
Samsung ER-5200M Series

Peripheral Installation Guide



All specifications are subject to change without notice.

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Introduction

About this Manual

This manual is a convenient one-stop source of hardware installation information for connecting the Samsung ER-5215M, ER-5240M or ER-5200M to a wide range of peripheral devices.

This manual is organized by type of device. Information included here includes:

- Specifications for the cable connection, and/or interface.
- Settings for the peripheral device, if necessary.
- Settings or program requirements for the ECR.

For additional information, consult the Samsung ER-5215M or Samsung 5200/5240M Operator's and Program Manual or Samsung ER-5200M Series Service Manual.

Every effort has been made to insure the accuracy of information presented here. At the time this manual was compiled, all devices documented here have been tested and perform as intended. However, since many of the peripherals are obtained from sources other than CCR, CCR does not guarantee any aspect of the performance of those peripheral devices, including their fitness for the intended application, or their availability. Information regarding features, specifications, availability, and/or warranties of peripherals should be directed to the supplier of the peripheral device. Refer to the warranty statement supplied with each CCR product for warranty information about products supplied by CCR.

Personal Computers/Polling

Overview

System Requirements

The minimum requirements for a PC connected to a Samsung ER-5200M Series ECR include:

- An IBM Compatible PC with an available serial port.
- Windows 95 or later.
- An EGA/VGA Monitor.
- A Hard disk drive.
- A Hayes compatible modem, if off site communications are supported and used. The modem should be capable of 9600 BAUD transmission.

Software requirements or other considerations may affect your PC selection.

Software

Although software is not the focus of this manual, any discussion of a working ECR/PC system is not complete without mention of communications software. For the *ER-5200M* series, two options are summarized below:

Function	Sam52M	SAM52M
	With Key	Without Key
Save/Load Programs	Yes	Yes
Multi Store	Yes	Yes
Download Bitmaps	Yes	Yes
Direct Polling	Yes	No
Edit Programs	Yes	No
Modem Communications	Yes	No
Auto Polling	Yes	No
Consolidated Store Report	Yes	No

Cable Configurations

You can configure cables yourself with the diagrams provided here, or you can order the appropriate cables from CCR Parts at +27 11 836 9512.

Direct Connection

Samsung DB-9M	PC DB-9F
DCD1	1DCD
RXD2	2RXD
TXD3	3TXD
DTR4	4DTR
GND5	5GND
DSR6	6DSR
RTS7	7RTS
CTS8	8CTS
VCC9	9RI

Samsung DB-9M	PC DB-25F
DCD1	1ChGND
RXD2	2TXD
TXD3	3RXD
DTR4	4RTS
GND5	5CTS
DSR6	6DSR
RTS7	7GND
CTS8	8DCD
VCC9	20DTR

Modem Connection

Samsung DB-9M	MODEM DB-25M
DCD1	1ChGND
RXD2	2TXD
TXD3	3RXD
DTR4	4RTS
GND5	5CTS
DSR6	6DSR
RTS7	7GND
CTS8	8DCD
VCC9	20DTR

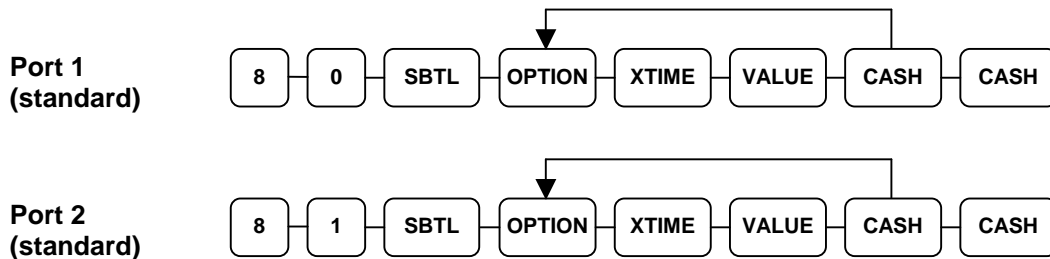
PC DB-9M	Modem DB-25M
DCD	1ChGND
RXD	2TXD
TXD	3RXD
DTR	4RTS
GND	5CTS
DSR	6DSR
RTS	7GND
CTS	8DCD
VCC	20DTR

Setting the ER-5200M RS-232C Ports

At the ER-5200, you must select 'PC' as the device that is attached to the RS-232C communications port. You must also select the baud rate that represents the speed of the connection or modem.

1. Turn the control lock to the **S** position.
2. Enter **8 0** (enter **8 1** to program the second port) and press the **SBTL** key.
3. Refer to the chart RS-232C option chart that follows and enter the number of the option (N1) you wish to program and press the **X/TIME** key.
4. Enter the value (N2) that represents your selection and press the **CASH** key.
5. Repeat from step 2 for any additional options you wish to program.
6. Press **CASH** to exit the program.

Repeat for another
Index



RS-232 Option Chart

Address	Option	Value	Selection
1	Baud Rate	0	9600 BPS
		1	1200 BPS
		2	2400 BPS
		3	4800 BPS
		4	19200 BPS
2	Parity	0	NONE
		1	ODD
		2	EVEN
3	Data Bits	0	8 BITS
		1	7 BITS
4	Stop Bits	0	1 BIT
		1	2 BIT

Address	Option	Value	Selection
5	Device Function	0	NONE
		1	PC
		2	SCALE
		3	Remote Journal (TVS Interface)
		4	Remote Printer
		5	EFT Device
		6	Scanner
		7	COIN
		9	Pole Display
6	Initial Feeding Line KP	0 - 20	
7	End Feeding Line KP	0 - 20	
8	Initial Feeding Line Slip	0 - 20	
9	Print Line On Guest Check	0 - 50	
10	Scale Type	0	NCI
		1	CAS
11	Printer Type	0	NONE
		1	SAMSUNG SRP-100
		2	SRP-270/SRP-500
		3	SRP-300
		4	SRP-350
		5	CITIZEN 3550
		6	CITIZEN 810
		7	CITIZEN 230
		8	EPSON TM T88-2
		9	EPSON U200
		10	EPSON U295
		11	EPSON U300
		12	EPSON U325
		13	EPSON U375
		14	STAR SP-200
		15	STAR SP-298
		16	STAR SP-300
		17	STAR TSP-200
12	Display Type	0	EPSON
		1	ICD

Note: If both ports are set to the same device, Port 1 runs first. For example, if you wish to use Port 2 for PC, Port 1 must be set to another device, or None.

Preparing the ER-5200M for Communicatons

The register must be ready for communications:

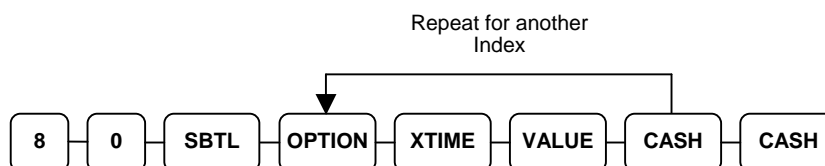
- Connect the register directly to the PC with the appropriate cable.
- The register power must be on.
- A clerk must be signed on.
- The register cannot be inside of a transaction.
- The key lock can be in any position.

Printers

Setting the ER-5200 RS-232C Port

At the ER-5200, you must select 'Remote Printer' (RP) as the device that is attached to the RS-232C communications port. You must also select the type of printer and if necessary, the feed lines before and after printing.

1. Turn the control lock to the **S** position.
2. Enter **8 0** and press the **SBTL** key.
3. Enter the option number and press the **X/TIME** key. (Refer to the RS-232C option chart that follows.)
4. Enter the value that represents your selection and press the **CASH** key.
5. Press **CASH** to exit the program.



6. The ECR receipt prints as shown below:

```
5.DEVICE FUNCTION      :RP
DATE 03/17/2003 MON    TIME 08:47

=====

1.BAUD RATE           :9,600
2.PARITY CHECK        :NONE
3.DATA BITS           : 8
4.STOP BITS           : 1
5.DEVICE FUNCTION      :RP
6.INITIAL FEED LINE ON KP:0
7.ENDING FEED LINE ON KP:7
8.INITIAL FEED LINE ON SLIP:0
9.PRINT LINE ON GUEST  :0
10.SCALE TYPE          : NCI
11.PRINTER             :STAR SP-298
12.POLE DISPLAY TYPE    :EPSON
CLERK 1                No.000026  00000
```

RS-232 Option Chart

Address	Option	Value	Selection
1	Baud Rate	0	9600 BPS
		1	1200 BPS
		2	2400 BPS
		3	4800 BPS
		4	19200 BPS
2	Parity	0	NONE
		1	ODD
		2	EVEN
3	Data Bits	0	8 BITS
		1	7 BITS
4	Stop Bits	0	1 BIT
		1	2 BIT
5	Device Function	0	NONE
		1	PC
		2	SCALE
		3	Remote Journal (TVS Interface)
		4	Remote Printer
		5	EFT Device
		6	Scanner
		7	COIN
		9	Pole Display
6	Initial Feeding Line KP	0 - 20	
7	End Feeding Line KP	0 - 20	
8	Initial Feeding Line Slip	0 - 20	
9	Print Line On Guest Check	0 - 50	
10	Scale Type	0	NCI
		1	CAS
11	Printer Type	0	NONE
		1	SAMSUNG SRP-100
		2	SRP-250
		3	SRP-300
		4	SRP-350
		5	CITIZEN 3550
		6	CITIZEN 810
		7	CITIZEN 230

Address	Option	Value	Selection
		8	EPSON TM T88-2
		9	EPSON U200
		10	EPSON U295
		11	EPSON U300
		12	EPSON U325
		13	EPSON U375
		14	STAR SP-200
		15	STAR SP-298
		16	STAR SP-300
		17	STAR TSP-200
12	Display Type	0	EPSON
		1	ICD

Cable Configuration

Samsung DB-9M		Printer DB-25M	
DCD	1	1	ChGND
RXD	2	2	TXD
TXD	3	3	RXD
DTR	4	4	RTS
GND	5	5	CTS
DSR	6	6	DSR
RTS	7	7	GND
CTS	8	8	DCD
VCC	9	20	DTR

Printers Supported & DIP Switch Settings

Samsung SRP100A/B (Dot Matrix Printer)

A set of 10 DIP switches is located on the under side of the printer. Make sure the printer is off and set the switches as described below.

ON										
OFF	X	X	X	X	X	X	X	X	X	X
	1	2	3	4	5	6	7	8	9	10

Citizen IDP 3550/3551 (Dot Matrix Printer)

Two sets of 8 DIP switches underneath the left front of the printer housing and may be accessed by removing the printer cover. Make sure the printer is off and set the switches as described below.

DSW1

ON	*	X	X	X	X			X		
OFF	*					X	X		X	X
	1	2	3	4	5	6	7	8	9	10

* Set switch 1 of DSW1 to **OFF** for the IDP 3550. Set to **ON** for the IDP 3551 (auto cut).

DSW2

ON	X	X	X	X	X	X				
OFF							X	X		
	1	2	3	4	5	6	7	8		

Star SP200 (Dot Matrix Printer)

A set of 10 DIP switches is located under the ROM cover located to the left of the connector on the under side of the printer. Make sure the printer is off and set the switches as described below.

ON	X	X	X	X	X	X	X	X	X	X
OFF										
	1	2	3	4	5	6	7	8	9	10

Epson TM-U300 (Dot Matrix Printer)

A set of 10 DIP switches are located on the under side of the printer. Make sure the printer is off and set the switches as described below.

ON										X
OFF	X	X	X	X	X	X	X	X	X	
	1	2	3	4	5	6	7	8	9	10

Epson TM-U200 (Dot Matrix Printer)

Two sets of DIP switches (DS1 has 8 switches; DS2 has 4 switches) are located under an access cover on the under side of the printer. (Remove the access cover with the single screw.) Make sure the printer is off and set the switches as described below.

DSW1

ON								
OFF	X	X	X	X	X	X	X	X
	1	2	3	4	5	6	7	8

DSW2

ON				
OFF	X	X	X	X
	1	2	3	4

Epson TM-295 (Slip Printer)

A set of 10 DIP switches are located on the under side of the printer. Make sure the printer is off and set the switches as described below:

ON										
OFF	X	X	X	X	X	X	X	X	X	X
	1	2	3	4	5	6	7	8	9	10

CBM 810 (Slip Printer)

A set of 10 DIP switches are located at the rear of the printer. Make sure the printer is off and set the switches as described below:

ON										
OFF	X	X	X	X	X	X	X	X	X	X
	1	2	3	4	5	6	7	8	9	10

Epson TM-T88 (Thermal Printer)

Two sets of 8 DIP switches are located under the DIP switch access cover located on the under side of the printer. Make sure the printer is off and set the switches as described below.

DSW1

ON							X	
OFF	X	X	X	X	X	X		X
	1	2	3	4	5	6	7	8

DSW2

ON								
OFF	X	X	X	X	X	X	X	X
	1	2	3	4	5	6	7	8

Citizen CBM 230/231 (Thermal Printers)

Four sets of DIP switches are located under the DIP switch cover. (Lift the printer cover and remove the screw that secures the right paper roll holder/DIP switch cover.) Make sure the printer is off and set the switches as described below.

DS1

ON	*							
OFF	*	X	X	X	X	X	X	
	1	2	3	4	5	6	7	8

DS3

X	X	X	X
1	2	3	4

* Set switch 1 of DS1 to **OFF** for the CBM 230. Set to **ON** for the CBM 231 (auto cut).

DS2

ON	X							
OFF		X	X	X	X	X	X	X
	1	2	3	4	5	6	7	8

DS4

	X	X	
X			X
1	2	3	4

Samsung SRP-270

Two sets of 8 DIP switches underneath the access panel on the bottom of the printer cabinet. Make sure the printer is off and set the switches as described below. SW1, switch #3 must be on to activate the autocutter.

SW1	ON			X				
	OFF	X	X		X	X	X	X
		1	2	3	4	5	6	7

SW2	ON							
	OFF	X	X	X	X	X	X	X
		1	2	3	4	5	6	7

Samsung SRP-350

Two sets of 8 DIP switches underneath the access panel on the bottom of the printer cabinet. Make sure the printer is off and set the switches as described below. These settings reflect 9600 BAUD. If you wish 19,200 BAUD, set all switches in DSW1 to OFF.

DSW1

ON							X	
OFF	X	X	X	X	X	X		X
	1	2	3	4	5	6	7	8

DSW2

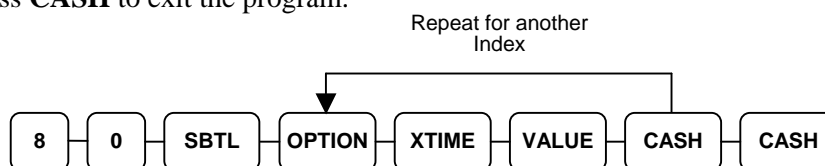
ON								
OFF	X	X	X	X	X	X	X	X
	1	2	3	4	5	6	7	8

Scales

Setting the ER-5200 RS-232C Port

At the ER-5200, you must select 'Scale' as the device that is attached to the RS-232C communications port. You must also set the parity check, data bits, and stop bits to **Even, 7,** and **0** respectively.

1. Turn the control lock to the **S** position.
2. Enter **8 0** and press the **SBTL** key.
3. Enter the option number and press the **X/TIME** key. (Refer to the RS-232C option chart that follows.)
4. Enter the value that represents your selection and press the **CASH** key.
5. Press **CASH** to exit the program.



6. The ECR receipt prints as shown below:

```
2.PARITY CHECK   :EVEN
3.DATA BITS      : 7
4.STOP BITS      : 0
5.DEVICE FUNCTION :SCL
DATE 03/17/2003 MON   TIME 08:47

=====

1.BAUD RATE      :9,600
2.PARITY CHECK   :EVEN
3.DATA BITS      : 7
4.STOP BITS      : 0
5.DEVICE FUNCTION :SCL
6.INITIAL FEED LINE ON KP:0
7.ENDING FEED LINE ON KP:7
8.INITIAL FEED LINE ON SLIP:0
9.PRINT LINE ON GUEST :0
10.SCALE TYPE     : NCI
11.PRINTER :STAR SP-298
12.POLE DISPLAY TYPE :EPSON
CLERK 1          No.000026 00000
```

RS-232 Option Chart

Address	Option	Value	Selection
1	Baud Rate	0	9600 BPS
		1	1200 BPS
		2	2400 BPS
		3	4800 BPS
		4	19200 BPS
2	Parity	0	NONE
		1	ODD
		2	EVEN
3	Data Bits	0	8 BITS
		1	7 BITS
4	Stop Bits	0	1 BIT
		1	2 BIT
5	Device Function	0	NONE
		1	PC
		2	SCALE
		3	Remote Journal (TVS Interface)
		4	Remote Printer
		5	EFT Device
		6	Scanner
		7	COIN
		9	Pole Display
6	Initial Feeding Line KP	0 - 20	
7	End Feeding Line KP	0 - 20	
8	Initial Feeding Line Slip	0 - 20	
9	Print Line On Guest Check	0 - 50	
10	Scale Type	0	NCI
		1	CAS
11	Printer Type	0	NONE
		1	SAMSUNG SRP-100
		2	SRP-250
		3	SRP-300
		4	SRP-350
		5	CITIZEN 3550
		6	CITIZEN 810
		7	CITIZEN 230

Address	Option	Value	Selection
		8	EPSON TM T88-2
		9	EPSON U200
		10	EPSON U295
		11	EPSON U300
		12	EPSON U325
		13	EPSON U375
		14	STAR SP-200
		15	STAR SP-298
		16	STAR SP-300
		17	STAR TSP-200
12	Display Type	0	EPSON
		1	ICD

Scale Settings

When ordering CAS or NCI scales, be sure to specify the make and model of the register you intend to interface. If the out of box setting do not work with your ECR, call CCR product support for assistance.

Cable Configurations

NCI 6710/6720

Samsung DB-9M		NCI 6710/6720 DB-15M	
DCD	1	1	RXD
RXD	2	2	TXD
TXD	3	3	GND
DTR	4	4	
GND	5	5	
DSR	6	6	
RTS	7	7	
CTS	8	8	
Shield	FR		

Samsung DB-9M		NCI 6710/6720 DB-9	
DCD	1	1	
RXD	2	2	TXD
TXD	3	3	RXD
DTR	4	4	
GND	5	5	GND
DSR	6	6	
RTS	7	7	
CTS	8	8	
Shield	FR		

CAS PD-1

Samsung DB-9M		CAS PD-1 DB-25M	
DCD	1	1	
RXD	2	2	
TXD	3	3	
DTR	4	4	
GND	5	5	TXD
DSR	6	6	RXD
RTS	7	7	
CTS	8	8	
		23	SG. GND

NCI 4100

Samsung DB-9M		NCI 4100 DB-9M	
DCD	1	1	GND
RXD	2	2	
TXD	3	3	TXD
DTR	4	4	
GND	5	5	
DSR	6	6	
RTS	7	7	
CTS	8	8	
		9	RXD

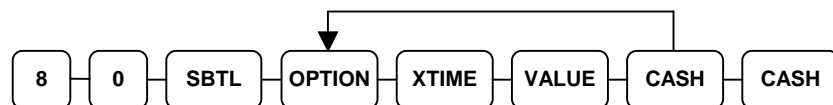
Scanners

Setting the ER-5200 RS-232C Port

At the ER-5200, you must select 'Scanner' as the device that is attached to the RS-232C communications port. You must also set the parity check, data bits, and stop bits to **Even**, **7**, and **0** respectively.

1. Turn the control lock to the **S** position.
2. Enter **8 0** and press the **SBTL** key.
3. Enter the option number and press the **X/TIME** key. (Refer to the RS-232C option chart that follows.)
4. Enter the value that represents your selection and press the **CASH** key.
5. Press **CASH** to exit the program.

Repeat for another
Index



6. The ECR receipt prints as shown below:

```
5.DEVICE FUNCTION      :SCAN
DATE 03/17/2003 MON    TIME 08:47

=====

1.BAUD RATE           :9,600
2.PARITY CHECK        :EVEN
3.DATA BITS           : 7
4.STOP BITS           : 0
5.DEVICE FUNCTION      :SCAN
6.INITIAL FEED LINE ON KP:0
7.ENDING FEED LINE ON KP:7
8.INITIAL FEED LINE ON SLIP:0
9.PRINT LINE ON GUEST  :0
10.SCALE TYPE          : NCI
11.PRINTER :STAR SP-298
12.POLE DISPLAY TYPE   :EPSON
CLERK 1                No.000026  00000
```

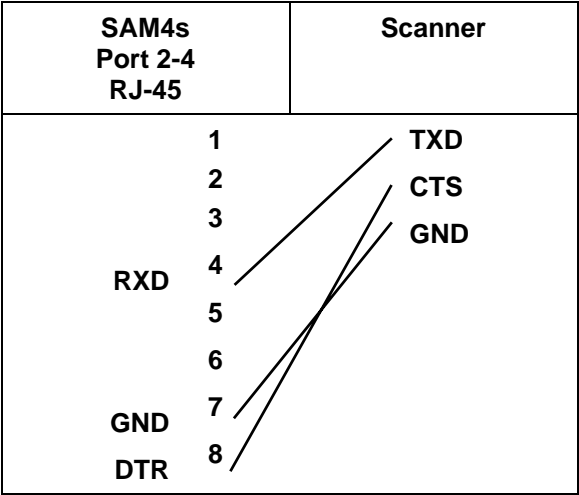
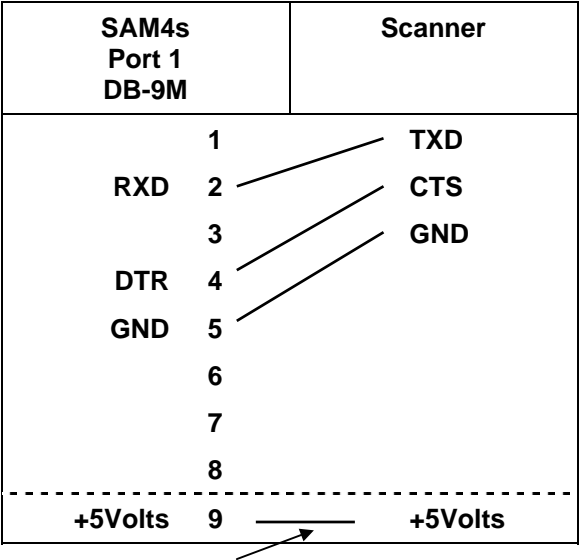
RS-232 Option Chart

Address	Option	Value	Selection
1	Baud Rate	0	9600 BPS
		1	1200 BPS
		2	2400 BPS
		3	4800 BPS
		4	19200 BPS
2	Parity	0	NONE
		1	ODD
		2	EVEN
3	Data Bits	0	8 BITS
		1	7 BITS
4	Stop Bits	0	1 BIT
		1	2 BIT
5	Device Function	0	NONE
		1	PC
		2	SCALE
		3	Remote Journal (TVS Interface)
		4	Remote Printer
		5	EFT Device
		6	Scanner
		7	COIN
		9	Pole Display
6	Initial Feeding Line KP	0 - 20	
7	End Feeding Line KP	0 - 20	
8	Initial Feeding Line Slip	0 - 20	
9	Print Line On Guest Check	0 - 50	
10	Scale Type	0	NCI
		1	CAS
11	Printer Type	0	NONE
		1	SAMSUNG SRP-100
		2	SRP-250
		3	SRP-300
		4	SRP-350
		5	CITIZEN 3550
		6	CITIZEN 810
		7	CITIZEN 230

Address	Option	Value	Selection
		8	EPSON TM T88-2
		9	EPSON U200
		10	EPSON U295
		11	EPSON U300
		12	EPSON U325
		13	EPSON U375
		14	STAR SP-200
		15	STAR SP-298
		16	STAR SP-300
		17	STAR TSP-200
12	Display Type	0	EPSON
		1	ICD

Cable Configurations

Typical Scanner Connections



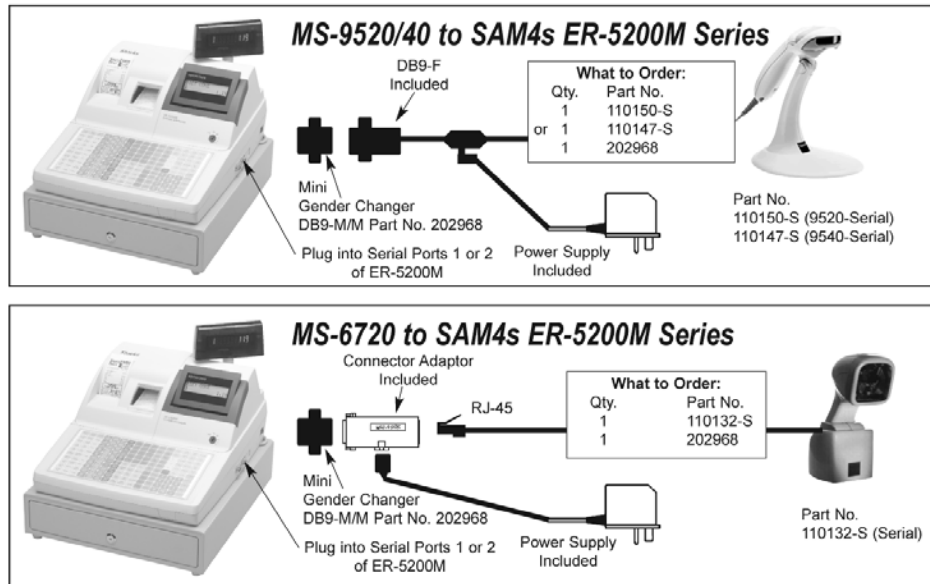
Optional

Note: Optionally, +5 Volts can be connected for scanners without a power supply. An external power supply is needed for scanners connected to ports 3 or 4.

CCD

The appropriate cable is included with each scanner. Connect the DB9 Male connector to port 1 of the SAM4s 7000 ECR.

Scanner Connection Diagrams for SER-7000



Scanner Settings

Before installation, each scanner must be set up by scanning the appropriate bar codes. Typically, this procedure is done only once - the settings will be maintained when scanner power is disconnected. To set up a scanner, find the appropriate column of bar codes, and scan each code individually from top to bottom. Wait for all beeps to finish before proceeding to next bar code.

Scan Codes for 6720 Laser Scanner



Scan Codes for 9520 Laser Scanner



Pole Display

Setting the ER-5200 RS-232C Port

At the ER-5200, you must select 'Pole Display' as the device that is attached to the RS-232C communications port. You must also set the parity check, data bits, and stop bits to **None**, **8**, and **0** respectively.

1. Turn the control lock to the **S** position.
2. Enter **8 0** and press the **SBTL** key.
3. Enter the option number and press the **X/TIME** key. (Refer to the RS-232C option chart that follows.)
4. Enter the value that represents your selection and press the **CASH** key.
5. Press **CASH** to exit the program.

Repeat for another
Index



6. The ECR receipt prints as shown below:

```
2.PARITY CHECK :NONE
3.DATA BITS    : 8
4.STOP BITS    : 0
5.DEVICE FUNCTION :POLE
DATE 03/17/2003 MON   TIME 08:47
```

=====

```
1.BAUD RATE      :9,600
2.PARITY CHECK   :NONE
3.DATA BITS      : 8
4.STOP BITS      : 0
5.DEVICE FUNCTION :POLE
6.INITIAL FEED LINE ON KP:0
7.ENDING FEED LINE ON KP:7
8.INITIAL FEED LINE ON SLIP:0
9.PRINT LINE ON GUEST :0
10.SCALE TYPE     : NCI
11.PRINTER :STAR SP-298
12.POLE DISPLAY TYPE :EPSON
CLERK 1          No.000026 00000
```

RS-232 Option Chart

Address	Option	Value	Selection
1	Baud Rate	0	9600 BPS
		1	1200 BPS
		2	2400 BPS
		3	4800 BPS
		4	19200 BPS
2	Parity	0	NONE
		1	ODD
		2	EVEN
3	Data Bits	0	8 BITS
		1	7 BITS
4	Stop Bits	0	1 BIT
		1	2 BIT
5	Device Function	0	NONE
		1	PC
		2	SCALE
		3	Remote Journal (TVS Interface)
		4	Remote Printer
		5	EFT Device
		6	Scanner
		7	COIN
		9	Pole Display
6	Initial Feeding Line KP	0 - 20	
7	End Feeding Line KP	0 - 20	
8	Initial Feeding Line Slip	0 - 20	
9	Print Line On Guest Check	0 - 50	
10	Scale Type	0	NCI
		1	CAS
11	Printer Type	0	NONE
		1	SAMSUNG SRP-100
		2	SRP-250
		3	SRP-300
		4	SRP-350
		5	CITIZEN 3550
		6	CITIZEN 810
		7	CITIZEN 230

Address	Option	Value	Selection
		8	EPSON TM T88-2
		9	EPSON U200
		10	EPSON U295
		11	EPSON U300
		12	EPSON U325
		13	EPSON U375
		14	STAR SP-200
		15	STAR SP-298
		16	STAR SP-300
		17	STAR TSP-200
12	Display Type	0	EPSON
		1	ICD

Cable Configuration

ICD 2002

Samsung DB-9 Male		ICD-2002 RS232 DB-9 Male	
DCD	1	1	NC
RXD	2	2	TXD
TXD	3	3	RXD
DTR	4	4	DTR
SG. GND	5	5	SG. GND
DSR	6	6	DSR
RTS	7	7	+Vcc
CTS	8	8	Power Supply (GND)
+Vcc	9		