

Guide to Running SmartReceipt Printer Tests (3.8.1)

If you have a printer that isn't one of our supported models, you can use the Printer Tests option from the SmartReceipt GUI to gauge compatibility. The following pages describe the tests you can run, what the expected output is, and specific points that you should check.

Some tests, such as the printer version check, loadcache current cachemap, and loadcache test sheet are debugging tools and not necessary for testing conformance.

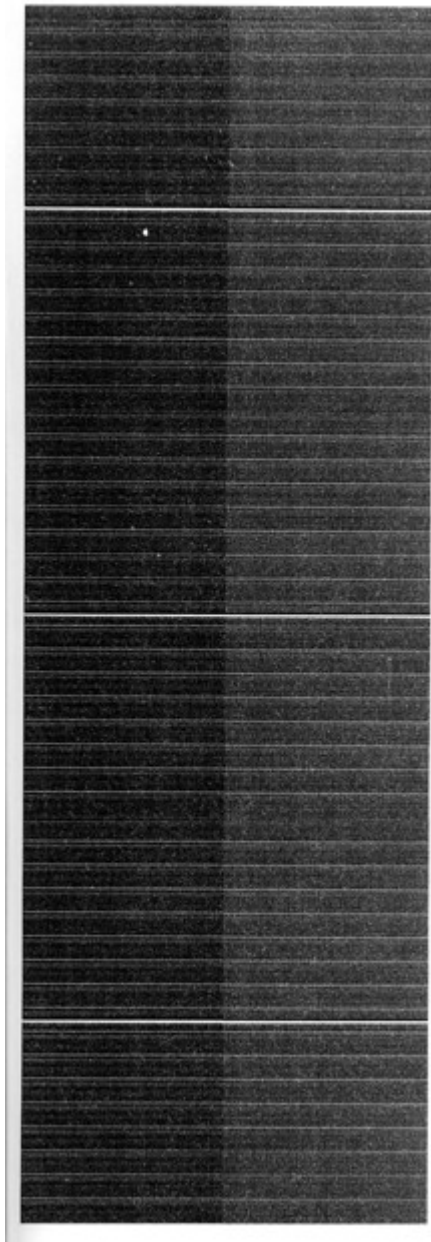
Formatting Test



This test will show whether your printer can handle basic formatting, such as bold, italic, and underline. If some things don't show up as described (say, italic prints as regular text), that's okay, as long as the left and right edges of the boxes are still straight.

If text overlaps vertically near the word “Big”, then you cannot use big text on this printer. If the box border is too wide or too short for the paper, first try another emulation (like NCR instead of Epson).

Flowcontrol Test

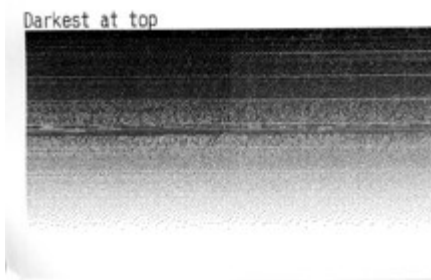


This test determines whether your hardware (including serial cable) supports flow control, necessary when there is too much data to fit in the printer's immediate print buffer.

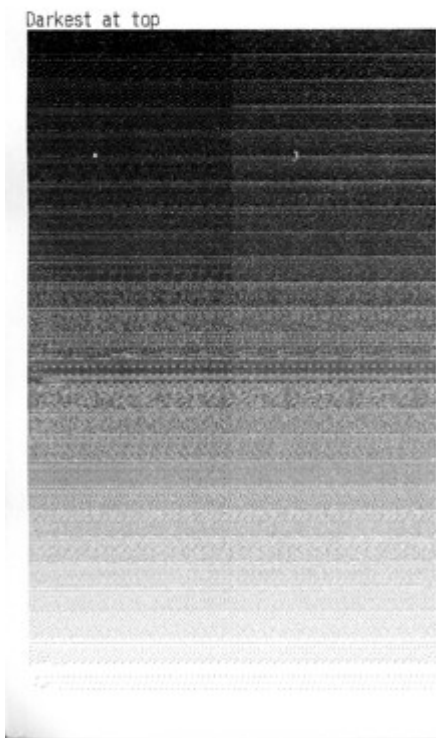
It should print three black squares with a thin white strip horizontally. The left and right halves may be slightly different shades (as in the example) or be offset vertically ever so slightly. This is normal for thermal printers.

If you see white streaks vertically, or it starts printing text characters after a few inches of black, then your flow control is not set up correctly. Check the flow control setting you used when running Printer Tests, and check your serial cable.

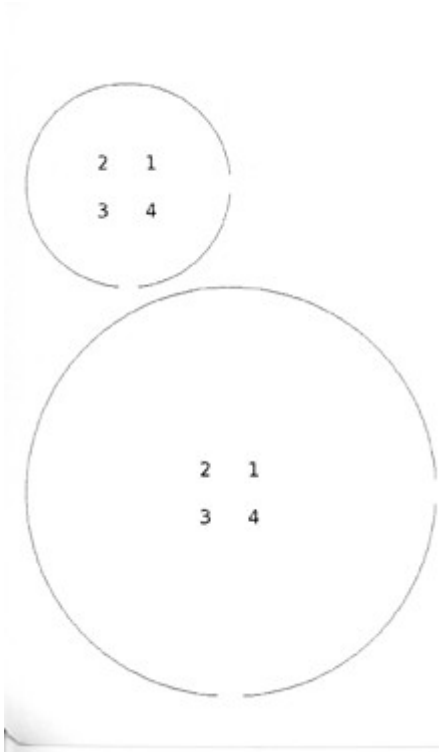
Grayscale Tests



These tests make sure that your printer can print several shades of gray well. Good grayscale support is essential for getting quality image prints. You should see at least 8 distinct shades of gray in the test images. If most of the test sheet is exceptionally dark, image quality may be affected. The short grayscale test is pictured on top, the long one on the bottom. During these tests, your printer's motor may make a noise that you don't usually hear. Verify that this noise is not overly annoying.



Orientation Test

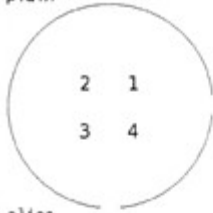


This test confirms that square images print the correct orientation. The image should have four numbers (they are trig quadrants, so the upper-right is 1, and they proceed counterclockwise). The right and bottom edges of the circles will be missing about 1/4”.

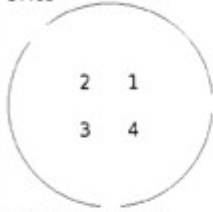
If you see garbled output that looks like random pixels, return to the flow control test.

Short Loadcache Test

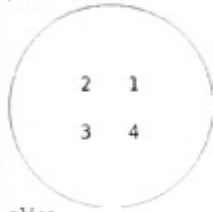
The first is a whole image 256x256,
the second has a single line slice in it.
On the fly:
plain



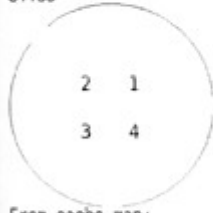
slice



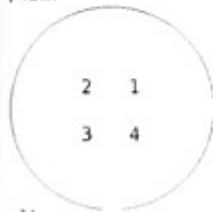
Before cache map:
plain



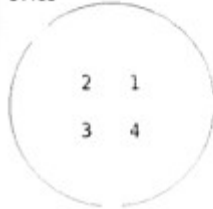
slice



From cache map:
plain



slice



These tests confirm that your printer supports saving images to flash memory for faster printing. The short test will load small circles, and the second of each pair will be missing a small segment in the upper-left (this is used to test support for embedded text in coupons, which is fully tested later). If the circle displays as a random pattern of dots, or you see lots of textual characters, double-check printer emulation selected and flow control settings.

Long Loadcache Test (below)

The long loadcache test features many rectangles with text in them. Verify that the “Image 123” matches the image name listed above it and that all images print properly. If your printer features too little ram, the last few image spots will be blank. If you see the letter “p” in place of an image, check your printer emulation settings. If you see random text, check your flow control and/or emulation settings. If your printer stops after the header, it might not be compatible with SmartReceipt.

The long loadcache test may take up to five minutes to complete at 9600 baud.

This tries to print images that will fill up the
cache and then some -- expect slowness randomly on a
couple of images somewhere (dict order). The current
time is 07/02 10:42:56 and there are 21 images

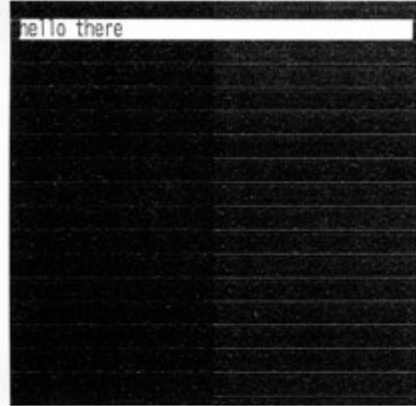
Before cache map:
Image 196608 <ReceiptImage: Image 196608 [<C
achedSlice: name: Image 196608-0, slot: 0>]>
07/02 10:42:56: Image 196608

Image 229376 <ReceiptImage: Image 229376 [<C
achedSlice: name: Image 229376-0, slot: 1>]>
07/02 10:42:56: Image 229376

Image 262144 <ReceiptImage: Image 262144 [<C
achedSlice: name: Image 262144-0, slot: 5>]>
07/02 10:42:56: Image 262144

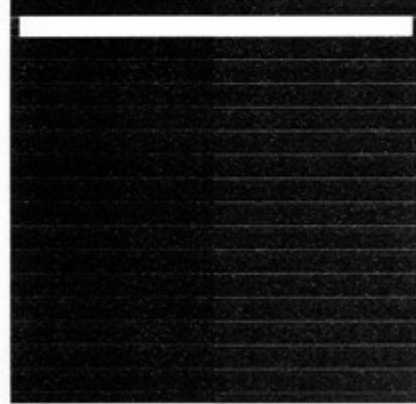
Dynamic Coupon Test

dynamic image:



This test checks that SmartReceipt knows how big the characters are in an embedded text box. If this test passes, you will see two black squares, and the right border will be straight, not broken. There should be virtually no gap between the text and the black box above and below it.

dynamic image without text:



Tag Images Test

StandardGrid-----			
Qty	Item	Price	Calories
1	Foo Item	○ \$1.00	5
2	Multi Item	○○ \$1.00	5
			100
% DAILY VALUE - 2500 CALORIES			11%
% DAILY VALUE - 2500 CALORIES			11%
NutritionOnlyGrid-----			
Qty	Item		Calories
1	Foo Item	○	5
2	Multi Item	○○	5
			100
% DAILY VALUE - 2500 CALORIES			11%
% DAILY VALUE - 2500 CALORIES			11%
PriceOnlyGrid-----			
Qty	Item	Price	
1	Foo Item	○ \$1.00	
2	Multi Item	○○ \$1.00	
BarePriceGrid-----			
1	Foo Item	○ \$1.00	
2	Multi Item	○○ \$1.00	

In this test, several grids will be printed. Verify that in all cases, the grid lines basically line up, prices line up, and that the gap between rows is not too great. A hairline gap is to be expected. You should see one circle on the top item, and two circles on the bottom item.



Grid Headers Test

Qty	Item	Price	Ra(Per)
1	Foo Item	\$1.00	5
2	Multi Item	\$1.00	5
			10%
% DAILY VALUE - 2500 CALORIES			11%
% DAILY VALUE - 2500 CALORIES			11%

Qty	Item	Price	Ra(Per)
1	Foo Item	\$1.00	5
2	Multi Item	\$1.00	5
			10%
% DAILY VALUE - 2500 CALORIES			11%
% DAILY VALUE - 2500 CALORIES			11%

Qty	Item	Price	Ra(Per)
1	Foo Item	\$1.00	5
2	Multi Item	\$1.00	5
			10%
% DAILY VALUE - 2500 CALORIES			11%
% DAILY VALUE - 2500 CALORIES			11%

Qty	Item	Price	Ra(Per)
1	Foo Item	\$1.00	5
2	Multi Item	\$1.00	5
			10%
% DAILY VALUE - 2500 CALORIES			11%
% DAILY VALUE - 2500 CALORIES			11%

This test confirms that your printer knows how to make vertical text, which is used for the headers above a grid. You should see a horizontal row of text, and a vertical row of text. Neither should appear cut off or missing. The bottoms should also approximately line up.

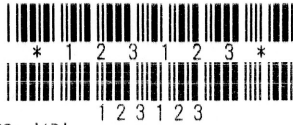
If your printer fails this text, then you must use a static image header, which means that changing nutrients or grid types is slightly more difficult. The daily value section should be bolded.

Status Responses

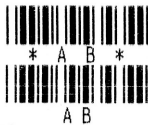
The test should report four lines of “ok”. If your printer reports “FAIL” for the two “10 04” tests, it cannot be used to report status such as “out of paper” to the point of sale without additional development work. If “not ask'd” fails, rerun the test a couple of times to make sure.

Barcode Test

```
code-39: '123123'
```



code-39: 'AB'



```
code-39: 'ABCD'
```



1 2

Number of correct answers	Control	Experimental
1	10	10
2	8	8
3	4	6
4	2	4

```
code-128c: '123412341234123412341234'
```



123412341234123412341234

123412341234123412341234

code-128c: '1234123412341234123412341234'



1234123412341234123412341234

1234123412341234123412341234

```
code-128c: '123412341234123412341234123412341234123412341234'
```



12341234123412341234123412341234

12341234123412341234123412341234

```
code-128c: '123412341234123412341234123412  
341234'
```



123412341234123412341234123412341234

123412341234123412341234123412341234

code-39: 'INVALID'

```
code 55: INVALID
BarcodeError: Character 'a' is invalid
INVALID
```

^ HERE

```
BarcodeError: Character 'a' is invalid
INVALID
```

^ HERE

codabar: 'A1234A'

```
BarcodeError: Can't render a native barcode
e, no common ratios
```



a 1 2 3 4 a

codabar: 'B12.45\$+/B'

```
BarcodeError: Can't render a native barcode  
e, no common ratios
```



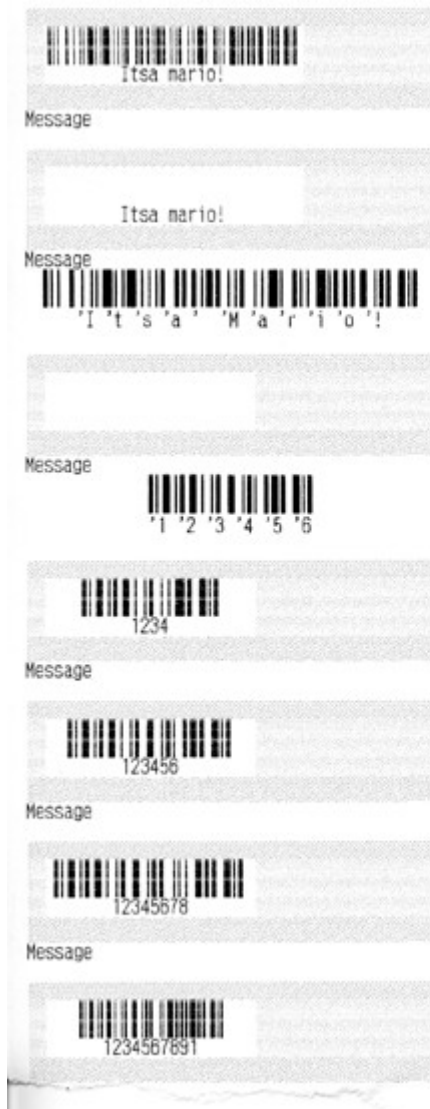
b 1 2 , 4 5 \$ + / b

The barcode test will print out pairs of barcodes in many different formats. Each member of the pair may be a slightly different pitch, but the overall look should be the same and both should be scannable. The barcode test sheet ends with several error messages – these are normal, and demonstrate how a barcode which is set incorrectly would print. To fully validate barcode support, the barcode formats you intend to use should be test-scanned.

If half the barcodes have gaps every quarter-inch vertically, your printer can only use native barcodes (which limits their use in coupons to “above” or “below” placement, and may limit the supported density).

Barcode Message Test

This tests support for barcodes inside messages. The background should be a light gray dither, with the barcode inside. Verify that on the widest “Too wide” message, the gray background is preserved.



Graphics Scaling Test

If you've had trouble with other image-related tests, run the Graphics Scaling Test to double-check whether your printer is altering images. Some printers, such as the NCR 7198 and Ithaca 8xxx series are known to do this in Epson emulation mode. The pitch of the bars should be constant – if every few bars, there is a wider or narrower one, then your printer exhibits this issue. Check to see if you can disable the emulation or use an Epson-licensed emulation firmware.

00



01



Codepage Test

Codepage 437

```
: 2 3 4 5 6 7 8 9 a b c d e f
00: 0 @ P * p Ç È Á
01: ! 1 A Q a q u e i
02: " 2 B R b r é ê ò
03: # 3 C S c s ä ö ú
04: $ 4 D T d t ä ö ñ
05: % 5 E U e u ä ö ñ
06: & 6 F V f v ä ö ñ
07: ' 7 G W g w ç ü
08: ( 8 H X h x é y z
09: ) 9 I Y i y è ò
0a: * : J Z j z è ò
0b: + ; K [ k { Y Ç
0c: , < L \ l | I È
0d: - = M ] n } i Y
0e: . > N ^ n " A R 4
0f: / ? O _ o A f x
```

This test matters primarily if you wish to use a non-ascii currency symbol (say, £, ¥ or €). This test prints the characters that your printer can print natively – verify that your character is included, and note its position.

Some printers don't support changing the codepage midstream and change it using a configuration utility or setup mode set with switches. If this is the case, cp437 and cp858 will display identically, and may actually be some other codepage.

Read the column first, then the row, so if you wanted to use the yen character as your currency symbol, it's in column 9 and row 0d, meaning so its hex position is 9d and you would store \x9d (four characters total) in the currency symbol field of the admin.

```
: 2 3 4 5 6 7 8 9 a b c d e f
00: 0 @ P * p Ç È Á
01: ! 1 A Q a q u e i
02: " 2 B R b r é ê ò
03: # 3 C S c s ä ö ú
04: $ 4 D T d t ä ö ñ
05: % 5 E U e u ä ö ñ
06: & 6 F V f v ä ö ñ
07: ' 7 G W g w ç ü
08: ( 8 H X h x é y z
09: ) 9 I Y i y è ò
0a: * : J Z j z è ò
0b: + ; K [ k { Y Ç
0c: , < L \ l | I È
0d: - = M ] n } i Y
0e: . > N ^ n " A R 4
0f: / ? O _ o A f x
```

If gridlines are missing on the grid tests, this test can help figure out why. On some older IBM printers, for example, the right side of the chart is almost completely empty.