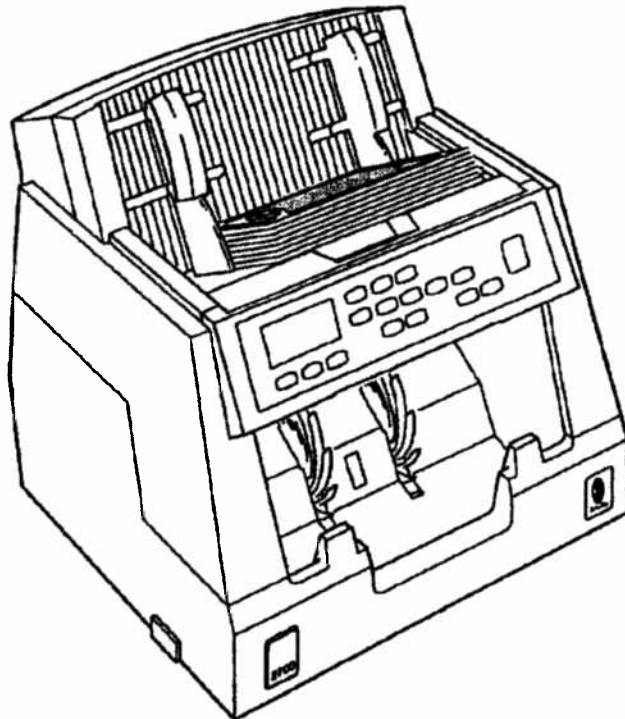




user guide

2700

Currency counting machine



**PLAINTIFF'S
EXHIBIT**

PX 544

9:07-CV-196 RHC(Consol.)

contents

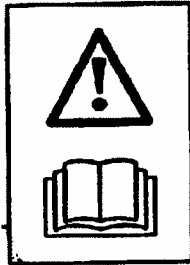
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Revision 1

2700 user guide



The 2700 product range is recognised by Underwriters Laboratories Inc.®
File number E143126



Warning

This machine has been designed for optimum safety for users. For your added protection please follow these guidelines.

Voltages above 42V are potentially dangerous. Always handle mains-supplied equipment with caution. Never open the machine when it is plugged in.

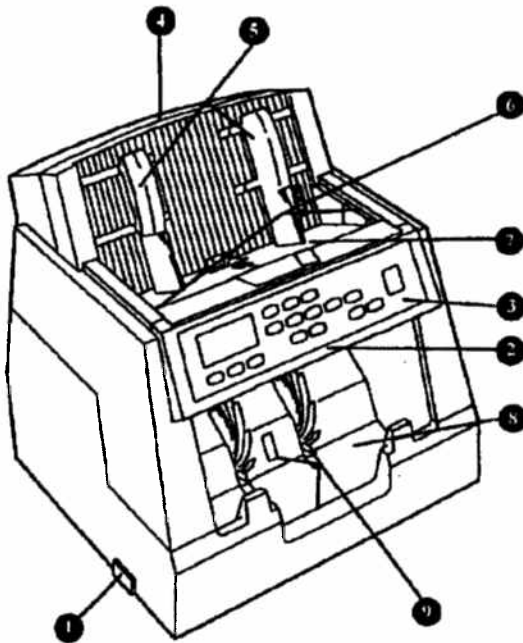
If the sensors are obscured the feed rollers will operate. Always keep loose clothing, jewellery and hair out of the feed hopper area when operating the machine.

Reference: TP00820061 – ISS1

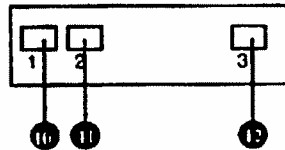
overview of machine

The 2700 model is an accurate, high speed, automatic value balancing banknote counting machine.

It has been designed to incorporate many useful features and to be easy to use and maintain, safe and reliable.



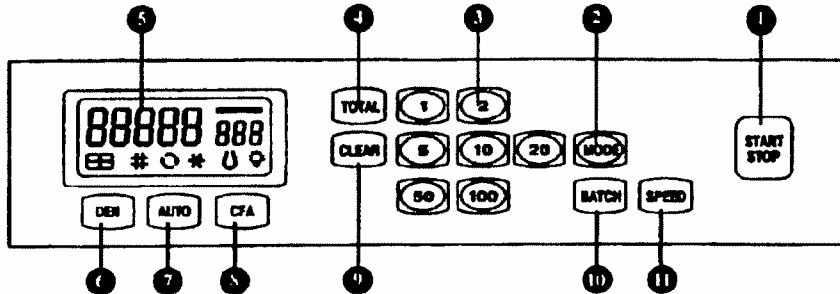
Rear of machine



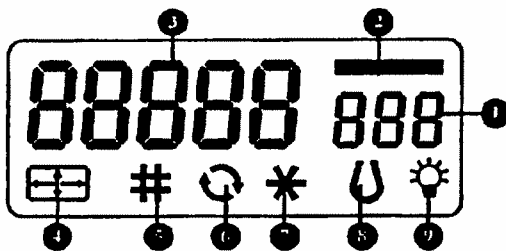
- | | | |
|----|--------------------|---|
| 1 | On / off switch | |
| 2 | Lifting point | hold under centre of control panel |
| 3 | Control panel | see page 4 |
| 4 | Note guide support | } aligns notes to be counted |
| 5 | Note guides | |
| 6 | Release buttons | for service/jam clearance/cleaning access |
| 7 | Hopper | notes are placed here for counting |
| 8 | Stacker | counted notes are collected here |
| 9 | Stacker sensor | for detecting counted notes |
| 10 | Port 1 | PC/printer connection) |
| 11 | Port 2 | spare) RS 232 only |
| 12 | Port 3 | service engineer only) |



2700 controls



- 1 Start/stop
- 2 Mode press to select mode of operation
- 3 Denomination keys
- 4 Total displays total of notes counted
- 5 Display
- 6 Den enables/disables note recognition detection
- 7 Auto enables/disables automatic start
- 8 CFA enables/disables detection of counterfeit notes
- 9 Clear clears display
- 10 Batch sets batch size, press to step through batch sizes
- 11 Speed sets throughput speed, press to step through preset speeds

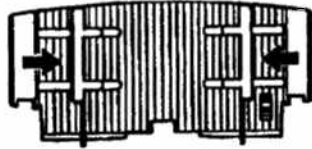


- 1 Batch display displays the batch quantity (000 for count mode)
- 2 Bar visible in count & batch mode, invisible in value mode
- 3 Count display displays the count
- 4 Note recognition visible if pattern detection is on
- 5 RS232 visible if the machine is on-line to PC
- 6 Autostart visible if autostart is on
- 7 reserved for future use
- 8 Magnetic detection visible if magnetics detection is on
- 9 UV Detection visible if UV detection is on

4

setting up

1



Notes must be positioned centrally. Adjust the note guides to the length of the note to be counted allowing adequate clearance for notes to move freely.

2



Notes to be counted should be placed in the hopper. They should be laid flat and stacked neatly together.

3



bowed notes



cornerfolded notes

When counting damaged or deformed notes, the following guidelines should be observed for optimum performance.

Place bowed notes with edges pointing down onto the hopper.

Cornerfolded notes should be sorted with the folds in the bottom right hand corner and the bundle placed face down onto the hopper.

4



Depending on the thickness of the notes being counted, you can adjust the feed gap where the notes enter the machine.

The control has eleven positions. Rotating the control downwards reduces the feedgap for thin notes, rotating upwards widens the gap for thick notes.

Please refer to the laminated card with the machine for advice on setting up the machine.

switching on



Connect the mains lead to the socket on the rear panel of the machine.

Plug the machine's power lead into a mains socket and switch on the mains supply.

Switch on the machine's on/off switch.

The machine will power up and complete a self test routine. The autostart function will be activated.



If ready Cns appears, press **CLEAR** to run off-line

On power up the machine will display the mode which has been saved in memory. This screen shows start-up in value count mode.

For feeding of poor quality notes, optimum feed performance can be achieved by turning the Auto-start OFF.

speed



Speeds can be selected between 600 notes per minute and 1400 notes per minute. You may want to reduce the speed, for example, when counting very poor quality notes.

Select the throughput speed by pressing the SPEED key.

Press this key repeatedly to step through the speeds that have been preset e.g. 1400, 1200, 1000, 600.

The factory default speed is 1400 notes per minute.



value mode

In value mode a bundle of mixed denomination notes can be valued in one pass, with individual totals held for each denomination.

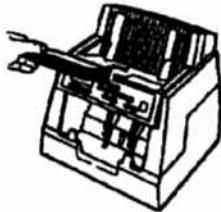
1



VALuE

Press the MODE key until 'VALuE' is shown on the display.

2



Place the notes to be counted on the feed hopper.



If AUTO is selected, the machine will start counting automatically. If not, press START.

0 VAL

The 2700VB will value each note individually

3

dEn 3



If during the count, the 2700VB stops and indicates 'dEn 3' in the display, this means that the 2700VB could not identify the denomination of the note, which is located third note down in the stack.
(DEN 1 = top note in stack
DEN 2 = second note down)

Leave the notes in the stacker. Examine the third note down and press the relevant denomination key to enter the value for that note.

Basic operating functions

value mode

4



If the denomination is '1', press the 1 key.



5



Press START again to resume the count.

6



If you do not want that note included in the total, (it might be damaged or a foreign note) remove the note, press CLEAR, the display shows 'd 0' to show that the denomination value has been deducted. Press START and the total without the removed note is shown. Press START again to resume the count.



7

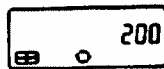


At the end of the count, the total value for the bundle will be displayed. If the CLEAR key is pressed before removing the bundle this count information is not added to the totals.

8

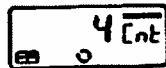


Press a denomination key to show the value of that denomination counted.



This example shows that for the 50 denomination, a value of 200 was counted.

9



Press it a second time to show the piece count for that same denomination.

This example shows that four notes were counted.

9

Basic operating functions

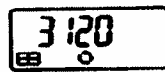
value mode

10



Removing the notes from the stacker pocket will cause the note value to be added to the Sub and Grand Totals

11



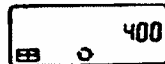
Sub-total

The machine will automatically show the Running Total for the deposit. (The value of notes counted since the Sub total was last cleared).

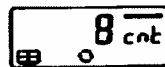
12



Press a denomination key to show the total value of that denomination counted.



This example shows that for the 50 denomination a total value of 400 was counted.



Press a second time to show the total piece count for the denomination.

This example shows that eight notes were counted.

13



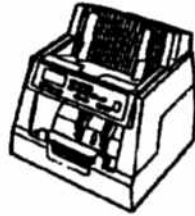
If the CLEAR key is pressed the sub-total will flash.
Press the CLEAR key again to reset the sub-total (running total).



Press the START/STOP key to cancel this operation.

The Grand total will not be affected.

14



Printer Output

If a printer is connected to the machine, a printed copy of count information can be given.

Pressing BATCH before the notes are removed from the stacker will print the information from the last bundle by denomination.

Removing the notes from the stacker and then pressing the BATCH key will print the count information held as the sub-total or running total.

15



Grand Total

The grand total (total of all notes counted) can be shown by pressing the TOTAL key.

The grand total can be shown by denomination by pressing each denomination key or printed by pressing the BATCH key.

If the clear key is pressed the grand total will flash. Press the CLEAR key again to reset the grand total.

Press the START/STOP key to allow the machine to count new note bundles.

Clearing the Grand Total will also clear the Sub-total.

rogue mode

In rogue mode the 2700VB will detect a different denomination in a single denomination bundle, using the first note through as a reference. It is also possible to batch the correct denomination notes simultaneously.

1



rogUE

Press the MODE key until 'rogUE' is displayed.

bAtch 100

On selecting rogue mode, the default batch size will be shown. This can be changed by pressing the BATCH key.

2



Place the notes to be counted on the feed hopper.



If AUTO is selected, the machine will start counting automatically. If not, press START.

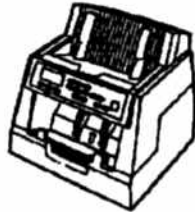
0 ro9

The machine uses the first note through as a reference, for the denomination and orientation.

3

dEn 3

The machine will stop if it detects a note of a different denomination and display 'dEn 3'.

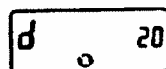
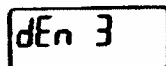
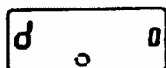


Leave notes in the stacker.

This means that the rogue denomination is the third note down in the stacker.

rogue mode

4



Leave the notes in the stacker.

Examine the rogue note to check that it is a different denomination. If it is, remove the rogue note and press CLEAR to deduct its value from the totals.

The display shows 'd 0' to indicate that the note has been valued at zero.

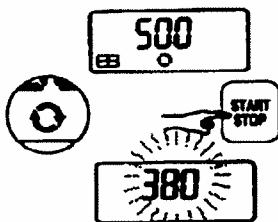
Press START again to resume the count.

If the machine could not recognise the note (it might be damaged), the same 'dEn 3' message will appear. If the note is the correct denomination press the START key, the display will show the value of the denomination being counted. eg. 'd 20'

Press START and the new total including that note is shown.

Press START again to resume the count.

5



When the batch total is reached, eg. 50 notes, the machine will stop. Remove the notes from the stacker.

If AUTO is selected, the machine will start counting automatically. If not, press START to continue the count.

If the batch is incomplete the total will flash.
Add more notes to the feeder to continue counting.

6



If no batch total is selected, at the end of the count, the display shows the total for the denomination counted.

When the notes are removed, the total remains on the display and is added to the stored sub and grand totals in memory.

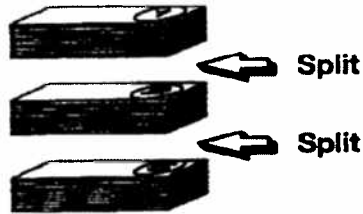
The totals can be interrogated as for mixed bundle value count. (see page 6.)

7



The totals can be displayed by pressing the TOTAL key as shown on page 30.

split mode



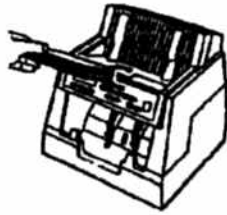
In split mode the machine will detect a split between denominations in a pre-sorted bundle of notes. eg. the break point between 10's and 20's. It should be used to separate denominations.

1



Press the Mode key until 'SPL' is shown on the display.

2



Place the notes to be counted on the feed hopper.



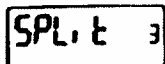
If AUTO is selected, the machine will start counting automatically. If not, press START.



The machine uses the first note through as a reference, for the denomination and orientation.

split mode

3



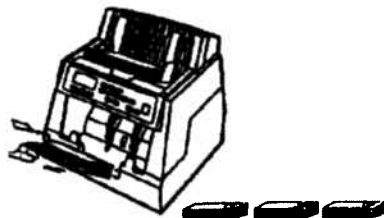
The machine stops and displays 'SPLit 3' this means that there is a change of denomination three notes down in the stacker tray.

Remove all the notes from the stacker

Separate the top three notes from the others.

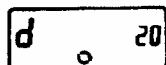
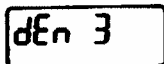
The machine now starts looking for the denomination which was on the top of the stack.

4



Place the separated denominations to one side in denominated bundles as each split occurs, and continue to count the new denomination.

5



If the machine could not recognise the note (it might be damaged), the same 'dEn 3' message will appear.

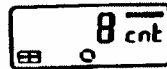
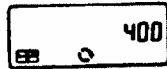
If the note is the correct denomination press the **START** key, the display will show the value of the denomination being counted. eg. 'd 20'

Press **START** and the new total including that note is shown.
Press **START** again to resume the count.

Basic operating functions

split mode

6



Press a denomination key to show the total value of that denomination counted.

This example shows that for the 50 denomination a total value of 400 was counted.

Press a second time to show the total piece count for the denomination.

This example shows that eight notes were counted.

7



If the CLEAR key is pressed the sub-total will flash.
Press the CLEAR key again to reset the sub-total (running total).

Press the START/STOP key to cancel this operation.

The Grand total will not be affected.

split mode

9



Printer Output

If a printer is connected to the machine, a printed copy of count information can be given.

Pressing BATCH before the notes are removed from the stacker will print the information from the last bundle by denomination.

Removing the notes from the stacker and then pressing the BATCH key will print the count information held as the sub-total or running total.

10



The grand total (total of all notes counted) can be shown by pressing the TOTAL key.

The grand total can be shown by denomination by pressing each denomination key or printed by pressing the BATCH key

If the clear key is pressed the grand total will flash. Press the CLEAR key again to reset the grand total.

Press the START/STOP key to allow the machine to count new note bundles.

Clearing the Grand Total will also clear the Sub-total.

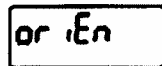
Basic operating functions

orientation mode



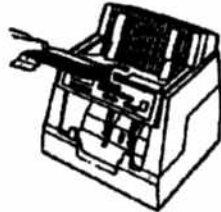
In orientation mode the machine detects notes that are incorrectly orientated in a bundle of single denomination notes.

1



Press the MODE key until 'OriEn' is displayed

2



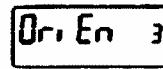
Place the notes to be counted on the feed hopper.



If AUTO is selected, the machine will start counting automatically. If not, press START.

The machine uses the first note through as a reference, for the denomination and orientation.

3



The machine will stop if it detects a differently orientated note and display 'OriEn 3' which indicates the third note down in the stacker is a change of orientation.

Remove all notes from the stacker (the machine will continue to count) . Turn the third note down around to the correct orientation.

Place the notes to one side. Press START to continue.

orientation mode**4**

If all three notes on top of the stack are of a different orientation, the machine will switch into looking for the new orientation.

5

dEn 3



d 0



If a rogue denomination is found within the pack, the machine will stop and indicate 'dEn 3' on the display.

Examine the third note down in the stacker.

If it is a different denomination remove the rogue note denomination and press CLEAR to deduct its value from the totals.

The display shows 'd 0' to indicate that the note has been valued at zero.

Press START and the new total without that note is shown.
Press START again to resume the count.

6

dEn 3



If the machine could not recognise the note (it might be damaged), the same 'dEn 3' message will appear.

If the note is the correct denomination press the START key, the display will show the value of the denomination being counted, eg. 'd 20'

Press START again to resume the count.

7

At the end of the count the value of the notes counted since the last emptying of the stacker will be displayed

The totals can be displayed by pressing the TOTAL key as shown on page 30.

Basic operating functions

facing mode



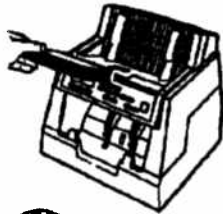
In facing mode the machine will detect incorrectly faced notes of a single denomination.

1



Press the MODE key until 'FACE' is displayed.

2



Place the notes to be counted on the feed hopper.



If AUTO is selected, the machine will start counting automatically. If not, press START.



The machine uses the first note through as a reference, for the denomination and orientation.

3



The machine will stop if it detects a differently faced note and display 'FACE 3' which indicates the third note down in the stacker is a change of face.



Remove all notes from the stacker (the machine will continue to count). Turn the third note down around to the correct face.

Place the notes to one side. Press START to continue.

facing mode

4

If all three notes on the top of the stack were of the different facing, the machine will switch into looking for the new facing.

5

dEn 3



d 0



If a rogue denomination is found within the pack, the machine will stop and indicate 'dEn 3' on the display.

Leave the notes in the stacker.

Examine the third note down in the stacker.

If it is a different denomination remove the rogue note and press CLEAR to deduct its value from the totals.

The display shows 'd 0' to indicate that the note has been valued at zero.

Press START and the new total without that note is shown.

Press START again to resume the count.

6

dEn 3

d 20



If the machine could not recognise the note (it might be damaged), the same 'dEn 3' message will appear.

If the note is the correct denomination press the START key, the display will show the value of the denomination being counted. eg. 'd 20'

Press START and the new total including that note is shown.

Press START again to resume the count.

7



At the end of the count the value of the notes counted since the last emptying of the stacker will be displayed

The totals can be displayed by pressing the TOTAL key as shown on page 30.

Basic operating functions

issue mode



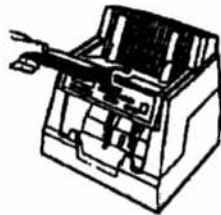
In issue mode the machine detects notes in a single denomination bundle that are of different issue, eg. old and new series.

1



Press the **MODE** key until 'ISSUE' is displayed.

2



Place the notes to be counted on the feed hopper.

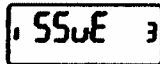


If **AUTO** is selected, the machine will start counting automatically. If not, press **START**.

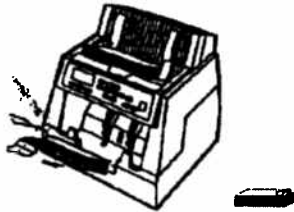


The machine uses the first note through as a reference, for the denomination and orientation.

3



The machine will stop if it detects a different issue note and display 'ISSUE 3' which indicates the third note down in the stacker is a change of issue.



Remove all notes from the stacker. Press **START** to continue.

Remove the notes of the different issue from the bundle and put all the notes to one side.

issue mode

4

If all three notes on the top of the stack were of the different issue, the machine will switch into looking for the different issue.

5

dEn 3

If a rogue denomination is found within the pack, the machine will stop and indicate 'dEn 3' on the display.



Examine the third note down in the stacker.

d 0



If it is a different denomination remove the rogue note denomination and press CLEAR to deduct its value from the totals. The display shows 'd 0' to indicate that the note has been valued at zero.

Press START and the new total without that note is shown. Press START again to resume the count.

6

dEn 3

If the machine could not recognise the note (it might be damaged), the same 'dEn 3' message will appear.



If the note is the correct denomination, press the START key, the display will show the value of the denomination being counted, eg. 'd 20'.

Press START and the new total including that note is shown. Press START again to resume the count.

7



At the end of the count the value of the notes counted since the last emptying of the stacker will be displayed

The totals can be displayed by pressing the TOTAL key as shown on page 30.

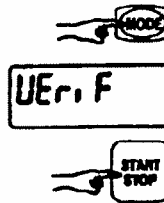
Basic Operating functions

verify mode

1

In verify mode a bundle of notes can be checked as a secondary operation without adding to the Sub or Grand totals.

2



Press the MODE key until VERF is displayed.

Press the START/STOP to confirm selection of the mode.

3



The machine will operate in the same way as VALUE mode, but VER will be shown on the right hand side of the display

4



The results of a verify count will always flash.

5



If a printer is connected press BATCH key to receive a print. This will have verify at the top and bottom of the printout.

It is not possible to access Sub or Grand totals in this mode.

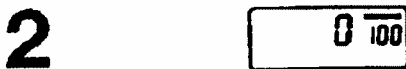
count / batch mode

Batch Mode

In count / batch mode the 2700VB is a standard currency counter, and will count the number of notes rather than value.



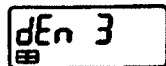
Press the **MODE** key until 'Count' is displayed.



The bar will indicate count by number of notes rather than value.



Pressing the **DEN** key will activate the note recognition detection. This will allow rogue notes to be detected in a single denomination bundle.



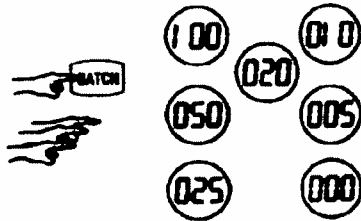
If a rogue denomination is detected, the machine will give a den message.



Press **START** to accept the note or remove note and refeed the bundle.

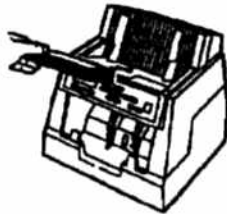
count / batch mode

4



Use the **BATCH** key to step through the preset batch sizes e.g. 100, 050, 025, 020, 010, 005 and 000 (which is the continuous count mode).

5



Place the notes to be counted onto the feed hopper.



If **AUTO** is selected, the machine will start counting automatically. If not, press **START**.

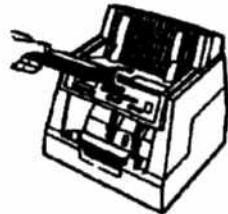
The machine will stop when the chosen batch size has been counted. Remove the notes from the stacker, the machine will count the next batch.

The counted batch is added to the non-value grand total and subtotal on every completed batch counted.

count / batch mode

Count Mode

6

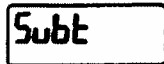


If there are not enough notes in the feed hopper to complete a batch, the total counted will flash on the count display to indicate this.

Without removing the notes in the stacker, add more notes to the feed hopper and the machine will continue to count.

If the stacker is emptied before a batch is complete, the batch count will be cancelled when the feed hopper is loaded. The count will revert to '0'.

7



At the end of the count the number of the notes counted since the last emptying of the stacker will be displayed

To interrogate the total for the whole count, press TOTAL and then Mode until 'Subt' appears.

Press TOTAL again to view total of the grand total.

8



If linked to a printer, press the BATCH key to print the count information.

Press the CLEAR key to reset any of the totals.

Press START/STOP to return to count mode.

Basic operating functions

count / batch mode

Count Mode



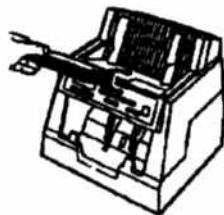
The 2700 is in batch/count mode if the display shows Count when the MODE key is pressed.

1



Select continuous count mode by pressing the BATCH key to step through the preset quantities until you reach 000.

2



Place the notes to be counted onto the feed hopper.

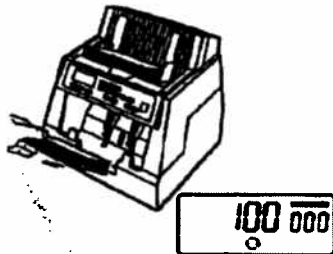


The machine will automatically start, if the AUTO is selected, or



you can choose to start it manually by pressing the START key.

3



If the number of notes to be counted is larger than the stacker limit, remove the notes from the stacker to continue the count.

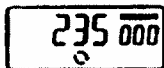
The machine will start automatically if AUTO is selected.

If the stacker limit is set at 100

count / batch mode

Count Mode

4

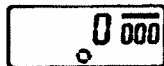


Every time a bundle is completed correctly, it is added to a running total which flashes automatically on the display.



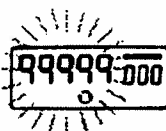
Remove notes from the stacker.

5

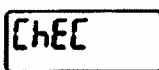


To clear the running total press the CLEAR key.

6



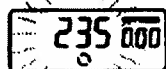
The maximum number of notes that can be counted is 9999. When this number is reached the machine will stop and flash 9999. Remove the notes from the stacker and press CLEAR to reset the total to 0.



If AUTO is selected and the machine stops because of a rFEED or ChEC message (repeat count), remove all the notes from the stacker and repeat the count pressing the START key to continue. (see Display Messages).



If AUTO is not selected and the machine stops because of a rFEED or ChEC message, remove the notes from the stacker, return to the feed hopper, press START to clear error and press START again to continue count. (see Display messages, page 42).



The count will be ignored and the display will revert to Zero or the running TOTAL.

totals

Sub-totals and Grand totals

1



There are separate totals which accumulate either the number of notes counted in non-value mode, or the value of the notes counted in value mode.

Subtotal, and grand total.



The grand total and subtotal are retained separately for non-value and value mode, and are not affected by switching and operating in the other mode. In value mode the totals break down into individual denomination totals which correspond to the values on the denomination key legends, and can be printed to a remote printer (see p.41). Press TOTAL to enter totals mode.

2



Subtotal

The subtotal accumulates the notes counted since the subtotal was last cleared.



To clear the subtotal, go into subtotal and press CLEAR, twice.

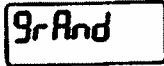
Clearing the subtotal also clears the bundle total, but does not affect the grand total.



Press TOTAL to select next total.

Sub-totals and Grand totals

3



Grand total
 The grand total accumulates the notes counted since the grand total was last cleared.
 To clear the grand total, go into grand total and press CLEAR.
 Clearing the grand total also clears the subtotal and bundle total.

4



Press START/STOP to exit totals mode.

5



Denomination totals
 In value mode, there are denomination totals which provide a breakdown of the grand totals, subtotals, and bundle totals for each denomination value marked on the denomination key legends.
 The denomination totals are only active in value mode and can be interrogated using the TOTAL key from any totals mode.

The denomination totals are retained on switching between non-value and back to value mode. This does not apply to the bundle total. The bundle total can only be interrogated directly using the denomination keys without entering the totals mode, while notes are still in the stacker.



Press the denomination once to give the total value by denomination,

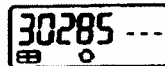
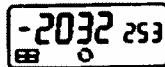


press again to give number of notes.

totals

Totals

1



Total display value overflow.

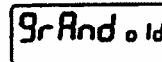
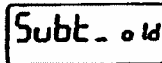
The grand total, subtotal, and bundle total values can each accumulate up to a 12 digit value.

If in totals mode the displayed total exceeds eight digits, the display will show "—" on the left hand side of the display of the lower seven digits.

Releasing and pressing the TOTAL again within 0.5 second will change the display to show the upper five digits with "—" on the right hand side of the display.

Each time the TOTAL key is released and pressed and held again within 0.5 seconds it will toggle the display between the upper and lower digits. The machine will return to the selected totals mode prompt when the TOTAL key has been released for more than 0.5 seconds.

2



Totals can be reviewed after a power failure.

The machine retains only subtotals and grand totals.

On pressing the TOTAL button, the machine will show sub-old or grand-old to show the totals are prior to power failure.

It is not possible to print out the old totals.

counterfeit detection

UV and Magnetic detection

1



These features, if fitted, will detect suspect counterfeits. For optimum performance, notes should be undamaged.

The CFA key will be used to turn the UV detector and/or Magnetic detector ON or OFF indicated by the respective symbols showing when they are ON.

2



MG option (US\$)

This will detect the presence of magnetic ink on notes, and has been designed specifically for US Dollars.

Machine speed defaults to 1500 notes per minute.

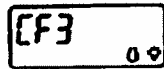
3



UV option

This will detect differences in the UV brightness of notes

4

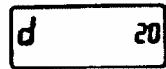


If during operation you see CF3 message displayed, suspect note(s) have been identified in the first three notes down in the stack of notes. This will cause the relevant symbol to flash (i.e. MG and/or UV).

counterfeit mode

UV and Magnetic detection

5



In any value mode, examine the note indicated. If it is a counterfeit, it can be removed, press CLEAR to deduct its value from the totals.

The display shows 'd 0' to indicate that the note has been valued at zero.

Press START again to resume the count.

If the note is a genuine one, press START, the display will show the value of the denomination being counted, eg 'd 20'.

Press START and the new total including that note is shown.

Press START again to resume the count.

6



In piece count mode, examine the suspect note indicated.

Either return the note to the stacker or replace with genuine note as required.

Press START to continue the count, or remove all notes from the stacker, returning them to the feeder and press START to re-commence the count from zero.

supervisor

Supervisor

- | | | |
|---|--|--|
| 1 | | <p>A range of operations are provided to enable you to alter the parameters of the machine.</p> |
| | | <p>Supervisor mode is selected by first pressing and holding the TOTAL key, while at the same time repeatedly pressing the MODE key to increment the supervisor mode number indicated on the display.</p> <p>Releasing the TOTAL key enters the supervisor mode displayed.</p> |
| | | <p>These modes include machine configuration, batch size, UV detection level, stacker limit and CMS settings.</p> |
| 2 | | <p>Supervisor mode 0. Is used for saving the machine configuration, see p36. It is also used to select the most common mode of operation.</p> |
| 3 | | <p>Supervisor mode 3. Is used to change the UV level which is indicated on the display. The START key is used to increment the UV level setting by one, see p38.</p> |
| 4 | | <p>Supervisor mode 6. Is used to change the stack limit which is indicated on the display. The START key is used to increment the stack limit in steps of ten counts. see p40</p> |
| 5 | | <p>Supervisor mode 9. Is used for selecting printer or PC connection
Printer-On
Printer-Off
Ready-CMS, see p41.</p> |
| 6 | | <p>Pressing the TOTAL key exits the above supervisor modes.</p> |

machine and mode configuration

Machine and mode configuration

1

This operation allows you to select the most common modes of operation

2



It also allows you to save your own setup configuration of the machine in memory, e.g. batch sizes, speed, counterfeit detectors, stacker limit etc, or to reset the configuration held in the memory, or to reset the factory defaults.



Supervisor mode is selected by first pressing and holding the TOTAL key, while at the same time pressing the MODE key, releasing the TOTAL key will enter mode 0.



The machine is ready to be configured



Press the MODE key to show the modes of operation.
Press the MODE key to step through each mode in turn.



Press the BATCH key to switch the mode on and off.



Press the START/STOP to return to set display



Pressing the BATCH key will offer the three following options:

machine and mode configuration

Machine and mode configuration

3

SAVE CFG

This saves the current machine setup in the memory. The machine will set itself to this configuration each time it is switched on.

4

RESET CFG

This reverts the machine to the configuration previously stored in the memory.

5

DEFAULT CFG

This sets up the machine to the factory default configuration. It will not change the machine set up that you have stored in memory.

6

START STOP

When you have chosen the required option, press the START key.

done

This will be verified with "done" on the display.

TOTAL

To exit this mode press the TOTAL key.

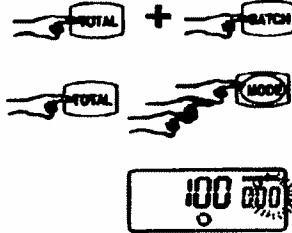
batch sizes

Changing batch sizes

1

In this mode you can change the preset batch sizes.

2



Press **TOTAL** and **BATCH** to enter this mode.

The batch bar will flash.

Press **BATCH** repeatedly to select the batch size that you wish to change. The right hand digit of the 3 figure number will flash.

Press **CLEAR** to reset the batch quantity to zero if required.

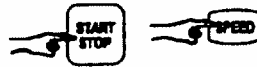
3



Press the **START** key repeatedly to choose the new right hand digit, between 0 and 9.



When the new digit is selected, press **SPEED** to move to the middle number. This number will now flash.



Select the new digit using the **START** key and move to the left hand digit by pressing the **SPEED** key. Update the 3rd digit by repeatedly pressing the **START** key, to scroll from 0 to 9.

4



While the batch bar is still flashing, pressing the **BATCH** key repeatedly will allow selection of another batch size to change.



Press **TOTAL** to store the new batch sizes in memory and exit the mode.

On exiting this mode, the batch sizes will automatically be stored in numerical order.

UV detection

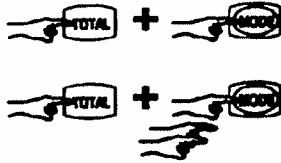
UV detection levels

1

In this mode you can set the machine's UV detection level.

To optimise performance you can choose a level between 1-9. 1 is the most sensitive setting.

2



Press and hold the TOTAL key and MODE key to enter supervisor mode, then step through to mode 3, by keeping the TOTAL key depressed and pressing the MODE key to step through the options.

SUP_ -3-

U_5 -3-

This shows factory default UV setting at level 5.

3



Press the START key to increment the UV setting in steps of one.



To exit this mode, press the TOTAL key.

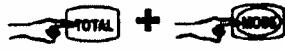
stacker limit

Stacker limit

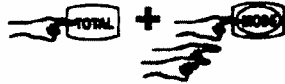
1

In this mode you set the stacker limit. This is the maximum number of notes that the machine will allow to be counted before the stacker needs emptying. The factory setting is 100 notes. The maximum number of notes which can be set is 200.

2



Press and hold the TOTAL key and MODE key to enter Supervisor mode,



then step through by keeping TOTAL key depressed and pressing the MODE key to step through the options until option 8 is shown.

SUP - 6 -

3

100 - 6 -

The count display will show the current stack limit.



The limit can be changed in multiples of ten by pressing the START key.

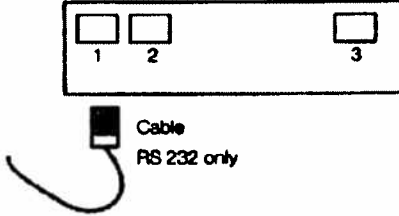


To exit this mode press the TOTAL key.

PC/printer

Printer/PC on/off line

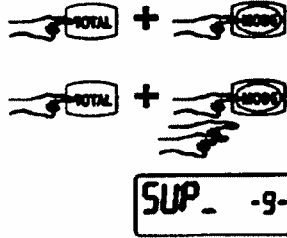
1



The On line /Off line switch will only operate on machines which are connected to a PC application or remote printer. The set up to printer or PC will have been done by your service engineer.

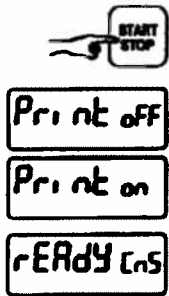
The machine should be linked to a PC or printer using communication port 1, on the back left of the machine.

2



Press and hold the TOTAL key and MODE key to enter Supervisor mode, then step through by keeping TOTAL key depressed and pressing the MODE key to step through the options until option 9 is shown.

3



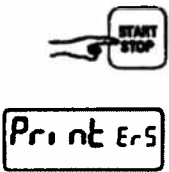
The display will show the current setting. Pressing the START key to select either

Print off – no connection to a printer.

Print on – Printer connection

Ready cms-PC connection

4



When printer connection is selected, to print a total, press the START key in any totals mode and the total will be sent to the remote printer.

This is indicated by 'PrintErS' on the display.

display messages

display	reason	solution
ChEC	The machine has stopped as a result of a badly damaged or degraded note.	Remove all notes from the stacker. Remove any notes with damage, tape or staples, and repeat the count.
rFEEd	The machine has stopped as a result of a note handling problem.	Remove all the notes from the stacker and repeat the count.
CLERn	Sensors in the hopper, stacker and/or track sensor obscured by dirt.	Clean sensors – see page 40
CLERr	Sensors in the hopper, stacker and/or track sensor obscured by notes or dirt.	Remove notes and/or clean sensors.
LRSt	A note from the previous bundle has been left in the transport.	Remove note and recommence count.
JR	Notes are jammed in the note transport.	Switch off the machine. Open the machine by pressing the release buttons. Remove the notes carefully. Firmly close the machine lid. Switch the machine on.
FEEd	Notes jammed in the feed hopper, stuck together or too thick for note thickness setting.	Remove notes from feed hopper. Ensure that they are unstuck before refeeding. After note thickness setting if necessary, see p5.
HALF	A half or folded note has been detected in the machine.	Remove all notes from the stacker. Remove all half notes or unfold folded notes. Repeat count.
9uLP	3 or more notes have passed through the machine together.	Remove all notes from the stacker. Remove suspect notes and repeat the count.
Lid	The machine has been opened – eg. for cleaning or jam removal.	When closing the lid, ensure that both release buttons are latched and press START to clear the message.

display messages

display	reason	solution
FAULT	A fault has been detected in the machine.	Switch off the machine and contact your agent's service engineer.
oUEr	Only appears in value mode if a higher value has been counted than can be displayed on the machine.	Make a note of totals stored in machine. Clear all totals and start again.
dEn 3	2,3...A different denomination note has been detected 2nd, 3rd... note down.	See page 8 section 3.
[F3	2,3...A different denomination note has been detected 2nd, 3rd... note down. The relevant symbol will flash (i.e. MG and/or UV).	See page 20 section 4.
dEn 3 1o2	Two of the top three notes are of different denominations, or suspect counterfeits.	Examine the 3rd note down first, if it is a rogue denomination or counterfeit and you wish to remove it, press CLEAR, 'd 0' is shown on the display. Press START to show new total excluding the note. Press START again.
[F3 1o2		If you wish to include the note in the count, press the START key. The display will show the value of the denomination, eg. 'd 20'. Press START twice to continue the count.
rERdy CnS	The machine is set up to work with a PC.	'dEn2 2o2' is displayed. This means that the 2nd note in the stacker should now be examined. Follow same procedure as for the 3rd note down. If an error condition still exists, examine the first note in the stacker Consult your systems package documentation.

factory settings

Specifications

Mains voltage	nominaly 110 to 240 VAC, 50/60 Hz
Power consumption	150W max.
Acoustic noise level	<78 dBA
Dimensions	
Width	285mm
Depth	285mm
Height	280mm
Weight	7kg
Document size range	170mm x 90mm maximum 100mm x 50mm minimum
Throughput rate	600-1400 notes per minute variable
Stacker capacity	200 notes
Feed hopper capacity	500 notes
LCD display	8 digits
Batch size settings	100, 50, 25, 20, 10, 5, 0, Variable Manually
Batch size default	100 notes

Routine maintenance

The various sensors in the machine may fail if they are obscured by dirt.

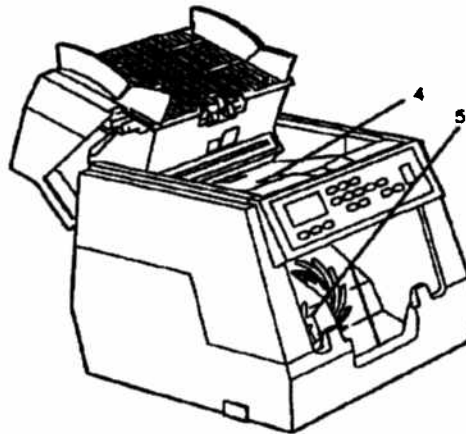
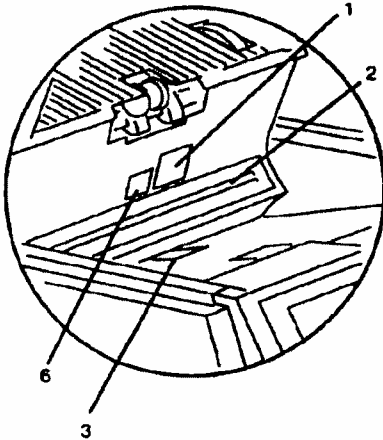


CAUTION
Unplug the machine before opening the lid.

Using a dry cloth, clean the hopper, stacker and track sensors. (1, 3, 4, 5 and 6).

The full width note recognition detector must be cleaned with extreme care to avoid damage. (position 2)

When closing the lid press evenly on both sides to ensure complete closure.



**PACKED LOOSE
WITH MANUAL**

8/26/99

ORIGINAL

Achieving optimum performance

Guide to setting up your banknote counter

To achieve optimum performance for your application, it is necessary to set up the note counter prior to use.

The machine must be switched OFF prior to setting.

1



Open the feedgap control by turning it upwards to the smallest setting.

2



Turn the rubber rollers until the ridged portion is uppermost.

3



Adjust the feedgap control downwards one click at a time, until some resistance is felt when the ridged portion of the rubber roller is moved gently backwards and forwards by hand.

4



Now adjust the feedgap control upwards two clicks (or one whole position on the indicator).

5

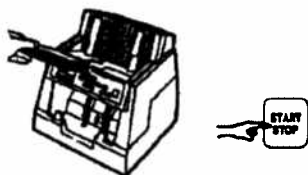


The counter is now ready to be used. Switch the machine on. Turn off any detectors which might be fitted by pressing CFA, Auto and /or SIZE/DEN keys.

6



Set the batch size to 100 by pressing the **BATCH** key until 100 appears on the display. Place a pack of notes on the hopper and press **START**. The machine will start to count.



If the machine hesitates when feeding notes or shows any other problems, adjust the feedgap to one click either side of the chosen position.

The note counter is now set to achieve optimum count performance.

**PACKED LOOSE
WITH MANUAL
8/26/99**

ORIGINAL

2700 quick start addendum

It is recommended that each machine operator thoroughly read this addendum before reviewing the 2700 User Guide (Reference: TP00620062 - ISS1). This addendum contains updated information that was not available at the time of user guide publication. After reading this addendum, review the user guide for a full understanding of the 2700 machine operation and care.

setting up

See Users guide, heading: setting up, beginning on page 6, and install the note guides. It is important to use the note guides for optimum machine performance.

switching on

Switch on the machine's on/off switch.

The machine powers up and completes a self test routine. When this is finished, the display first shows:

rEAdY cns

Notes: This message indicates the 2700 communication default is set to PC interface. The 2700 can be programmed to interface with a printer. See "Printer," beginning on page 2 of this addendum.

After a brief delay this message clears and the auto-start function is activated.

On power up the machine displays the mode in which it was powered down. This screen shows start-up in value count mode (see page 6 of user guide).

See "speed," on page 7 of the user guide, if reduced speed is needed.

stacker output limits

The 2700 stacker limit defaults to 100 notes.

A maximum capacity of 200 notes can be established using the Supervisor Mode. See "stacker limits" on page 4 of this addendum.

2000 0200AF
JANUARY 1974
PP/010

modes

All eight operating modes default to on. It may be more efficient to disable those modes which will not be used by the operator. See "select an operating mode" below.

select an operating mode

The 2700 comes equipped with eight operating modes: count, value, rogue, split, orient, face, issue, and verify.

All of these functions are accessed by cycling the MODE key. Processing time can be enhanced by enabling only those modes which are required. Modes not required can be disabled through the Supervisor Mode, option O.

1

Press and hold the TOTAL key, then press the MODE key until SET CFG is shown on the display.

Release both the MODE and TOTAL keys.

2

Press the MODE key again until the first operating mode is shown with the current mode status - on or off.

Pressing the BATCH key switches the displayed mode off or on.

3

Press the MODE key to advance to the next operating mode. Continue cycling the mode and batch keys until all the operating modes have been enabled or disabled.

4

When complete, press START. SET CFG is shown on the display. Press START again until done is shown.

Press TOTAL to return to the processing mode.

printer

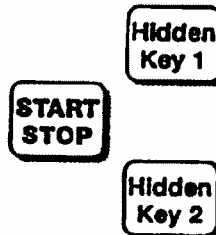
Most commonly available printers can be interfaced to the 2700 for the purpose of audit trail generation. The printer chosen must have a minimum of 2K memory buffer and have a column width of 40 characters.

Interfacing the printer is a three-step process utilizing a combination of diagnostic modes and supervisor modes. The printer and interface cable must be connected to the 2700 before beginning the setup procedures.

2700 quick start addendum

establish print defaults

Press and hold the **HIDDEN KEY 1** located in the upper right hand corner of the keypad, above and to the right of the **START** key:



While holding **HIDDEN KEY 1**, press the **DEN** key. A series of diagnostic information is displayed, followed by **dN 1** remaining solid on the display.

Cycle **HIDDEN KEY 1** until **dN 10** is shown on the display.

Press **START**. The current interface setting is displayed.

Press **BATCH** to choose between **PRINT** (printer interface) or **CNS** (PC interface).

Cycle the **START** key to establish all other communication parameters. Pressing the **BATCH** key or **HIDDEN KEY 1 & 2** enable the parameter options to be selected.

Parameters (START)	Options (BATCH) or (HIDDEN KEYS)
BAUD RATE	9600, 19200, 1200, 2400, 4800
POLLING	Cycle HIDDEN KEYS 1 and 2
STOP BIT	Cycle HIDDEN KEYS 1 and 2
PARITY	EVEN, NONE, ODD
DATA	7 or 8 (HIDDEN KEYS 1 and 2)

Once the communication parameters have been selected, cycle through all options returning to either **PRINT** or **CNS**.

Press the **DEN** key twice returning to the main processing display.

Power down the 2700 to retain the changes.

set printer on

With printer in place, enter the Supervisor Mode by pressing and holding the **TOTAL** key, then press the **MODE** key until **SUP 9** is shown on the display.

Release the both keys. **PRINT OFF** is shown on the display.

700 quick start addendum

Press the **START** key to change printer status from off to on.
Press the **TOTAL** key to exit the printer on/off mode.

enable auto-print

The user has a choice of having to press the **BATCH** key to initiate a print or have auto-printing active.

1

With the printer in place, enter the Supervisor Mode by pressing and holding the **TOTAL** key, then press the **MODE** key until **SUP 1** is shown on the display.

Release the both keys. The current print configuration is displayed, either **AUTO P OFF** or **ON**.

2

Press the **BATCH** key to change the auto-print status from off to on. Press the **START** key - **done** is displayed.

3

Press **TOTAL** to return to exit the auto-print mode and return to the main processing menu.

stacker limits

Enter the Supervisor Mode by pressing and holding the **TOTAL** key. Press the **MODE** key until **SUP 6** is shown on the display.

Release both keys. The current stacker limit is displayed.

The limit can be changed, in increments of 10 up to 200 notes, by pressing the **START** key.

Press the **TOTAL** key to exit this mode.

Save the setting as the default by selecting **SUPERVISOR MODE 0** and selecting **SET CFG, START, TOTAL**.



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826/95

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FAULT NOTIFICATION FORM

All De La Rue products are designed, built and tested to procedures which satisfy BS EN ISO 9001. This is your assurance of a consistent high standard of manufacture, and a product which meets the design aims.

To assist us to maintain this high standard and respond positively to reported faults we ask our customers to provide us with the following information should a machine be found to have an operating fault, either on receipt or installation.

QUESTIONNAIRE D'AVIS DE DEFAUT

Tous les produits de De La Rue sont conçus, construits et testés suivant les normes BS EN ISO 9001. Cela vous assure un haut niveau constant de fabrication et un produit qui répond aux buts de conception.

Afin de nous permettre de maintenir ce haut niveau et de réagir positivement lors que des défauts nous sont signalés nous prions nos clients de bien vouloir nous faire parvenir les informations ci-dessous si une machine ne fonctionne pas bien lors de la réception ou de l'installation.

FEHLERMELDEFORMULAR

Alle Produkte von De La Rue werden in Übereinstimmung mit Verfahren gemäß BS EN ISO 9001 konstruiert produziert und geprüft. Für Sie bedeutet dies eine Garantie für ein hohes Fertigungsniveau und ein Produkt, welches den Konstruktionszielen entspricht.

Um bei der Aufrechterhaltung dieses hohen Niveaus und der konstruktiven Zerkunftnahme von gemeldeten Fehlern behilflich zu sein möchten wir Sie um die folgenden Informationen bitten, falls Sie bei Erhalt oder der Installation einen unserer Produkte auf einen Funktionsfehler stoßen.

QUESTIONARIO DE NOTIFICACION DE FALLOS

Todos los productos de De La Rue se diseñan, construyen y prueban según procedimientos que conforman con la norma BS EN ISO 9001. Esta es su garantía de un constante alto nivel de fabricación, y de un producto que satisface los objetivos de diseño.

Para ayudarnos a mantener este alto nivel de fabricación y responder positivamente a los fallos que se nos comunican, pedimos a nuestros clientes que nos envíen la información siguiente si se descubre una avería de operación en una de las máquinas, ya sea al recibirla o durante la instalación.

Machine and Installation Details	Détails sur la machine et sur l'installation	Angaben zur Maschine und Installation	Detalles de la Máquina e Instalación
Name of Company installing Machine	Nom de la société qui a installé la machine	Name der Installationsfirma	Nombre de la Compañía que instaló la Máquina
Machine Type	Type de machine	Maschinentyp	Tipo de Máquina
Serial No.	Número de série	Seriennummer	No. de Serie

Fault Details	Détail sur le défaut	Fehlerangaben	Detalles de Fallos	
Packing Damaged?	Emballage abîmé?	Verpackung beschädigt?	Daños en el Empaquetado?	YES/NO
Fault Symptoms	Description du défaut	Fehlersymptome	Síntomas del Fallo	

Test Details	Détails des tests	Testangaben	Detalles de Prueba
Currency	Devise	Währung:	Moneda
Note Denominations	Coupures	Nennwerte:	Valores de los Billetes
Quality of Banknotes	Qualité des billets	Qualität der Noten	Calidad de los Billetes
New	Noufs	neu	Nuevos
Mixed - New & Used	Mélangés - Neufs & Usés	gemischt - neu & gebraucht	Mezcla - Nuevos y Usados
Used	Usés	gebraucht	Usados
Poor	Médiocres	schlecht	Pobre

Signature	Signature	Unterschrift	Firma
Name (Please Print)	Nom (En lettres d'imprimerie)	Name (Bitte Blockschrift)	Nombre (Por favor use impronta)
Date	Date	Datum	Fecha

DLR 357

If possible please telefax this form (both sides) using this as your front page and include below any additional information that might help our investigation.

Si possible envoyer par fax ce formulaire/document (les deux cotes) en utilisant celui-ci en-tête de document et inclure dessous toute autre information qui pourrait aider notre investigation.

Wenn möglich senden sie bitte dieses formular (beide seiten) per fax. nutzen sie dieses als deckblatt und fügen sie jede weitere Informationen, die unseren nachforschungen behilflich sein könnten, anbei.

Si es posible, por favor, envíen el impreso (ambos lados) por fax, utilizandolo como primera pagina e incluyendo cualquier tipo de informacion adicional que pudiera ayudarnos en nuestra investigacion.

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Additional Information

Autres informations

Zusätzliche Information

Informacion adicional

Thank you for your co-operation

En vous remerciant de votre co-operation

Vielen dank für ihre Kooperation

Gracias por su cooperacion