QMS SC-100

User's Manual

(Doc. No 250-0201-E Rev. A)

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This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communication. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Warning

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

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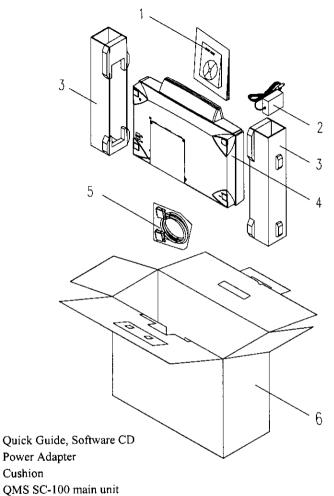
1. INTRODUCTION

Congratulations on your purchase of QMS SC-100. QMS SC-100, as the name suggests, is a scanner and a digital copier. Integrated with the module of scanner and copier, QMS SC-100 allows you to edit your image and produce a far better printing quality than a normal copy machine.

Introducing an innovative digital solution, QMS SC-100 produces better printing quality and is free maintenance compared with a traditional copy machine. Its high printing quality, free maintenance and affordability makes QMS SC-100 the best copier solution for office.

The following sections introduce the unpacking, hardware and software installation, the operation, and maintenance information to you. Please do take a few minutes to read through them to keep quality scanning result possible.

Figure 1-1 shows how the QMS SC-100 is packed. Please check all the items against your checklist contained in the box or against Figure 1-1. If there is any missing or damaged, please contact your nearest dealer immediately for the replacement.



- 5. QMS SC-100 Cable
- 6. Carton

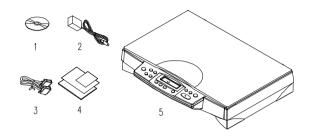
1. 2.

3.

4.

Figure 1-1 QMS SC-100 packing

Package Contents



- 1. Software CD
- 2. Power Adapter
- 3. QMS SC-100 Cable
- 4. Quick Installation Guide
- 5. QMS SC-100 main unit

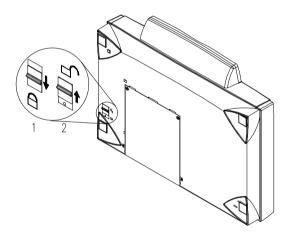
2. QMS SC-100 INSTALLATION

2.1 PRECAUTIONS

- Keep the QMS SC-100 out of direct sunlight. Direct exposure to the sun or excessive heat may cause damage to the unit.
- Do not install the QMS SC-100 in a humid or dusty place.
- Be sure to use the proper AC power source.
- Place the QMS SC-100 securely on an even, flat surface. Tilted or uneven surfaces may cause mechanical or paper-feeding problems.
- Retain the QMS SC-100 box and packing materials for shipping purposes.

2.2 UNLOCKING THE QMS SC-100

To protect the scanning head from damage during shipment, the QMS SC-100 is designed with a lock switch under the main unit. Therefore, before using the QMS SC-100, it is required to unlock QMS SC-100 by moving the lock switch to the *Use* position.(See Figure 2-1)



1. "Shipping" Position 2. "Use" Position

Figure 2-1 Unlocking the QMS SC-100

2.3 CONNECTING THE CABLE

2.3.1 CONNECTING QMS SC-100 TO WORK AS A COPIER

Connect the power cable and signal cable as shown below.

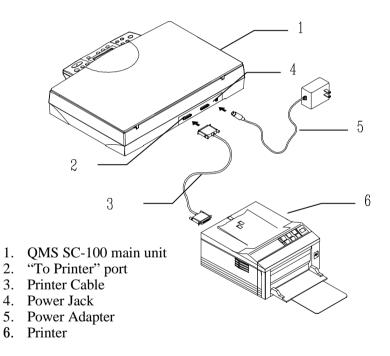
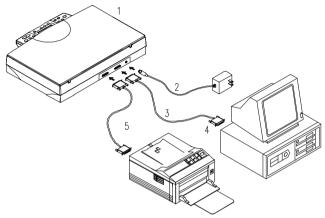


Figure 2-2 Connect QMS SC-100 to a printer

2.3.2 CONNECTING QMS SC-100 TO WORK AS A SCANNER

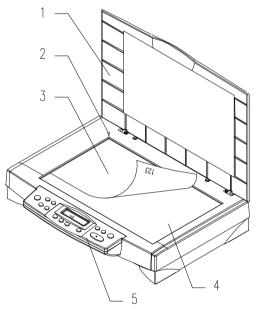


- 1. QMS SC-100 main unit
- 2. Power Adapter
- 3. QMS SC-100 Cable
- 4. PC Parallel Port
- 5. Printer Cable

Figure 2-3 QMS SC-100 Cable Connection

2.4 DOCUMENT PLACEMENT

As shown in Figure 2-3, place the document on the glass with the text facing away from you.



- 1. Document Cover
- 2. Home Position Mark
- 3. Document
- 4. Document Glass
- 5. Control Panel

Figure 2.4 Document Placement

3. QMS SC-100 DRIVER INSTALLATION

To run QMS SC-100 at optimum speed, the following minimum requirements are recommended:

- IBM compatible PC 386/486, Pentium or later;
- Microsoft Windows 3.1, Windows 95, Windows NT;
- One printer port available (enhanced parallel port recommended);
- Megabytes of available hard disk space for installation;
- Megabytes of RAM (16 Megabytes or higher recommended);
- A video graphics array (VGA) monitor;
- A Microsoft Windows-compatible pointing device (e.g., mouse);
- A CD ROM drive.

3.1 INSTALLATION PROCEDURE

Installation procedures of QMS SC-100 driver are as follows:

- 1. Start Windows 3.1 or Windows 95.
- 2. Insert software CD into your CD ROM drive.

In Windows 3.1 or higher

3. From the File Menu, choose RUN, type d:\driver\SC-100.exe (d represents the letter for your current CD-ROM drive). Click O.K.

In Windows 95 or Windows NT

- Press the Start button, choose RUN, type d:\driver\SC-100.exe (d: the CD-ROM drive in use), and then click O.K. (See Figure 3-1,3-2)
- 4. Follow the on-screen instructions to complete the installation.



Fig. 3.1

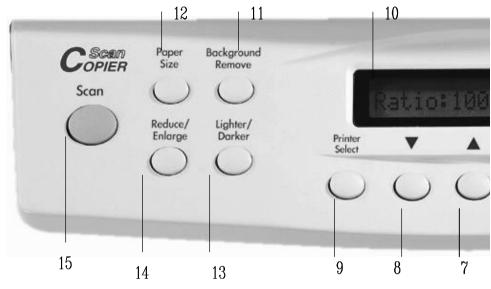


Fig. 3.2

3.2 UNINSTALL THE QMS SC-100 DRIVER

You can uninstall the QMS SC-100 driver by selecting Start>Programs>QMS SC-100 and double clicking on the *Uninstall* command from the QMS SC-100.

4. USING QMS SC-100 AS A COPIER

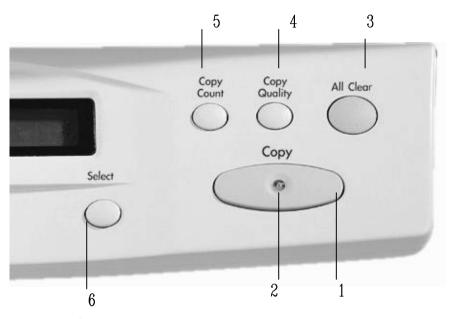


4.1 THE CONTROL PANEL

- 10. Message Display window: Display current settings.
- **11. Background Remove:** Set "Background Remove" on to print your document without the background color or off to print your document with the background color.
- **12.** Paper Size: Select your output paper size from A4, Letter, or Legal.
- 13. Lighter/Darker: Lighten or darken your image.
 Increase level of brightness or darkness by the (A) button.
 Decrease level of brightness or darkness by the (V) button.
- 14. Reduce/Enlarge: Reduce, enlarge or auto zoom your original document. Press to select the preset ratio: 100%, 115%, 122%, 141%, 200%, 86%, and 50%. Choose your desired ratio or adjust the ratio in 1% increment by the (▲) or (▼) button.

Auto zoom: Automatically scale your original document to fit your output paper.

15. Scan: Press to start the scanning-assistant application - Quick Selector and other application software.



- **1.** Copy: Press to start copy.
- **2. Power/Copy LED:** The LED indicator turns green when power is on and turns flashing during copying.
- 3. All Clear: Clear your current settings and return to the default settings.
- 4. Copy Quality: Select your Copy quality: Normal (300 dpi), or Quality (600 dpi).
- 5. Copy Count: Choose the number of copies from 1 to 99. Increase the value of the numeric entries by the (▲) button or decrease the value by the (▼) button.
- **6.** Select: Select your printer model. (Currently QMS SC-100 supports only PCL printer, therefore, as long as your printer has PCL emulation, it is not necessary to select printer model.)
- 7. A : Go to the previous item displayed in the Message Display window or increase the value of the numeric entries.
- 8. \mathbf{V} : Go to the next item displayed in the Message Display window or decrease the value of the numeric entries.
- **9. Printer Select:** Select your printer model. (Currently QMS SC-100 supports only PCL printer, therefore, as long as your printer has PCL emulation, it is not necessary to select printer model.)

Tips:

To use other settings than the one displayed in the Message Display window, simply repress the button of that setting to select other options. (For example, when you choose paper size with the Paper Size button, if the Message Display window shows A4 and you prefer Letter, you can just press the Paper Size button again to select it.)

Note:

- (1). An item message in the Message Display Windows ending with a "* " means the last setting.
- (2). The default settings are: Letter Size, Normal Print Quality, 100% ratio.

IMPORTANT!

PRINTER MEMORY

To make good use of QMS SC-100, it is recommended to install at least 1 MB of memory in your printer. If you want to print your document using Quality mode - 600 dpi as your Copy Quality, you need to add more RAM for your printer as using this feature requires more processing time and memory.

We strongly recommend you to refer to the following table to ensure a successful print out.

Copy Quality	Document Size	Min. Printer Memory
Normal	Letter	1 MB
	Legal Size	2 MB
Quality	Letter Size	4 MB
	Legal Size	5 MB

If there is not enough memory in your printer, you may probably encounter the following results:

- 1. The printer does not print.
- 2. The Printing quality is bad.

4.2 BEFROE MAKING COPIES

QMS SC-100 provides three paper sizes, A4, letter, and legal. Check or select the paper size to match your paper supply to ensure smooth operations.

To check or select paper size,

- Press the Paper Size button. The Message window displays "A4 *" (default). If your current paper supply is A4 size, you can skip the following steps. Otherwise, please do the following steps.
- 2. Repress the Paper Size button. The Message window displays "Letter".
 - If your current paper supply is letter size, please press the Select button. The Message window now displays "Letter *". This means you have successfully changed the default size to letter.
 - If legal size is your current paper supply, please repress the Paper Size button. The Message window displays "Legal ". Press the Select button to change the default size to Legal.

> Note:

Each time when you unplug QMS SC-100 to make copies, the QMS SC-100 automatically returns to the factory default setting. As a result, you may have to change the factory default setting each time when you power on the QMS SC-100.

4.3 MAKING SIMPLE COPIES

The Operating Steps:

- 1. Place your original face down on the document glass.
- 2. Press the Copy button. The Message window displays "Copy..." and the Ready LED is flashing.
- Within a few seconds, the copying is done. The Message window then displays "1 Copy @100%" and the Ready LED is now steadily on until next task.

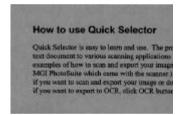
4.4 MAKING COPIES WITH COPY FEATURES

REMOVING ORIGINAL BACKGROUND

If your original comes with color background, you can remove the background to sharpen your text.

The Operating Steps

- 1. Place your document face down on the document glass.
- 2. Press the "Background remove" button. The Message window displays "Background remove on".
- 3. Press the Copy button. The printout shows the background is removed and the text become more clear and sharp.



Before "Background remove on"

How to use Quick Selector

Quick Selector is easy to learn and use. The protext document to various scanning applications is examples of how to scan and export your image MGI PhotoSuite which came with the scanner.) if you want to scan and export your image or doc if you want to scan and export your image or doc if you want to scan and export Soft hutton

After "Background remove on"

ENLARGING OR REDUCING YOUR ORIGINAL

Like a normal copier, QMS SC-100 also features auto enlargement/reduction function to resize your original.

The Operating Steps:

- 1. Place your document face down on the document glass.
- 2. Press the "Reduce/Enlarge" button, the Message window displays "Ratio:100%".
- Repress the button to see more options. For example, if you need 150% enlargement, select "141%" then press the "" button to increase the percentage to 150 in 1% increment.
- 4. Press the Copy button. And then the printout shows enlargement of 150% of your original.





Ratio:100%

Ratio: 150%

➤ Note:

- Another option to reduce your original is to firstly repeat the enlargement or reduction steps 1 to 3 and then press the "" button to decrease the percentage in 1% increment.
- The magnification rate is up to 400% while the reduction rate limits to 25%.

AUTO ZOOMING YOUR ORIGINAL

Auto Zoom is a convenient function to resize your original without giving additional thought to whether the magnification or reduction will be larger than the existing paper size.

The Operating Steps:

- 1. Repeat the above Enlargement Step 1 & 2.
- 2. Repress the "Enlarge/Reduce" button until the Message window displays "Auto Zoom".
- 3. Press the Copy button. The printout shows your original automatically scale to your paper size.



When she I loved looked every day Presh as a rose in Jane, I to her cottage bent my way, Beneath an evening moon. --- William Wordsworth

Before Auto Zoom (Ratio:100%)

After Auto Zoom

CHANGING YOUR COPY DENSITY

Copy density refers to the degree of darkness which the digital copier has reproduced. There are times when your original is unsatisfactorily darker or lighter. It is a great advantage using the density feature to compensate the unsatisfactorily original.

The Operating Steps:

- 1. Place your original face down on the document glass.
- 2. Press the "Lighter/Darker" button. The Message window displays the default degree of darkness.
- 3. Repress the "Lighter/Darker" button to select other level. Or you may press the "" to increase the level, press the """ button to decrease the level.
- 4. Press the Copy button. Your printout shows the darkness or brightness has been compensated.

CHOOSING YOUR COPY QUANTITY

The Operating Steps:

- 1. Place your original face down on the document glass.
- 2. The default copy count is 1. If you need to make 3 copies, for example, press the "Copy Count" button and the Message window displays "2 copy @100%".
- 3. Repress the "Copy Count" button and the Message Window displays "3 copy …".
- 4. Press the Copy button. After a few seconds, you have 3 copies from your printer.

≫ Note:

- Another option to change your copy quantity is to press the "" " button to increase the number or the "" " button to decrease the number.
- The maximum copy quantity is 99 at one time.

ENHANCING YOUR COPY QUALITY

QMS SC-100 provides "Quality mode" option to improve your copy quality particularly when your original comes with a photo in it. Quality mode allows your printout impressively reveals more image(photo) details.

The Operating Steps:

- 1. Place your document face down on the document glass.
- 2. Press the "Copy Quality" button. The Message window displays "Normal mode".
- 3. Repress the "Copy Quality" button and the Message window displays "Quality mode".
- 4. Press the Copy button. The copying begins processing with the Quality mode.

See the following photo/text reproduction between normal copier v.s. QMS SC-100 in quality mode.





Make copies with a normal copier

Make copies with a QMS SC-100 in quality mode

> Note:

To proceed copies using quality mode, make sure your printer has at least 4M memory as this requires more processing time.

MAKING COPIES OF A 3D OBJECT

The digital copy solution improves your copy reproduction significantly and even makes a 3D object copies amazingly clear.

The Operating Steps:

- 1. Place your 3D object on the document glass.
- 2. Press the "Copy Quality" button and the Message window displays "Normal mode".
- 3. Repress the "Copy Quality" and the Message window displays "Quality mode".
- 4. Press the Copy button. Your 3D object copy is done.



The 3D copy with a normal copier 100



The amazing 3D copy with QMS SC-

AUTOMATIC POWER SAVING

QMS SC-100 features automatic power saving without unplugging the power cable. If you have not used QMS SC-100 over an hour, the QMS SC-100 automatically turns into power saving status to save the power. At this moment, the Message window displays "Power Saving..." while the Ready LED is flashing.

To resume the ready status, press any one of the button on the Control Panel. The Message window displays "Warming up..." and then "1 Copy @100%", the ready status. The Ready LED now turns steadily on.

Tips:

• **About the "Select" button:** The major function of the "Select" button is to select the printer model. However, as long as your printer model has PCL emulation, it is not required to select the printer model - to touch the "Select" button.

• About the default settings: The default settings can be easily recognized by the ending "*" mark when the setting is displayed in the Message display window. It is OK yet not recommended if you want to change the default setting. To change the factory default setting, simply press the "Select" button after your desired setting is shown in the Message display window. After one minute, the setting will be automatically reverted to the factory default setting.

5. SCANNER OPERATION & DOCUMENT PRINTING

Scanning Images from within an Application (TWAIN)

- 1. Open your application and choose *Select Source* from the File menu. If the *Select Source* menu options are not available from the File menu, see the user guide of your application to learn how the TWAIN link is used.
- 2. A dialog box appears containing the different TWAIN sources that you can choose from to bring an image into your application.
- 3. Select QMS SC-100 /32 VX.xx as the source.

OUTCES: (MS SC-100/16 VXxx	OK
QMS SC-100/32 VXxx	Cancel

When you have used the dialog box to select a different source, you will need to select *QMS SC-100* as the source again before you can reuse the QMS SC-100.

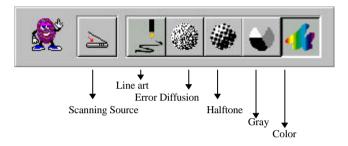
- 5. Place the image to be scanned face down on the glass.
- 6. From the File menu, select *Acquire*.
- 7. The TWAIN user interface will pop up on the screen. Click on the *Preview* or *Scan* button to get the image.

The TWAIN user interface:

450ca Eey 74.00	h +1+2+3+4+5+6+7+8+
Con Area: <inch> Left:1.7 Width:5.0 Top:0.0 Height:7.0 Image Size: 1015.73K</inch>	

5.1 IMAGE TYPE

The QMS SC-100 provides five image types as explain in below:



Scanning Source

Two scanning sources are provided- flatbed as well as transparency.

Line art

Line art presents the image in black and white only and there are no intermediate shades of gray in between.

Halftone

In addition to the black and white display, Halftone can present a somehow gray shade of image by using different size of dots.

Error Diffusion

While taking up but a minimum storage space, error diffusion gives good image texture and excellent image details. Gray (Internal 1024 levels of gray scale)

10-bit Gray presents a 1024 shades of gray in an image.

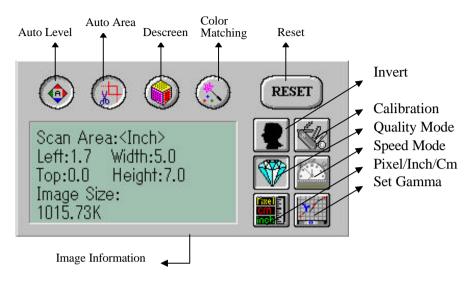
Color (Internal one billion colors)

The 30-bit True Color presents give much more tonal range and details in a color image.

5.2 SCANNING PARAMETERS & IMAGE CONTROL



- **Resolution:** The number of dpi (dots per inch) that the QMS SC-100 uses for a *scan*. Usually the greater the number, the higher the resolution. Yet up to a certain level, the resolution will not be visually increased but the disk space will be increased.
- **Brightness:** Adjusts the lightness or darkness of an image. The higher the value, the brighter the image.
- **Contrast:** Adjusts the range between the darkest and the lightest shades in the image. The higher the contrast, the bigger the different gray scales.



- Auto Level: Optimizes the scanned image.
- Auto Area: Automatically sets the whole document as the scan area, no matter what its size.
- **Descreen:** Eliminates the Moire patterns commonly found in printed matter.



Before descreen



After descreen

Color Matching:

Adjusts the color quality of the image to make it close to the original. This function uses default parameters to adjust the image.

Reset: Resets the scanning parameters you set.

- **Invert:** The invert command reverses the brightness and the color in the image. For color images, each pixel will be changed into its complementary color at the command of *Invert*.
- **Calibration:** Defines *Brightness* for the QMS SC-100. Users are recommended to calibrate the light source if the scanned image looks undesirable or comes out to be too dark.

Quality/Speed Mode:

Users can select the mode to perform scanning according to their own need. Select quality mode scanning if your emphasis is on the quality of the scanned image. Or you can select speed mode scanning if you want to speed up the scanning process.

Pixel/Inch/Cm:

Represents the different measuring systems to be used in each scan.

Set Gamma: Adjusts the midtone of the image yet without losing details of the lightest and the darkest areas at the same time.

Image Information:

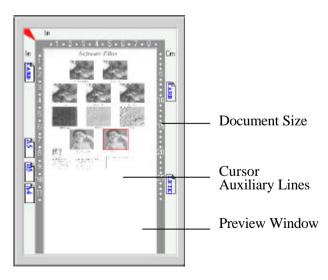
Gives related information of the scanned image.

5.3 SCANNING



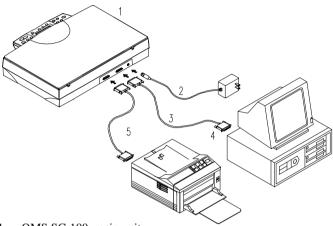
Preview:	Previews your image roughly and allocates the	
	area to be scanned.	
Scan:	Execute the Scans action.	
Exit:	Cancels the current job.	
Document Size:	To designate the size of your document, just click	
	on its icon on the margin of the preview window.	

As shown in the figure below, in the Preview window, you can define the area to be scanned by dragging the four cursor auxiliary lines.



5.4 PRINTING

Connect the printer cable as shown below.



- 1. QMS SC-100 main unit
- 2. Power Adapter
- 3. QMS SC-100 Cable
- 4. PC Parallel port
- 5. Printer Cable

Figure 5.1 QMS SC-100 Cable Connection

Caution:

- 1. <u>Be sure to power on the QMS SC-100 if you want to do</u> pass-through printing.
- 2. Do not scan and print at the same time.
- 3. If your PC does not support EPP mode or have pass-through compatibility problem, please contact your authorized local dealer for an EPP card or an additional interface card.

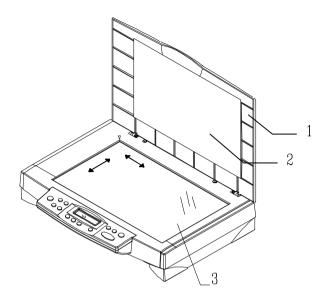
6. MAINTENANCE

Cleaning:

The QMS SC-100 is designed to be maintenance-free. However, it still needs to be cleaned occasionally to ensure optimum image quality and performance.

Procedure

- 1. Open the document cover as shown in Figure 6-1.
- 2. Dip a soft clean cloth with isopropyl alcohol (95%).
- 3. Gently wipe the document glass and the white sheet under the document cover to remove the dust or any toner particles.
- 4. Close the document cover. The QMS SC-100 is now ready for use.



- 1. Document Cover
- 2. White Sheet
- 3. Document Glass

Figure 6-1 Cleaning

7. TROUBLESHOOTING

If you have any operational problem, please check the following troubleshooting hints.

7.1 QUESTIONS AND ANSWERS

Question:	Why the scanned image always comes out to be too dark?
Answer:	 Modify the Gamma setting to 1.8 for your monitor and, when printing, set Gamma to 2.2 for your printer. Use the Brightness setting of the TWAIN user interface to get a brighter image.
Question:	The scanning speed of my QMS SC-100 is much slower than that of those installed at other computers. Can I speed it up?
Answer:	Set you PC printer port to the EPP mode from BIOS setting.
Question:	Why does my QMS SC-100 scan at a very low speed?
Answer:	If you have installed <i>Works for Windows</i> , it will install Window Printing System (WPS) in your WIN.INI file. This will take up the printer port time remarkably. You can remove the WPS from your WIN.INI file, as follows:

From:

[MS Text Converters]

MSWorksWin=Works for Windows 2.0,C:\WINDOWS\MSAPPS\TEXTCONV\worksdos.cnv,<u>wps</u> Works for Dos 2.0=Works for DOS 2.0 MSAPPS\TEXTCONV\workswin.con,<u>wps</u>

To:

[MS Text Converters]

MSWorksWin=Works for Windows 2.0,C:\WINDOWS\MSAPPS\TEXTCONV\worksdos.cnv Works for DOS 2.0=Works for DOS 2.0, C:\WINDOWS\MSAPPS\TEXTCONV\workswin.con

Question:	The printer does not print the documents. Why?	
Answer:	Pass-through printing may pose a problem for	
	some printers. It is suggested to add a second	
	printer card for printing purpose, or you may call	
	your authorized local dealer for further support.	

- **Question:** Does it take long for the QMS SC-100 to initialize?
- Answer: If your printer port supports SPP mode only, it takes about two minutes for the QMS SC-100 to initialize. If your printer port supports EPP mode, the initialization speed is much faster, about 20 seconds.

Question:	Why sometimes pass-through printing does not work at all?
Answer:	It may be that you fail to power on the QMS SC-100. When doing pass-through printing, please be sure to power on the QMS SC-100. Else, without power, the QMS SC-100 can not transfer the printing data/signals to the printer.
Question:	Why my GDI printer does not work with the QMS SC-100?
Answer:	Disable the <i>Auto Scan</i> function in the application, then your printer will function in

normal working condition.

Ouestion: Why some parallel port devices and software's keypro do not work with the QMS SC-100? Answer: The QMS SC-100 do pass-through printing all right, but the pass-through printing may not work if you connect the parallel port with devices other than printer. Therefore, if you would like to connect some parallel port devices other than printer, please do not connect them to the same parallel port that the QMS SC-100 currently uses. It is suggested to use other parallel ports to connect these devices or keypro. For instance, you can connect the QMS SC-100 to LPT1, and connect other parallel port devices to LPT2. Or you can add a data switch to avoid the problem.

7.2 TECHNICAL SERVICE

Technical support for QMS scanner is provided at the QMS Technical Assistance Center. Before you contact us, please prepare the following information for a quick solution:

- Scanner serial & revision number (located on the bottom of the scanner);
- Hardware configuration (e.g., your host CPU type, RAM size, free disk space, display card, interface card);
- The name and version of your scanning software application;
- The version of your scanner driver.

Please call us at:

QMS U.S. Technical	Phone: 334-633-4500
Support	Fax: 334-633-3716
	Compuserve (US): "go
	qmsprint"
QMS Service	Dispatch: 800-858-1597
	Information: 800-762-
	8894
QMS EMEA	
QMS Australia	(+61) 2-9901 3235
QMS France	(+33) 1-410 79 393
QMS Germany and	(+49) 89 63 02 670
Austria	
QMS Italy	(+39) 52-1231 998
QMS Sweden, Finland,	(+46) 8-600 01 30
Norway, and Denmark	
QMS Republic of South	(+27) 11-807 6957
Africa	

QMS United Kingdom and Ireland	(+44) 1784-442255
QMS Netherlands and all unlisted countries	(+31) 346-551333
Internet	http://www.qms.nl
QMS Japan	
General Contact	(+81)-3 3779-9600
Fax	(+81)-3 3779-9650
Internet	http://www.qmsj.co.jp

8. SPECIFICATIONS

All specifications are subject to change without notice.

Scanner Type:	Flatbed
Optical Resolution:	300 dpi x 600 dpi (H*V)
Copy Resolution:	600 dpi x 600 dpi
Maximum Resolution:	9600 dpi
Scanning Modes:	Black & White mode
	Halftone mode (64-step)
	Error diffusion
	Grayscale(10 bits)
	Color(30 bits)
Document Size	A4, B5, A5, business card
Interface:	Printer port (supports
	SPP/EPP for PC)
Power Source:	100Vac~240Vac,
	50~60Hz, external
Power Consumption:	18 watts
Dimensions: (WxDxH)	356 x 457 x 91 (mm)
Weight:	3.7kg (8.1 lbs)

EC Declaration of Conformity

According to EN45014

Manufacturer's Name: QMS, Inc.

Manufacturer's Address: QMS, Inc. 1 Magnum Pass Mobile, AL 36618 USA

declare that the product

Model Number :	QMS SC-100
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conforms to the following Product Specifications:

Emission:	EN 50081-1 (1992) EN 55022 (Class A) (Conducted Radiated) (1994)
Immunity:	EN 60555-2 (Harmonics) (1987) EN 60555-3 (Flicker) (1987) EN50082-1 (1992) IEC 1000-4-2 (ESD) (1995) IEC 1000-4-3 (RS) (1995) IEC 1000-4-4 (EFT/Burst) (1995) IEC 1000-4-5 (SURGE) (1995)
Date:	December 1995