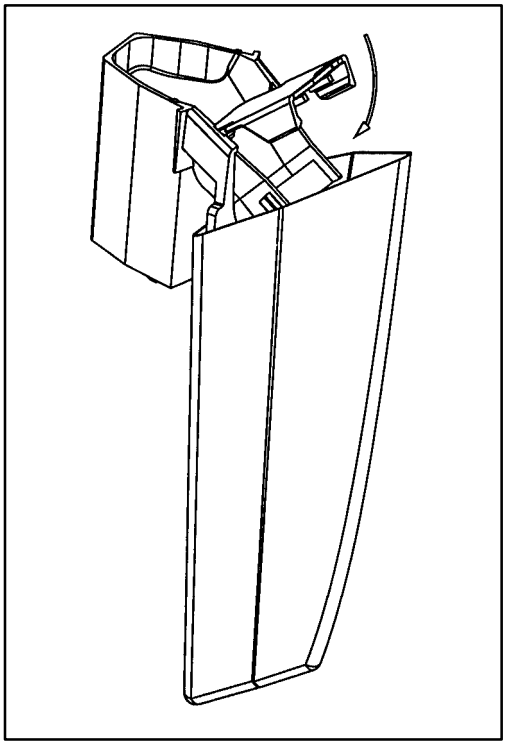


FIGURE #4
COIN BAG INSTALLATION

INSTALL COIN DRAWERS / BAGGING ATTACHMENTS

Unpack the Standard Coin Drawers, Mega Drawers, or Bagging Attachments and slide them into position.

Note: The "footprint" of the Sorter allows any of the Drawers / Bag Attachments to be located in any station.

Note: To properly install the Bag Attachment, push in at the bottom until the attachment "snaps" into position. To remove, push down slightly on the base just below the bagging attachment to release the lock.

To install a Coin Bag, lift the Clamp and position the Bag around the Spout, being sure that the rear of the Bag is around the Flange and the front is in position to be secured by the Clamp, as shown in Figure #4. Push the Clamp down over the Bag to secure it in position.

COIN DRAWER RECOMMENDED CAPACITIES	
STANDARD DRAWER	MEGA DRAWER
10¢ – 500 Units $50.00	10¢ – 1000 Units $100.00
1¢ – 400 Units $4.00	1¢ – 700 Units $7.00
5¢ – 250 Units $12.50	5¢ – 440 Units $22.00
25¢ – 180 Units $45.00	25¢ – 320 Units $80.00
1.00 – 140 Units $140.00	1.00 – 200 Units $200.00
50¢ – 100 Units $50.00	50¢ – 140 Units $70.00

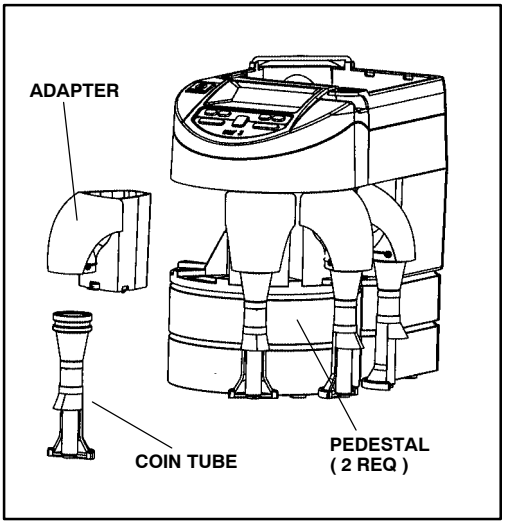


FIGURE #5
COIN TUBE INSTALLATION

INSTALL COIN TUBE ADAPTER / COIN TUBE

Unpack the Coin Tube and Bagging Pedestal Kits.

Place the Sorter on two of the pedestals in the kit (the third pedestal is not required but may be used if desired).

Insert the Adapter into the Sorter at the desired location until it snaps into place.

Push the Coin Tube into the Adapter until it locks into place.

Insert a paper coin tube of the appropriate denomination into the plastic coin tube.

The Sorter is now ready for tubing.

Refer to the tubing instructions discussed later in this Guide for proper operation.

STANDARD COIN TUBE QUANTITIES (U.S. QUANTITIES SHOWN)	
DENOMINATION	**QUANTITY**
1 CENT	50
5 CENT	40
10 CENT	50
25 CENT	40

IMPORTANT:

MODEL 6300033 ONLY.

WHEN USING THE TUBING FEATURE AND IT IS NECESSARY TO KEEP TRACK OF THE PARTIAL COUNTS, THERE ARE SPECIFIC STEPS THAT MUST BE FOLLOWED TO MOVE BETWEEN TUBING / DRAWER / HALF–BAG / FULL BAG QUANTITIES.

THESE STEPS ARE EXPLAINED IN THE PARTIAL COUNT SECTION LATER IN THIS GUIDE.

power cord / switch

Check the Power Cord supplied to ensure compatibility with local requirements. If a different plug connection is required, obtain the correct Power Cord assembly locally.

Be sure the Power Switch is in the “OFF” position. Connect the Sorter end of the Power Cord as shown in Figure #5, and the opposite end to a grounded AC outlet of the appropriate voltage.

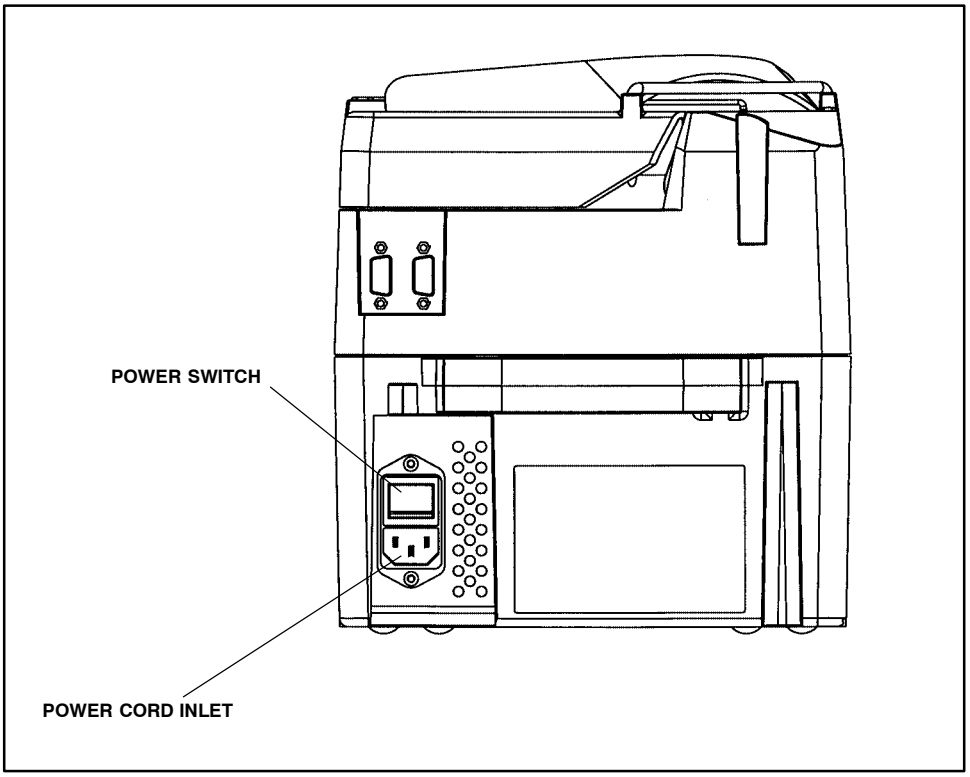


FIGURE #6
POWER CORD / SWITCH

sorting stations

The Mach 3 has six (6) Sorting Stations. They are numbered as shown in FIGURE #7. In some applications, not every Sorting Station would be used.

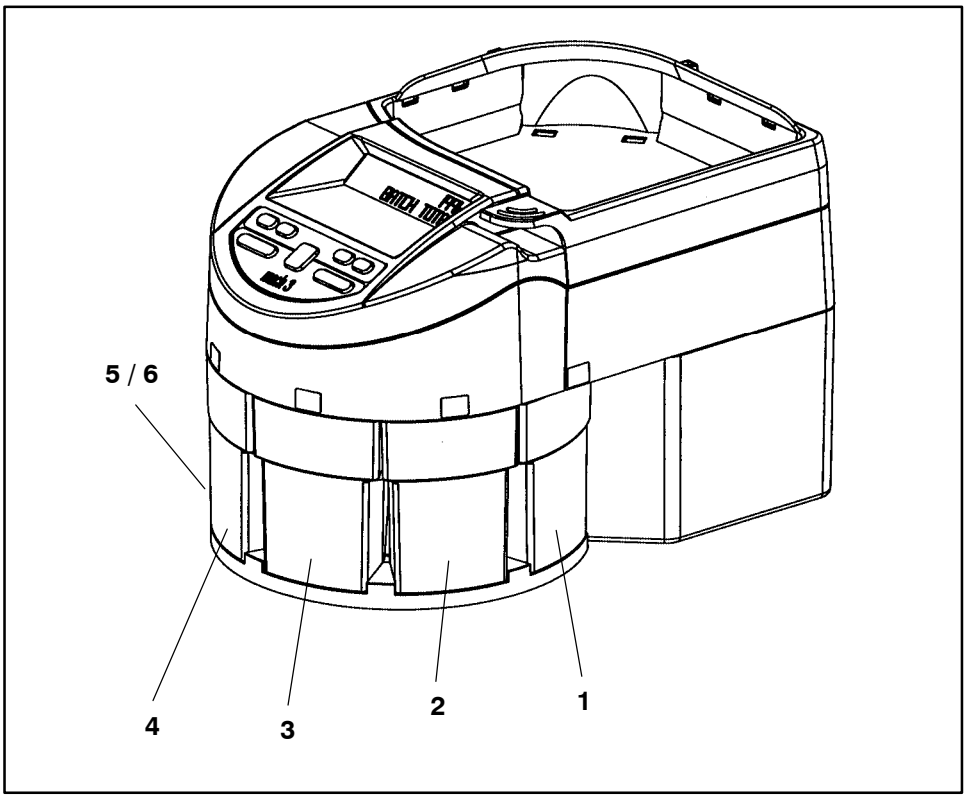


FIGURE #7
SORTING STATIONS
(STANDARD COIN DRAWERS SHOWN)

function keys

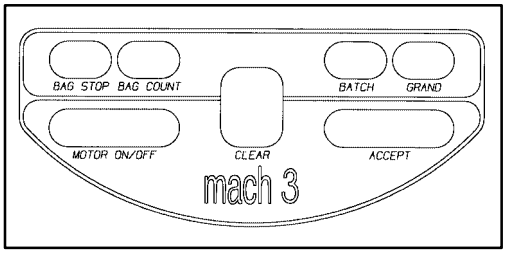


FIGURE #8
CONTROL

Note: When the ACCEPT Key is pressed, a message may appear on the Display to alert the operator to an error condition. Refer to operator messages (this section) for a listing and explanation.

MOTOR ON / OFF Alternate function key that controls the Sorting Motor. Toggles between ON and OFF.

BATCH Displays the current Batch Total until the ACCEPT Key is pressed. Repeated key depressions will display the Batch Total for each denomination. Holding BATCH Key down at power–up allows entry into programming mode.

GRAND Displays the current Grand Total (total of all Batch Accepts) until the ACCEPT Key is pressed.. Repeated key depressions will display the Grand Total for each denomination.

ACCEPT Accepts the Batch Total into the Grand Total (it is cleared out of the Batch level). If it is a Grand Accept, the total is not automatically cleared (see CLEAR Key). If the system is configured for a printer, the output is sent to the Printer at that time. If a Serial Port is configured for data output, it will be sent to that Port.

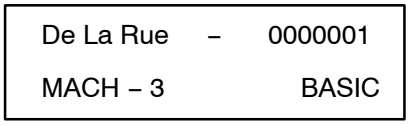
CLEAR Clears the value shown on the Display (in either Batch or Grand Total mode) before a Batch Accept. The exception to this rule is the “GRAND – CLEAR – ACCEPT” sequence, then the GRAND is cleared after the Accept sequence. See “Clearing Totals” (this section) for additional information.

BAG COUNT Displays the total and individual count in each Coin Drawer or Bag since the last Bagstop.

BAGSTOP Displays current bagstop setting per denomination. For Model 6300033, also indicates if Counter is in tubing, bagging, or one of the other two bagstop choices.

the display

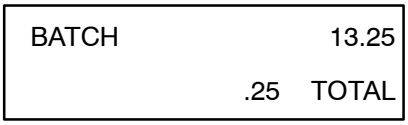
When the Sorter is turned on, the Display will read:

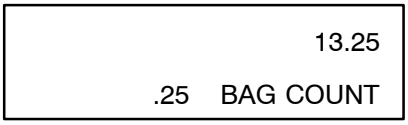


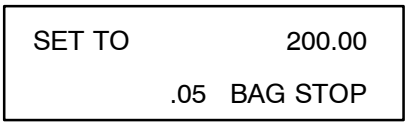
Note: 1. If the Sorter has the RS232 option, a plus (+) sign will appear after the word “BASIC”.
2. The number in the upper right corner (0000001) reflects the current software revision. It is provided as an aid in servicing, and has no effect on Sorter operation.

and then revert to:

the display







1. Display Batch Total

   Cycle the BATCH Key until the Display shows the following:

2. Display Grand Total

   Cycle the GRAND Key until the Display shows the following:

3. Display Batch or Grand Individual Coin Totals

   Cycle the BATCH or GRAND Key to display the appropriate coin. Example: A Batch Total of 13.25 for a .25 value coin.

4. Display Individual Bag Count

   Cycle the BAG COUNT Key to select the appropriate coin (.25 Bag Count shown in Unit Mode). The Display can be shown in units or value. Refer to the programming section later in this guide for additional information.

5A. Display Bagstop (Model 6300033)

   When first pressed, the Display will show the last selection made, either tubing or bagging.

5B. Display Bagstop (Standard)

   Cycle the BAGSTOP Key to locate the appropriate coin. The bagstop setting can be displayed in unit or dollar value. Refer to the programming section later in this guide for additional information.

   Note: If a bagstop is set for 50 or less in the tubing mode, and any other bagstop setting or “bagging mode” (bagstop #4) is selected, the partial counts will be reset. If the bagstop is greater than 50, the partial count totals will be saved if any other mode is selected.

accepting totals

Note: Each time a Batch or Grand Total is accepted, an audit trail will print if the Printer option is utilized.

1. BATCH ACCEPT

   With the Display in the BATCH TOTAL mode, press the ACCEPT Key once. The BATCH TOTAL is cleared, and the Control remains in the BATCH mode. The BATCH TOTAL amount is added to the GRAND TOTAL.

2. GRAND ACCEPT (All Grand Totals remain)

   With the Display in the GRAND TOTAL mode, press the ACCEPT Key once. The GRAND TOTAL remains on the Display. To clear the Display, refer to “Clearing Quantities and / or Totals” on the following pages. The GRAND TOTAL can be accepted only if the BATCH TOTAL is zero.

   Note: The Printer must be allowed to finish the print cycle before attempting to accept a coin total or an operator message will appear. Refer to operator messages (this section) for additional information.

   Note: If a Batch or Grand Total is accepted and the Printer is off–line (sel light “off”), the tape will not advance far enough for proper tear–off. Turn the Printer power switch off, wait a few seconds, then on again. Press the “sel” key on the Printer and continue operation.

clearing totals

⚠ CAUTION

THE CLEAR FUNCTION IS USED TO REMOVE INFORMATION FROM MEMORY.

ALWAYS DOUBLE–CHECK YOUR NEED TO CLEAR.

QUANTITIES CANNOT BE RECALLED!

1. Clear Batch Total

   a. Press the BATCH Key (displays Batch Total).

   b. Press the CLEAR Key once (the Display MUST be allowed to flash for two seconds).

   c. Press the CLEAR Key again. All Batch Totals are reset to zero. The Display returns to “BATCH TOTAL – 00”.

   Note: If a Batch Total is cleared rather than accepted, the amount is not transferred to the grand total.

2A. Clear Grand Total (without Audit Trail Printout)

   a. Press the GRAND Key (displays grand total).

   b. Press the CLEAR Key once (the Display MUST be allowed to flash for two seconds).

   c. Press the CLEAR Key again. All Grand totals are reset to zero. The Display returns to “GRAND TOTAL – 00”.

   d. Press the BATCH Key to resume operation.

clearing totals

2B. Clear Grand Total
(with Audit Trail Printout)

a. Press the GRAND Key (displays grand total).

b. Press the CLEAR Key once (the Display MUST be allowed to flash for two seconds). The Display must read "GRAND TOTAL".

c. Press the ACCEPT Key. All Grand totals are reset to zero. The Display returns to "BATCH TOTAL – 00", and all Grand Totals are printed on the Audit Trail (printer tape).

2C. Clear Individual Coin Totals In Grand

a. Cycle the GRAND Key to the coin desired.

b. Press the CLEAR Key once (the Display MUST be allowed to flash for two seconds).

c. Press the CLEAR Key again (the individual Coin Total clears – reset to zero). The Display returns to "GRAND TOTAL – 00".

3. Clear All Bag Counts

a. Cycle the BAG COUNT Key until the Display shows the following:

b. Press the CLEAR Key once (the Display MUST be allowed to flash for two seconds).

c. Press the CLEAR Key again. All partial bag counts are reset to zero. Batch or Grand Totals are not affected.

clearing totals

4. Clear Individual Coin Totals In Bag Count

   a. Cycle the BAG COUNT to the coin desired.

   b. Press the CLEAR Key once (the Display MUST be allowed to flash for two seconds).

   c. Press the CLEAR Key again. The individual bag count for that coin is reset to zero.

   d. Cycle the Bag Count Key to the next Coin Total to be cleared.or
   Press the BATCH KEY to resume operation.

processing coin

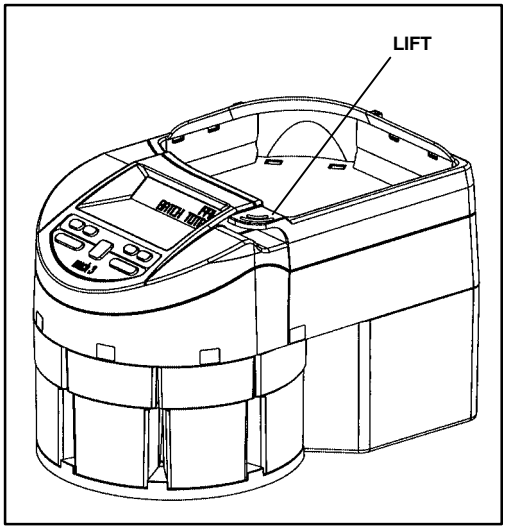


FIGURE #9
INSPECTION PAN

⚠CAUTION

REMOVE ANY DAMAGED COIN OR FOREIGN OBJECTS. FAILURE TO DO SO MAY DAMAGE THE ELASTIC DRIVE DISC, WHICH MAY NOT BE COVERED UNDER WARRANTY OR M/A CONTRACT.

THE (OPTIONAL) MAGNET WILL CATCH METAL ITEMS SUCH AS METALLIC COIN SLUGS, WASHERS, PAPER CLIPS, ETC., THAT SHOULD NOT ENTER THE SORTER.

1. With the Sorter in the Batch Total mode, place the coins for the first batch in the Inspection Pan and remove any unwanted objects.
2. Press the MOTOR ON / OFF Key on the Control to start the Sorting Motor.
3. Lift the Inspection Pan to transfer the coins into the Sorting Area.
4. When the sorting is complete, press the MOTOR ON / OFF Key on the Control to stop the Sorting Motor. (The Sorting Motor will stop automatically approximately seven (7) seconds after the last coin has been processed if Sorter is left unattended.)
5. The total batch amount for the coins sorted will appear on the Display. Press the ACCEPT Key on the Control to transfer the Batch Total to the Grand Total. An audit trail (printout) will print the Batch information if a Printer is properly connected.

   Note: If the batch total does not print properly, or does not space (advance) the tape properly after printing, the printer may not be properly initialized. Refer to the programming section later in this guide for additional information.
6. Repeat Steps #1 through #5 for the second and all subsequent batches.
7. When all Batch Totals have been processed, press the GRAND–ACCEPT Keys to display the Grand Total of all coins processed.

bagstops

OVER	01
.25	BAGSTOP

The Sorter will stop when any of the coin denominations being sorted reaches a predetermined bagstop amount.

The Display will indicate which denomination has reached a bagstop, and the number of coins (if any) over the bagstop quantity.

1. Empty the Coin Drawer or exchange the Coin Bag. **Place the number of excess coins (if any) in the new drawer or bag.**
2. Press the MOTOR ON / OFF Key to start the sorting operation.

   Note: If more than one denomination has reached its bagstop, the Display will advance to that coin, and show its denomination. Repeat steps #1 and #2 to clear and advance to the next denomination (station).

When there are no more stations at bagstop, the Display will return to show the Batch Total.

Note: If the bagstop quantity selection is to be changed, press the CLEAR Key, then change the selection as shown on the following pages.

Press the MOTOR ON / OFF Key to resume operation.

bagstop selection

There are 3 (4 for Model 6300033) preprogrammed bagstop settings per denomination available.

These Bagstop quantities may be set (reset) at any time the Sorter is at rest (no counting / sorting). If quantities are changed during coin processing, it is important that the number of coins currently in the Coin Bag must be less than the new Bagstop quantity. Check (and clear if necessary) the Bag Count quantity of the selected coin before selecting the new Bagstop setting, then proceed as follows:

1. Cycle the BAG STOP Key to the desired denomination. The Bagstop quantity currently selected will be displayed.
2. Cycle the BAG COUNT Key to view each of the 3 (4 for Model 6300033) preprogrammed bagstops for that denomination, stopping at the desired bagstop quantity.
3. Press the ACCEPT Key to enter the new bagstop quantity into memory.
4. Press the BATCH Key to set the Control for operation.

   Note: Be careful not to change the setting(s) to a lower value or count than the current bag value or count.

bagstop quantities

Bagstop quantities are operator selectable for each denomination. Each coin value (unit count if non–valued coin) and selectable bagstop amounts are programmed at the time of manufacture. Totals and memory are retained by a service–replaceable, non–rechargeable lithium battery in the event of a power loss.

The Control permanent memory contains a coin value and pre-selected bagstop settings per Sorting Station, as shown in the Figures below.

Station No. (U.S. Coin Values)	VALUE	Quantity "A" STOP #1	Quantity "B" STOP #2	Quantity "C" STOP #3 (DEFAULT)
Station #1	.10	500	10,000	5,000
Station #2	.01	400	5,000	2,500
Station #3	.05	250	4,000	2,000
Station #4	.25	180	4,000	2,000
Station #5	1.00	140	1,000	500
Station #6	.50	100	2,000	1000

FIGURE #10
PREPROGRAMMED BAGSTOP QUANTITIES
(STANDARD CONFIGURATION)

Station No. (U.S. Coin Values)	VALUE	Quantity "A" STOP #1 (TUBING)	Quantity "B" STOP #2	Quantity "C" STOP #3	Quantity "D" STOP #4 (DEFAULT)
Station #1	.10	50	500	5,000	10,000
Station #2	.01	50	400	2,500	5,000
Station #3	.05	40	250	2,000	4,000
Station #4	.25	40	180	2,000	4,000
Station #5	1.00	25	140	500	1,000
Station #6	.50	20	100	1,000	2,000

FIGURE #11
PREPROGRAMMED BAGSTOP QUANTITIES
(MODEL 6300033 ONLY)

These coin values and bagstop amounts may be altered for your specific application. Refer to the programming section later in this guide for this procedure. The new coin values will be held in memory which is retained by the battery during power outages.

bagstop quantities

The following Figures may be filled–in to show the values specifically programmed for your application. This will aid in proper selection of bagstop quantities and will be helpful in the event re–programming becomes necessary.

Station No. (U.S. Coin Values)	VALUE	Quantity "A" STOP #1	Quantity "B" STOP #2	Quantity "C" STOP #3 (DEFAULT)
Station #1				
Station #2				
Station #3				
Station #4				
Station #5				
Station #6				

FIGURE #12
REPROGRAMMED BAGSTOP QUANTITIES
(STANDARD CONFIGURATION)

Station No. (U.S. Coin Values)	VALUE	Quantity "A" STOP #1	Quantity "B" STOP #2	Quantity "C" STOP #3	Quantity "D" STOP #4 (DEFAULT)
Station #1					
Station #2					
Station #3					
Station #4					
Station #5					
Station #6					

FIGURE #13
REPROGRAMMED BAGSTOP QUANTITIES
(MODEL 6300033 ONLY)

Note: When using coin drawers, the bagstop settings should be set to small quantities so as not to overfill the coin drawer.

partial counts

INTRODUCTION

This feature allows the Sorter to monitor partial bag counts in the Bag Count memory. The number of coins, or the dollar value is entered into the Bag Count memory and the counting will continue from that point to the pre–programmed bagstop quantity.

> **Note:** All programmed and counted values are retained if the Sorter remains under power. The battery backup feature retains the Control memory in the event of a power interruption or loss.

STANDARD OPERATION

If you are using the Model 6300033 for non-tubing operation, the following procedures apply.

Do not use the “TUBING” or “BAGGING” mode to change between the first and fourth bagstop choices for all denominations since you will reset the partial counts in the “TUBING” mode.

To change from any bag stop, cycle the BAGSTOP Key to the preferred coin, then cycle the BAG COUNT Key to the preferred bagstop choice and press the ACCEPT Key.

The partial counts will be retained for any bagstop choice. Be sure, when changing bagstops, that the partial count is less than the new bagstop choice.

MODEL 6300033 OPERATION

TUBING

If you are using the Model 6300033 for tubing you can switch between “TUBING” and “BAGGING” modes by pressing the ACCEPT Key when you first press the BAGSTOP Key.

Switching to the tubing mode will save any partial counts you have accumulated in the bagging mode. When you switch to tubing, the partial count for the tubing mode will be zero unless you have changed the tubing bagstop to greater than fifty coins.

partial counts

The tubing mode bagstops are the first of the four bagstop choices for each coin. The “BAGGING” mode bagstops are the fourth of the four bagstop choices for each denomination. If you wish to switch between “TUBING” and half bag or drawer quantities, you must change the fourth bagstop choice to the bagstop value you wish for the “BAGGING” mode.

While in the “TUBING” mode, if you complete tubing for one of the denominations, you can manually cycle that denomination to the fourth bagstop choice (bagging) while the remaining denominations continue to tube.

To clear any partial count in “TUBING” mode, cycle to “BAGGING” mode and then cycle back to “TUBING”.

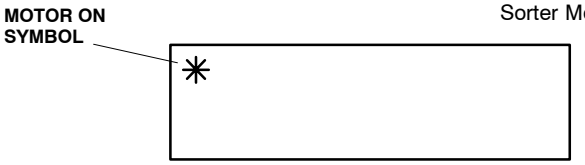
To add any partial counts left in Coin Tubes after tubing to the bagging partial counts do the following:

1. Set denomination to bagging mode (full, half or drawer)
2. Pour coins from tube into Sorter
3. Run coins
4. Clear BATCH total (do not accept)

display messages

INTRODUCTION

This feature allows the Control to alert the operator to the Sorter's current condition. A MOTOR ON Symbol (located in the upper left corner of the Display), will appear while the Sorter Motor is running.



The Sorter Motor will turn off automatically 7 seconds after the last coin is counted.

POWER–UP CLEAR

Hold the "CLEAR" KEY on the Control down and switch the Power Switch to "ON". All sorter functions (bag count, batch count, grand count, etc.) will be reset to their defaults.

⚠CAUTION

ALL BATCH, AND GRAND TOTALS, AS WELL AS THE BAG COUNT TOTALS WILL BE RESET TO ZERO WHEN A POWER–UP CLEAR IS PERFORMED.

There are 8 messages that may be displayed:

RAM / ROM ERROR

–CALL SERVICE

1. RAM / ROM ERROR
   A problem has occurred in the electronics of the Sorter. Stop operation. Press the CLEAR Key to clear the Display. If the problem persists, contact your Authorized Service Representative.

display messages

USE CORRECT KEY SEQUENCE

	CLEAN
.25	SENSOR

CLEAR BATCH TOTAL

NO ACCEPT WHILE COUNTING

PRINTER BUSY – PLEASE WAIT

2. USE CORRECT KEY SEQUENCE
   Keys where not pressed in an acceptable sequence. The Display will show this message for 3 seconds then revert to batch mode.

3. CLEAN SENSOR
   A Coin Sensor has become too dirty to function properly. The Clean Sensor indicator will appear on the Display and the Sorter will stop. Disconnect the Sorter from power, locate and clean the dirty Sensor, then reconnect the Sorter to power. If the Sensor cleaning was successful, the Display will return to show the current Batch Total. If the Clean Sensor remains on the Display, contact your Authorized Service Representative for assistance.

   Note: When the Clean Sensor Error has been corrected, the coin quantity for that station should be re–run to verify its accuracy.

   Note: Proper cleaning procedures are discussed in Chapter #10 of this guide.

4. CLEAR BATCH TOTAL
   This message will be displayed if the Grand Totals cannot be accepted or cleared because the Batch Total has not yet been accepted or cleared. Accept or Clear the BATCH total before accepting or clearing the GRAND total.

5. NO ACCEPT WHILE COUNTING
   Totals cannot be accepted while coins are still being sorted / counted. Wait for sorting to stop before accepting total.

6. PRINTER BUSY
   Totals cannot be accepted while printer is operating. Wait for printing to stop before accepting total.

display messages

CLEAR GRAND,

WILL ROLL OVER

7. CLEAR GRAND, WILL ROLL OVER
   The GRAND total has come within 10,000 of the maximum total that can be displayed. Complete the present batch, accept the Batch total, then accept and clear the Grand Total. If the GRAND total is not cleared, it will soon “roll over” (appear to reset to zero) and no longer show valid totals.

CHECK PORT 1

COMMUNICATIONS

8. CHECK PORT 1 (2), COMMUNICATIONS

   An error has occurred at the port shown on the Display. Check all physical connections between Sorter and Peripherals. If all connections are proper, check the port parameters and resume operation. If the problem persists, contact your Authorized Service Representative for assistance.

default settings

INTRODUCTION

The Sorter is set when manufactured to the following default parameters. Each of the parameters will be changed at production to fit your specific application if the information is available, or may be changed at installation. To enter the Programming Mode, hold the BATCH Key down while turning on the Power Switch.

DEFAULT SETTINGS

Note: The battery backup will retain the settings as programmed in the event of a power interruption or loss.

1. PRINTER PORT ACTIVE (Port #1)
   Default setting is is “NO”.
2. REMOTE BATCH DISP ACTIVE (Port #2)
   Default setting is is “NO”.
3. PC CASH (MODEL 4810 / VIA) ENABLED
   Default setting is is “NO”.
4. SALEM (CSS) ACTIVE
   Default setting is is “NO”.
5. ALL KEYS ACTIVE
   Default setting is “YES”.
6. BAGSTOP SETTINGS
   Programmed at manufacture per country / application. Defaults shown in Figure #9
7. DISPLAY DECIMAL POINT / COMMA (CHOICE AND LOCATION)
   Decimal point in position .00
8. COIN VALUES (U.S. values shown)
   Programmed at manufacture per country / application. Defaults shown in Figure #9

   Note: Batch print, grand print and RS232 communications port (items #9 – #11) Require the RS232 interface option to operate.
9. BATCH PRINT LENGTH / NUMBER OF COPIES
   Long printout with 1 copy

default settings

10. GRAND PRINT LENGTH / NUMBER OF COPIES
    Long printout with 1 copy

11. RS232 COMMUNICATION PORT PARAMETERS

    Port #1
    9600 Baud – No Parity – 7 Data Bits – Print Format
    DTE – ACK / NAK Disabled

    Port #2
    Same as Port #1

12. PRINT ORDER (VALUE / DIAMETER SIZE)
    Value

13. BAGSTOPS (ENABLED / DISABLED)
    Enabled

14. BAGSTOP DISPLAY (UNITS OR VALUE)
    Value

COIN VALUE	STOP #1 UNITS	STOP #2 UNITS	STOP #3 UNITS (DEFAULT)
$.01	400	2500	5000
$.05	250	2000	4000
$.10	500	5000	10000
$.25	200	2000	4000
$.50	100	1000	2000
$1.00	140	500	1000

FIGURE #14
COIN VALUES / BAGSTOP SETTINGS (STANDARD)

COIN VALUE	STOP #1 UNITS (TUBING)	STOP #2 UNITS	STOP #3 UNITS	STOP #4 UNITS (DEFAULT)
$.01	50	400	2500	5000
$.05	40	250	2000	4000
$.10	50	500	5000	10000
$.25	40	180	2000	4000
$.50	20	100	1000	2000
$1.00	25	140	500	1000

FIGURE #15
COIN VALUES / BAGSTOP SETTINGS (MODEL 6300033)

changing parameters

The following pages explain in detail all the steps necessary to properly change the default settings of program parameters.

1. INITIALIZING THE PRINTER (PORT #1)

Note: The RS232 interface option must be present for printer operation (port#1 will not be active).

The Sorter must recognize that a Printer is connected, so that the proper communication link can be established.

A. Connect Printer to Port #1 at rear of Sorter.

B. If not in Programming Mode, hold the BATCH Key on the Control Down while turning the Power Switch “ON” to enter the programming mode.

C. Cycle the MOTOR ON / OFF Key until the Display shows:

PRINTER?	PRESS
BATCH = Y,	GRAND = N

The current selection will flash.

D. Press the BATCH Key (“YES”) to insure Control Communications to the Printer.

E. Switch Printer Power Switch ON.

F. Press “SEL” Key on Printer to place Printer on–line (green light “ON” on “SEL” Key).

G. Press the MOTOR ON / OFF Key to continue changing the Port Parameters, or turn the Sorter “OFF” to exit the programming mode.

Note: If a Batch or Grand Total is accepted and the printer has not been initialized, the printer tape may not advance far enough for proper tear–off. Initialize the printer (steps A–G above). Switch the printer power switch off, wait a few seconds, then switch the printer on again.

remote batch / PC cash

2. INITIALIZING THE REMOTE BATCH TOTAL DISPLAY (PORT #2)

Note: The RS232 interface option must be present for remote Batch Total Display operation.

The Sorter must recognize that a Remote Display is connected, so that the proper communication link can be established.

A. Connect Remote Display to Port #2 at rear of Sorter.

B. If not in Programming Mode, hold the BATCH Key on the Control Down while turning the Power Switch "ON" to enter the programming mode.

C. Cycle the MOTOR ON / OFF Key until the Display shows:

DISPLAY?	PRESS
BATCH = Y,	GRAND = N

The current selection will flash.

D. Press the BATCH Key ("YES") to insure Control Communications to the Remote Display.

E. Press the MOTOR ON / OFF Key to continue changing the Port Parameters, or turn the Sorter "OFF" to exit the programming mode.

3. PC CASH FEATURE

This feature allows the Sorter to operate in an enhanced mode for compatibility with a DEPROS™ cash settlement system.

A. Hold the BATCH Key on the Control Down while turning the Power Switch "ON" to enter the programming mode.

B. Cycle the MOTOR ON / OFF Key until the Display shows:

PC CASH?	PRESS
BATCH = Y,	GRAND = N

C. Press the BATCH Key ("YES") to enable the PC Cash feature.

D. Turn the Sorter "OFF" to exit the programming mode.

salem / all keys active

4. SALEM ACTIVE FEATURE (CSS)

This feature allows the Sorter to work with older cash settlement systems. Requires proper Interface Module. Contact your Authorized Representative.

A. If not in Programming Mode, hold the BATCH Key on the Control Down while turning the Power Switch “ON” to enter the programming mode.

B. Cycle the MOTOR ON / OFF Key until the Display shows:

USE CSS?	PRESS
BATCH = Y,	GRAND = N

C. Press the BATCH Key (“YES”) to enable the Salem feature.

D. Press the MOTOR ON / OFF Key to continue changing the Port Parameters, or turn the Sorter “OFF” to exit the programming mode.

5. ALL KEYS ACTIVE

This feature disables all Keys except the MOTOR ON / OFF and ACCEPT Keys for security or supervisory purposes.

A. If not in Programming Mode, hold the BATCH Key on the Control Down while turning the Power Switch “ON” to enter the programming mode.

B. Cycle the MOTOR ON / OFF Key until the Display shows:

ALL KEYS ON?	PRESS
BATCH = Y,	GRAND = N

C. Press the GRAND Key (“NO”) to disable the appropriate keys.

D. Press the MOTOR ON / OFF Key to continue changing the Port Parameters, or turn the Sorter “OFF” to exit the programming mode.

6. PROGRAM BAGSTOP VALUES (STANDARD)

Note: To avoid miscounting, coin spills, and nuisance “Clean Photocell” display messages, select a drawer stop quantity that does not fill the drawer above the “Fill–Line” inside the drawer (approximately 22mm from drawer top).

A. If not in Programming Mode, hold the BATCH Key on the Control Down while turning the Power Switch “ON” to enter the programming mode.

B. Cycle MOTOR ON / OFF Key until Display shows:

SELECT BAG STOPS
–USE BATCH KEY

C. Cycle BATCH Key to display the denomination to be changed. The existing value for that coin will be displayed.

EXAMPLE:

Represents a bagstop quantity of 5000 pieces for denomination .01 selection (stop) #1.

5000
.01 – STOP 1

D. Cycle the ACCEPT Key to show the other two choices available for that coin.

400
.01 – STOP 2

OR

2500
.01 – STOP 3

bagstop values

E. When the Display shows the stop choice to be reprogrammed with a different quantity:

1. Cycle the GRAND Key to the digit column to be changed. The digit will flash.
2. Cycle the BAG STOP Key to decrement (decrease) the digit value. Cycle the BAG COUNT Key to increment (increase) the digit value.

Note: All Entries Are in **Unit** Values **Only** !!!

F. If you wish to reset all bag stop settings to their default settings, press the CLEAR Key.

G. Exit using one of the following:

Cycle the BATCH Key to move to the next Bagstop to be programmed

OR

Press the MOTOR ON / OFF Key to continue programming

OR

Turn the Sorter “OFF” to exit the programming mode.

bagstop values

7. PROGRAM BAGSTOP VALUES (MODEL 6300033)

A. If not in Programming Mode, hold the BATCH Key on the Control Down while turning the Power Switch “ON” to enter the programming mode.

B. Cycle MOTOR ON / OFF Key until Display shows:

C. Cycle BATCH Key to display the denomination to be changed. The existing value for that coin will be displayed.

EXAMPLE:

Represents a tubing quantity of 50 pieces for denomination .01 selection (stop) #1.

D. Cycle the ACCEPT Key to show the other three choices available for that coin.

E. When the Display shows the stop choice to be reprogrammed with a different quantity:

1. Cycle the GRAND Key to the digit column to be changed. The digit will flash.
2. Cycle the BAG STOP Key to decrement (decrease) the digit value. Cycle the BAG COUNT Key to increment (increase) the digit value.

Note: All Entries Are in **Unit** Values **Only** !!!

F. If you wish to reset all bag stop settings to their default settings, press the CLEAR Key.

G. Exit using one of the following:

Cycle the BATCH Key to move to the next Bagstop to be programmed

OR

Press the MOTOR ON / OFF Key to continue programming

OR

Turn the Sorter “OFF” to exit the programming mode.

Note: To avoid miscounting, coin spills, and nuisance “Clean Photocell” display messages, select a drawer stop quantity that does not fill the drawer above the “Fill–Line” inside the drawer (approximately 22mm from drawer top).

```
SELECT BAG STOPS
–USE BATCH KEY
```

```
TUBING          50
.01 – STOP 1
```

```
                400
          .01 – STOP 2
```

OR

```
                2500
          .01 – STOP 3
```

OR

```
BAGGING         5000
          .01 – STOP 4
```

decimal point / comma

8. DECIMAL POINT / COMMA SELECTION AND DISPLAY LOCATION

To change the use of a decimal point or a comma:

A. If not in Programming Mode, hold the BATCH Key on the Control Down while turning the Power Switch "ON" to enter the programming mode.

B. Cycle MOTOR ON / OFF Key until Display shows:

C. To select Decimal Point / Comma

1. Press BAG STOP Key. Display will show:

DECIMAL PT SPECS –USE BAG STP / CNT

DISPLAY WILL USE DECIMAL POINT

OR

DISPLAY WILL USE COMMA

Repeated depressions of the BAG STOP Key will select between the Displays. When the Display you desire is shown, either:

Press the BAG COUNT Key to select the Decimal Point / Comma position (See "D" on the following page).

OR

Press the MOTOR ON / OFF Key to continue programming.

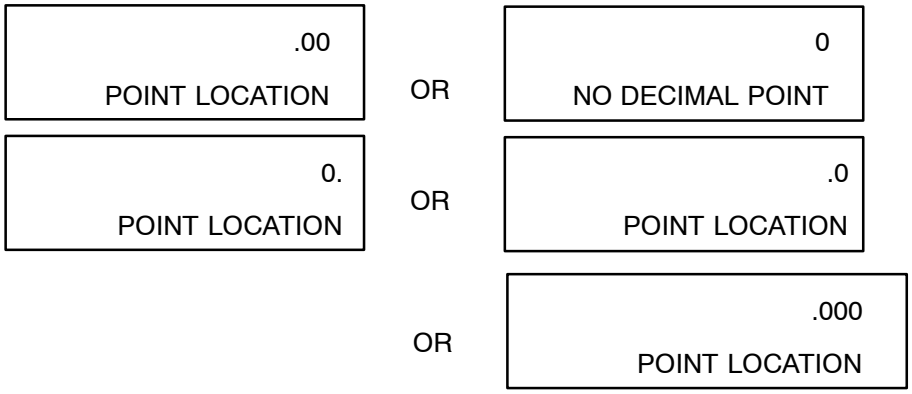
OR

Turn the Sorter "OFF" to exit the programming mode.

decimal point / comma

D. To select Decimal Point / Comma position:

1. Cycle BAG COUNT Key. Display will alternately show one of the following:



Note: Although the word “Point” is displayed in these examples, the location position refers to “Comma”, if chosen in “C”.

E. When the display you require is shown, either:

Press the MOTOR ON / OFF Key to continue programming

OR

Turn the Sorter “OFF” to exit the programming mode.

coin values

9. PROGRAM COIN VALUES

To change the Coin Value per Sorting Station:

A. If not in Programming Mode, hold the BATCH Key on the Control Down while turning the Power Switch "ON" to enter the programming mode.

B. Cycle MOTOR ON / OFF Key until Display shows:

C. Cycle BATCH Key to display the Sorting Station to be changed. The existing information for that station will be displayed. Refer to Figure #6 for Coin Drawer / Bag locations.

SET COIN SPECS –USE BATCH KEY	

DISABLED COIN 1 VALUE	OR	#1 COIN 1 VALUE
NO COUNT		UNIT TOKEN TYPE
.05 COIN 1 VALUE	OR	# .01 COIN 1 VALUE
COIN TYPE		TOKEN W / VALUE

D. To change the existing coin value, proceed to Step "E". If the coin is to be disabled (no count), programmed for a token count (unit count – does not add to totals), or changed to a coin type (denomination value – adds to total), cycle the ACCEPT Key. The Display will show:

DISABLED COIN 2 VALUE	OR	UNIT TOKEN TYPE COIN 2 VALUE
COIN TYPE COIN 2 VALUE	OR	TOKEN W / VALUE COIN 2 VALUE

coin values

E. When the Display shows the value to be reprogrammed with a different value:

1. Cycle the GRAND Key to the digit column to be changed. The digit will flash.

2. Cycle the BAG STOP Key to decrement (decrease) the digit value. Cycle the BAG COUNT Key to increment (increase) the digit value.

F. If you wish to reset all coin values to their default settings, press the CLEAR Key.

G. Exit using one of the following:

Cycle the BATCH Key to move to the next Sorting Station to be reprogrammed
OR

Press the MOTOR ON / OFF Key to continue programming

OR

Turn the Sorter “OFF” to exit the programming mode.

batch print

10. BATCH PRINT LENGTH / NUMBER OF COPIES

Note: The RS232 interface option must be present for printer operation (port#1 will not be active).

A. If not in Programming Mode, hold the BATCH Key on the Control Down while turning the Power Switch "ON" to enter the programming mode.

B. Cycle MOTOR ON / OFF Key until Display shows:

SET BATCH PRINT
–USE BAG STP / CNT

C. Cycle the BAG STOP Key to select between the Displays.

BATCH –LONG–
PRINTOUT

OR

BATCH –SHORT–
PRINTOUT

D. When the display you desire is shown, cycle the BAG COUNT Key to display the number of copies you require.

BATCH 1
OF PRINTOUTS

E. Exit using one of the following:

Press the MOTOR ON / OFF Key to continue programming

OR

Turn the Sorter "OFF" to exit the programming mode.

Examples of long and short Batch Printouts are shown in FIGURE #16.

Note: The sub line on the printout is not used during normal operation, but is included in the program to maintain compatibility with other RS232 peripherals.

B A T C H	A C C E P T
BATCH	01
SUB	00
GRAND	00
.10	17.10
.01	6.01
.05	9.05
.25	33.25
.50	7.50
1.00	21.00
TOTAL COIN	93.91
	=========
TOTAL	93.91

LONG

B A T C H	A C C E P T
BATCH	01
SUB	00
GRAND	00
TOTAL	93.91

SHORT

FIGURE #16
BATCH TOTAL PRINTOUTS

grand print

11. GRAND PRINT LENGTH / NUMBER OF COPIES

Note: The RS232 interface option must be present for printer operation (port#1 will not be active).

A. If not in Programming Mode, hold the BATCH Key on the Control Down while turning the Power Switch “ON” to enter the programming mode.

B. Cycle MOTOR ON / OFF Key until Display shows:

SET GRAND PRINT
–USE BAG STP / CNT

C. Cycle the BAG STOP Key to select between the Displays.

GRAND –LONG– PRINTOUT	OR	GRAND –SHORT– PRINTOUT

D. When the display you desire is shown, cycle the BAG COUNT Key to display the number of copies you require.

GRAND	1
# OF PRINTOUTS	

E. Exit using one of the following:

Press the MOTOR ON / OFF Key to continue programming

OR

Turn the Sorter “OFF” to exit the programming mode.

Examples of long and short GRAND printouts are shown in FIGURE #17.

grand print

```
GRAND    ACCEPT
GRAND              00

TOTAL          376.39
```

SHORT

```
GRAND    ACCEPT
GRAND              00
PARTIAL BAG TOTALS
      .01         100
      .05         330
      .10         714
      .25        1245
      .50          70
     1.00          22
                 ----------
TOTAL            2481

GRAND TOTALS
      .01        1.00
      .05       16.50
      .10        7.14
      .25      311.25
      .50       35.00
     1.00       22.00
TOTAL COIN     376.39
                 ----------
TOTAL          376.39
PC CNT           2481
SORT CNT          005
```

QUANTITY OF COIN CURRENTLY IN DRAWERS OR BAGS

INDIVIDUAL COIN VALUES

TOTAL VALUE

TOTAL QUANTITY OF COIN COUNTED

TOTAL NUMBER OF BATCH ACCEPTS

LONG

FIGURE #17
GRAND TOTAL PRINTOUTS

12. RS232 COMMUNICATION PORT PARAMETERS

Note: This feature requires the RS232 interface option to operate.

Model	Interface Cable	DCE / DTE	Baud Rate	Data Bits	PARITY	DTR / DSR	RTS / CTS	Port (s)	Display Selection	Comments
RS232 INTERFACE										
8700	D300847	DTE	1200	7	NONE	- - -	- - -	1-2	- - -	CONNECT TO RS232 EIA1
4810	D300847	DTE	1200	7	NONE	- - -	- - -	1-2	- - -	COIN = COMM PORT 6
CSS INTERFACE										
8700	0035909	CSS	- - -	- - -	- - -	- - -	- - -	1	- - -	MODULE # = 0035911 ALL SETTINGS SET WITH PC-CASH
865	0035909	CSS	- - -	- - -	- - -	- - -	- - -	1	- - -	MODULE # = 0035910 ALL SETTINGS SET WITH PC-CASH
36886	- - -	DTE	19.2K	8	NONE	- - -	- - -	2	- - -	- - -
36888	0033131	DTE	9600	8	NONE	- - -	RTS	1-2-3	- - -	PORT 3 HAS DIFFERENT FORMAT
DEPROS	- - -	DTE	- - -	- - -	- - -	- - -	- - -	1	- - -	PC-CASH SELECTION = YES

12.0 SELECT BAUD RATE

A. If not in Programming Mode, hold the BATCH Key on the Control Down while turning the Power Switch "ON" to enter the programming mode.

B. Cycle MOTOR ON / OFF Key until Display shows:

PROGRAM PORTS

USE BAG STOP KEY

C. Press BAG STOP Key. The Display will show the following:

SELECT PORT NO.,

USE BG COUNT KEY

D. Cycle the BAG COUNT Key until the Display shows the port you wish to change.

EXAMPLE: PORT #1

PORT 1; 9600, N, 7, P

DTE, RTS

⚠CAUTION

THE BAUD RATE THAT YOU SELECT WILL APPLY **ONLY** TO THE PORT YOU HAVE SELECTED IN ITEM "D" ABOVE.

baud rate

E. Cycle the BAG STOP Key until the Display shows the following:

SELECT BAUD RATE USE BG COUNT KEY

F. Cycle the Bag Count Key to display the Baud Rate you require.

Note: Baud rates available:
300 / 1200 / 2400 / 9600 / 19,200

G. Exit using one of the following:

Press BAG STOP Key to select the next communications parameter

OR

Press MOTOR ON / OFF Key to select the next programming parameter

OR

Turn the Sorter “OFF” to exit the programming mode.

12.1 SELECT PARITY

A. If not in Programming Mode, hold the BATCH Key on the Control Down while turning the Power Switch “ON” to enter the programming mode.

B. Cycle MOTOR ON / OFF Key until Display shows:

PROGRAM PORTS USE BAG STOP KEY

C. Press BAG STOP Key. The Display will show the following:

SELECT PORT NO., USE BG COUNT KEY

D. Cycle the BAG COUNT Key until the Display shows the port you wish to change.

EXAMPLE: PORT #1

PORT 1; 1200, N, 7, P DTE

parity

CAUTION

THE PARITY THAT YOU SELECT WILL APPLY **ONLY** TO THE PORT YOU HAVE SELECTED IN ITEM “D” ABOVE.

E. Cycle the BAG STOP Key until the Display shows the following:

SELECT PARITY
USE BG COUNT KEY

F. Cycle the BAG COUNT Key to display the parity you require (none, even, or odd).
EXAMPLE:

NONE	
PORT 1	PARITY

Note: Be sure display shows correct port number (to change, see item “D” on previous page)

G. Exit using one of the following:

Press BAG STOP Key to select the next communications parameter

OR

Press MOTOR ON / OFF Key to select the next programming parameter

OR

Turn the Sorter “OFF” to exit the programming mode.

12.2 SELECT DATA BITS

A. If not in Programming Mode, hold the BATCH Key on the Control Down while turning the Power Switch “ON” to enter the programming mode.

B. Cycle MOTOR ON / OFF Key until Display shows:

PROGRAM PORTS USE BAG STOP KEY

C. Press BAG STOP Key. The Display will show the following:

SELECT PORT NO., USE BG COUNT KEY

D. Cycle the BAG COUNT Key until the Display shows the port you wish to change.

PORT 1; 1200, N, 7, P DTE

EXAMPLE: PORT #1

⚠CAUTION

THE DATA BITS THAT YOU SELECT WILL APPLY **ONLY** TO THE PORT YOU HAVE SELECTED IN ITEM “D” ABOVE.

E. Cycle the BAG STOP Key until the Display shows the following:

SELECT DATA BITS USE BG COUNT KEY

data bits

EXAMPLE:

7
PORT 1 DATA BITS

F. Cycle the BAG COUNT Key to display the data bits you require (7 or 8).

Note: Be sure display shows correct port number (to change, see item “D” above)

G. Exit using one of the following:

Press BAG STOP Key to select the next communications parameter

OR

Press MOTOR ON / OFF Key to select the next programming parameter

OR

Turn the Sorter “OFF” to exit the programming mode.

12.3 SELECT ACK / NAK ENABLE

A. If not in Programming Mode, hold the BATCH Key on the Control Down while turning the Power Switch “ON” to enter the programming mode.

B. Cycle MOTOR ON / OFF Key until Display shows:

PROGRAM PORTS
USE BAG STOP KEY

C. Press BAG STOP Key. The Display will show the following:

SELECT PORT NO.,
USE BG COUNT KEY

ACK / NAK

EXAMPLE: PORT #1

```
PORT 1;  1200,  N,  7,  P
DTE
```

D. Cycle the BAG COUNT Key until the Display shows the port you wish to change.

⚠CAUTION

THE ACK / NAK THAT YOU SELECT WILL APPLY **ONLY** TO THE PORT YOU HAVE SELECTED IN ITEM “D” ABOVE.

```
ENABLE  ACK / NAK  ?
USE BG COUNT KEY
```

E. Cycle the BAG STOP Key until the Display shows the following:

EXAMPLE:

```
                DISABLED
PORT 1          ACK / NAK
```

F. Cycle the BAG COUNT Key to enable or disable ACK / NAK.

Note: Be sure Display shows correct port number (to change, see item “D” above)

G. Exit using one of the following:

Press BAG STOP Key to select the next communications parameter

OR

Press MOTOR ON / OFF Key to select the next programming parameter

OR

Turn the Sorter “OFF” to exit the programming mode.

RTS / CTS

12.4 SELECT RTS / CTS ENABLE

A. If not in Programming Mode, hold the BATCH Key on the Control Down while turning the Power Switch “ON” to enter the programming mode.

B. Cycle MOTOR ON / OFF Key until Display shows:

PROGRAM PORTS USE BAG STOP KEY

C. Press BAG STOP Key. The Display will show the following:

SELECT PORT NO., USE BG COUNT KEY

D. Cycle the BAG COUNT Key until the Display shows the port you wish to change.

EXAMPLE: PORT #1

PORT 1; 1200, N, 7, P DTE

⚠CAUTION

THE RTS / CTS THAT YOU SELECT WILL APPLY **ONLY** TO THE PORT YOU HAVE SELECTED IN ITEM “D” ABOVE.

E. Cycle the BAG STOP Key until the Display shows the following:

ENABLE RTS / CTS USE BG COUNT KEY

F. Cycle the BAG COUNT Key to enable or disable RTS / CTS.

EXAMPLE:

DISABLED PORT 1 RTS / CTS

THIS COMPLETES THE SETUP FOR THE SELECTED PORT.

Press BAG STOP Key to cycle back to beginning of the programming section to program the parameters for the other port

OR

Press MOTOR ON / OFF Key to exit port parameters and select the next programming parameter

OR

Turn the Sorter “OFF” to exit the programming mode.

13. Select print order by value / size.

To select the order of the denominations to be printed by increasing Coin Value or by Sorting Station location:

Note: This feature requires the RS232 interface option to operate.

A. If not in Programming Mode, hold the BATCH Key on the Control Down while turning the Power Switch “ON” to enter the programming mode.

B. Cycle MOTOR ON / OFF Key until Display shows:

SET PRINT ORDER USE BAG STOP KEY

C. Cycle BAG STOP Key to select either of the following choices:

PRINT COINS IN ORDER OF VALUE

OR

PRINT COINS IN ORDER OF SIZE

D. Exit using one of the following:

Press MOTOR ON / OFF Key to select the next programming parameter

OR

Turn the Sorter “OFF” to exit the programming mode.

bagstops enabled / disabled

14. Select if Bagstops are active or disabled.

To eliminate any bagstopping without setting Bagstop values to all zeros:

A. If not in Programming Mode, hold the BATCH Key on the Control Down while turning the Power Switch “ON” to enter the programming mode.

B. Cycle MOTOR ON / OFF Key until Display shows:

BAG STOPS ACTIVE? USE BAG STOP KEY

C. Cycle BAG STOP Key to select either of the following choices:

BAG STOPS ARE ENABLED	OR	BAG STOPS ARE DISABLED

D. Exit using one of the following:

Press MOTOR ON / OFF Key to select the next programming parameter

OR

Turn the Sorter “OFF” to exit the programming mode.

unit / value display

15. Select unit or value display for Bagstop and bag count.

To choose between unit or value count:

A. If not in Programming Mode, hold the BATCH Key on the Control Down while turning the Power Switch “ON” to enter the programming mode.

B. Cycle MOTOR ON / OFF Key until Display shows:

UNIT OR DOLLARS?
USE BAG STOP KEY

C. Cycle BAG STOP Key to select either of the following choices:

BAG COUNTS / STOPS
ARE DOLLAR VALUE

OR

BAG COUNTS / STOPS
ARE UNIT VALUE

D. Exit using one of the following:

Press MOTOR ON / OFF Key to select the next programming parameter

OR

Turn the Sorter “OFF” to exit the programming mode.

terms / parameters

INTRODUCTION

This feature provides a common communications link between the Mach 3 Sorter and other equipment allowing the various items to “talk” to each other.

The Control is programmable, allowing the Sorter to be “matched” to other equipment that is connected to the RS232 Port at the rear.

The information contained in this section is not part of normal Sorter operation. It has been included for those individuals who wish to interface to other peripherals obtained or supplied by other manufacturers.

TERMS

Baud Rate – The rate at which the information is sent must be the same rate at which the information is received.

Data Bits – Number of bits comprising a character (must be seven or eight).

Parity Bit – A bit sent after the Data Bits used for error detection. It is computed from the Data Bits by both transmitting and receiving devices and the result is compared.

Stop Bits – Number of bits indicating the end of a character. Must be one or two.

ACK/NAK – When information is sent, the receiver may be “busy” doing other functions. If the information is received, an “ACK” (acknowledged) character will be returned and the transaction will be complete. If the information is not received, a “NAK” (non–acknowledge) character will be returned and the information will be resent. If three “NAK” characters are received, the Control will display “Communications Error”.

DEFAULT PARAMETERS

9600 BAUD
7 DATA BITS
1 STOP BIT
NO PARITY
NO HARDWARE HANDSHAKING
ACK/NAK DISABLED
XON/XOFF ENABLED

CONNECTORS (PORTS)

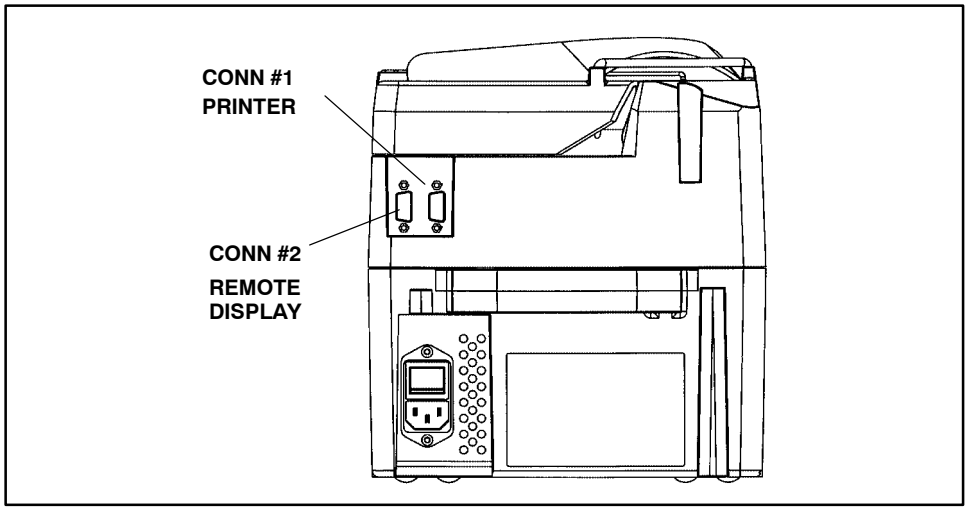


FIGURE #18
RS232 PORTS

The communication interface conforms to a subset of electrical specifications of EIA standard RS232, INTERFACE BETWEEN DATA TERMINAL EQUIPMENT EMPLOYING SERIAL BINARY DATA INTERCHANGE, except as noted below and with any improvements which may subsequently be made to that standard.

The RS232 port can be connected directly to a computer or peripherals. The RS232 port is available via subminiature “D” 9 pin male connector.

batch accept

EIA RS232 Remote DTE Interface

Pin	Signal	Number Designation	Function	Direction
1	–	–		–
2	BA		Received Data	Input
3	BB		Transmitted Data	Output
4	CD		Data Terminal Ready	Jumped to DSR
5	AB		Signal Ground	–
6	CC		Data Set Ready	Jumped to DTR
7	CA		Request to Send	Output
8	CB		Clear to Send	Input

DATA FORMATS – PRINTER MODE

The order of data output coin value can vary depending upon what is programmed into the Control. Following are typical output examples:

BATCH ACCEPT

```
(CN)(SO)BATCH ACCEPT(D4)
(NU)(NU)(NU)(NU)(NU)
(NU)(NU)(NU)(NU)(NU)
BATCH^^^^^^^^^^^^^^^XXX(CR)
SUB^^^^^^^^^^^^^^^^^00(CR)
GRAND^^^^^^^^^^^^^^^00(CR)
^^^^^^.50^^^^^XXXXXX.XX(CR)
^^^^^1.00^^^^^XXXXXX.XX(CR)
^^^^^^.25^^^^^XXXXXX.XX(CR)
^^^^^^.05^^^^^XXXXXX.XX(CR)
^^^^^^.01^^^^^XXXXXX.XX(CR)
^^^^^^.10^^^^^XXXXXX.XX(CR)
TOTAL COIN^^^^XXXXXX.XX(CR)

^^^^^^^^^^^^^---------(CR)
TOTAL^^^^^^^^^XXXXXX.XX(CR)
                      (CR)
                      (CR)
                      (CR)
                      (CR)
```

```
BATCH ACCEPT

  BATCH    #ID
  SUB      #ID
  GRAND    #ID
  $0.50  TOTAL
  $1.00  TOTAL
  $0.25  TOTAL
  $0.05  TOTAL
  $0.01  TOTAL
  $0.10  TOTAL
  TOTAL COIN

  ---------
  TOTAL
```

End of Transmission

grand accept

GRAND TOTAL ACCEPT

```
(CN)(SO)GRAND ACCEPT(D4)(NU)
(NU)(NU)(NU)(NU)(NU)(NU)(NU)
GRAND^^^^                (CR)
PARTIAL BAG TOTALS^^^^^(CR)
(NU)(NU)(NU)(NU)(NU)
^^^^^^.01^^^^^XXXXXX.XX(CR)
^^^^^^.05^^^^^XXXXXX.XX(CR)
^^^^^^.10^^^^^XXXXXX.XX(CR)
^^^^^^.25^^^^^XXXXXX.XX(CR)
^^^^^^.50^^^^^XXXXXX.XX(CR)
^^^^^1.00^^^^^XXXXXX.XX(CR)
^^^^^^^^^^^^^^---------(CR)
TOTAL^^^^^^^^^XXXXXX.XX(CR)
^^^^^^^^^^^^^^^^^^^^^^(CR)
GRAND TOTALS(CR)(NU)(NU)(NU)
(NU)(NU)(NU)(NU)(NU)(NU)(NU)
^^^^^^.50^^^^^XXXXXX.XX(CR)
^^^^^1.00^^^^^XXXXXX.XX(CR)
^^^^^^.25^^^^^XXXXXX.XX(CR)
^^^^^^.05^^^^^XXXXXX.XX(CR)
^^^^^^.01^^^^^XXXXXX.XX(CR)
^^^^^^.10^^^^^XXXXXX.XX(CR)
TOTAL COIN^^^^XXXXXX.XX(CR)

^^^^^^^^^^^^^^---------(CR)
TOTAL^^^^^^^^^XXXXXX.XX(CR)
PC CNT^^^^^^^^XXXXXXXX(CR)
^^^^^^^^^^^^^^^^^^^^^^(CR)
                        (CR)
                        (CR)
                        (CR)
                        (CR)
```

```
GRAND ACCEPT
  BATCH   #ID
PARTIAL BAG TOTALS
   $0.01  TOTAL
   $0.05  TOTAL
   $0.10  TOTAL
   $0.25  TOTAL
   $0.50  TOTAL
   $1.00  TOTAL
   ---------
   Total

   Grand TotalS

   $0.50  TOTAL
   $1.00  TOTAL
   $0.25  TOTAL
   $0.05  TOTAL
   $0.01  TOTAL
   $0.10  TOTAL
   TOTAL COIN

   ---------
   TOTAL
   PIECE COUNT
```

END OF TRANSMISSION

NOTE:

1. "^" CHARACTER = SPACE (ASCII–20 HEX)
2. "X" CHARACTER = ANY NUMBER
3. "–" CHARACTER = ASCII "–" = 2D HEX
4. "(CR)" = CARRIAGE RETURN
5. IF A FIELD HAS NO VALUE, IT IS NOT SENT
6. LEADING ZEROS ARE FILLED BY SPACES
7. ALL OUTPUTS END WITH FIVE CARRIAGE RETURNS
8. "(CN)" = ASCII CONTROL CHARACTER = 18 HEX (CTRL X)
9. "(SO)" = ASCII CONTROL CHARACTER = 0E HEX (CTRL N)
10. "(D4)" = ASCII CONTROL CHARACTER = 14 HEX (CTRL T)
11. "(NU)" = ASCII NULL CHARACTER = 00 HEX (PAUSE)

PC cash

PC CASH SERIAL PORT MODE

The PC CASH serial port mode allows Port #1 to remotely monitor and control the Sorter. The following is a listing of abbreviations used in the PC CASH mode of operation:

STX . . . . . Start of text.

ETX . . . . . End of text.

CMD . . . . . Command field (two bytes). Tells the Control or computer what the following information contains.

MES . . . . . Message field. Contains coin/token totals or other information.

STS . . . . . Status bytes. Five bytes containing information telling computer results of a command or machine

STS FORMAT . . Set up + action field

SETUP . . . . . Two bytes indicating dollars or units. “$0” = dollars. “UO” = units.

ACTION FIELD . Three byte ASCII field indicating status of machine. Examples: Complete = OK, Function error = FUN.

“X” . . . . . Indicates character(s) within quotes are ASCII characters.

DEFAULT PORT PARAMETERS WHEN PC CASH MODE IS SELECTED

BAUD Rate . . . . . 9600 BPS
Parity . . . . . Parity OFF
Word Length . . . . . 8 Bits
DTE / DCE Select. DTE
Handshaking . . . . . RTS / CTS enabled
Stop Bit . . . . . 1 Bit
ACK / NAK . . . . . Disabled

Note: All parameters are set when selecting PC cash mode.

status command

When the status command is received on the port, the Control will respond in one of the following ways:

A status word (three bytes) will be returned indicating the status of the Sorter. The definitions are as follows:

OK1 . . . Message was received and command has been completed. Three bytes the OK is followed by a 1 or 0.
1 = The Motor has been run. A 2–second delay must be made after this response and the time an “AB” (Accept Batch) command is sent.
2 = The Motor has not been run.

PRN . . . Indicates a message is in the buffer. The proper response is an ACK or NAK.

E?? . . . . The message was received, but command cannot be completed because of a functional error. Examples are:
E04 = Dirty Coin Sensor
E05 = Low Battery

accept command

Operates as the Accept Key operates. Sends totals to PC CASH port. When sending date to the port the Sorter ignores any incoming message until the ACCEPTED data has been ACK'd.

The Accept Data Command format is as follows:

PC CASH Sends	– STX : AB :
ETX	– Batch
Control Sends	The output is defined in Printer Mode section
PC CASH Responds	ACK / NAK

If power is lost to the Sorter during data transmission (message not completely sent) when power is restored the controlling device must ACK or NAK (for a retransmit of data) WITHIN 30 SECONDS OR DATA WILL BE LOST. At this point the Sorter will generate a "Communications Error". The response to a status is "PRN".

When the "ACCEPT" command is received via the serial port, the coin totals are sent out to the serial ports. The Control will wait for the "ACK" to be returned before the BATCH Total is cleared from the memory. If the Control receives a "NAK", the total is then retransmitted and NOT cleared from memory. At this point if a status command is received the response is "PRN".

If the Control receives three (3) NAK's in a row or 30 seconds pass without an ACK / NAK, the Control will display "COMMUNICATIONS ERROR" on the display. This display indicates that the computer is not responding. This can be cleared by pressing the "CLEAR" Key.

The control will monitor the DSR / DTR line to see if it is connected to a PC CASH unit. If it is marking (negative voltage), then the "ACCEPT" Key is disabled and the Sorter is under PC CASH control. If DSR is positive, the Sorter will run as a normal Sorter. This is only valid when the PC CASH mode is enabled.

The data formats are the same as those in Printer Mode of this specification. The long print format must be used (default). A BCC character is sent as the last character of the message. It is calculated by summing all characters sent (excluding the BCC character).

css interface

CSS INTERFACE MODE (ONLY ON PORT #1)

The CSS interface to other cash settlement systems requires an interface module. Contact your Authorized Service Representative for Assistance.

DATA COMMUNICATION

All parameters are set in the Sorter by selection of CSS–INT? in the programming menu. This is only available on Port #1, and no other peripheral will be functional when running CSS.

circuit protection

A coin (or other article) jam severe enough to stop the Sorting Motor will cause the Power Supply to go into a “foldback” (semi–shutdown) mode. The Sorter will stop and the Display will momentarily show:

De La Rue –	0000001
MACH – 3	BASIC

and then revert to show the current Batch Total.

Clear the jam and then press the MOTOR ON / OFF Key to continue operation.

sorter cleaning

!!! IMPORTANT SAFETY INFORMATION !!!

Many cleaning–related accidents are caused by failure to follow basic safety rules or written precautions. Accidents can be avoided if the operator is completely familiar with the Sorter and its operation.

Improper or inadequate maintenance or care of the Sorter can be dangerous and could result in damage to the Sorter or personal injury or death to you or other persons.

The frequency of any cleaning program must be determined by the operator, and will ultimately be controlled by operational environment (condition of coin, frequency of use, etc.).

⚠CAUTION

DISCONNECT THE POWER CORD FROM THE POWER SOURCE BEFORE CLEANING. THE COIN TOTALS AND BAGSTOP QUANTITIES WILL BE RETAINED BY THE BATTERY BACKUP CIRCUITRY WHEN THE POWER CORD IS UNPLUGGED.

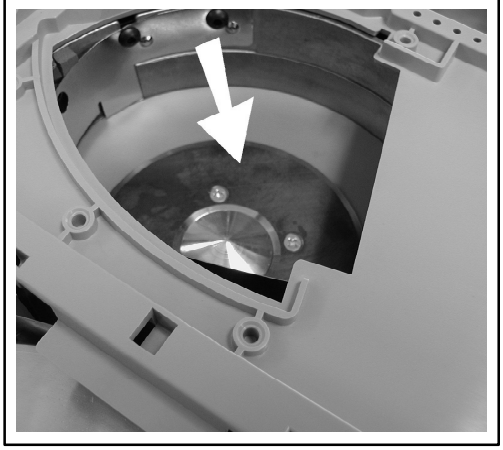


FIGURE #19

1. General Cleaning

The Sorter should be kept clean and free from dirt and dust. Clean the outside with a soft cloth and a mild soap. NEVER use alcohol, Ketone, or any harsh chemicals on the outside surfaces. NEVER spray any liquid directly onto the Control or inside the Sorter. A small portable vacuum is handy for removing coin dust buildups from surfaces inside the Sorter.

2. Cleaning the Input Metal Disc

If the metal disc becomes sticky, coins may remain on the metal disc. Remove the inspection pan. Pour a small amount of alcohol on a soft cloth. Use the damp area of the cloth to clean the metal disc as shown in FIGURE #19.

sorter cleaning

3. Cleaning Coin Sensors

The Coin Sensors, located at the coin exit points, control the counting and must be kept clean and free of dirt buildups, coin dust, bag strings, etc., at all times.

To clean the Coin Sensors:

⚠CAUTION

DISCONNECT THE POWER CORD FROM THE POWER SOURCE BEFORE CLEANING. THE COIN TOTALS AND BAGSTOP QUANTITIES WILL BE RETAINED BY THE BATTERY BACKUP CIRCUITRY WHEN THE POWER CORD IS UNPLUGGED.

a. Close the Inspection Pan completely and then lift straight up to remove.

b. Lift the Upper Front Cover for access to the finned Elastic Sorting Disc.

c. Remove the Disc by unscrewing the large knob in the center.

d. Referring to FIGURE #20, remove the protective foam and **CAREFULLY** clean the channel and each Count Sensor with a dry cotton–tipped swab.

e. Reverse the process to replace the Disc.

f. Close the Upper Front Cover and replace the Inspection Pan. Connect the Sorter to Power, and test with coin for proper operation.

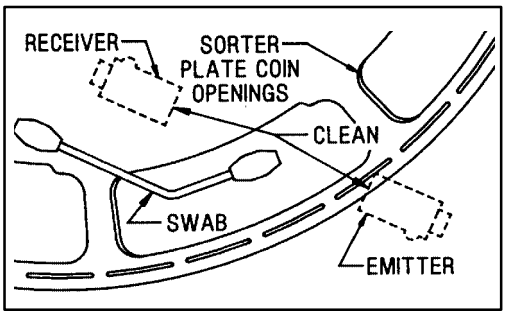


FIGURE #20
COUNT SENSOR CLEANING

jam removal

Should a Coin Drawer or Bag become overfilled, a blocked Sensor error will stop the Sorter.

The likely causes for this condition are:

a. Incorrect Bag Stop setting for size of Drawer or Bag.

b. Failure to empty Drawer or Bag at Bag Stop.

c. Improper installed or folded Coin Bag.

If a Coin Drawer is overfilled, remove the Drawer slowly so that coins are not spilled.

If a Coin Bag is overfilled, the coins will also backed–up inside the Coin Chute. Straighten the Bag and / or shake the Chute to allow the coins to fall / settle.

If the jam persists, carefully remove the Chute (place your hand under the Chute to retain the coins), empty the Chute into the Coin Bag, replace the Chute and resume operation.

service

A worldwide network of factory–trained service specialists are available either on call for information and / service or for execution of preventative maintenance programs scheduled through formal service contracts.

Our policy is to continually improve products. We reserve the right to change specifications and / or designs without notice.

De La Rue

DE LA RUE CASH SYSTEMS

Walton Road
Farlington, Portsmouth
Hampshire PO6 1TJ
England

Tel: +44 (0) 1705 383161
Fax: +44 (0) 1705 325822

DE LA RUE CASH SYSTEMS INC.

Box 200
705 S. 12th Street
Watertown, WI 53094
USA

Tel: (920) 262-3300
Fax: (920) 261-1783

Web: http://www.delarue.com

Reference: 0000650