

KSC INSTRUCTION MANUAL

INTRODUCTION

Cash drawer models 3S-423-KSC, 3S-460-KSC, FT-100-KSC, etc. are fitted with an RS-232 interface module, enabling the cash drawer to be triggered by a computer serial port.

- ◆ No external power source or mains adapter is required for many PC's. An optional mains adapter is available for use with terminals or PCs whose serial ports do not supply 12V dc continuously (see Troubleshooting).
- ◆ Selectable noise filter prevents false openings.
- ◆ "Drawer Open" signal can be read to indicate drawer status.

Any string of characters sent to this COM port will open the cash drawer. If an intelligent interface which can recognise a specific character is desired, the KSI interface is required.

CABLES

We supply a cable with each cash drawer at no additional cost. Two versions of this cable are available: 9-way female or 25-way female (to connect to your COM port). Please specify your choice whilst ordering.

The pins are connected as follows:

Colour	Mini Din Connector (plugs into cash drawer)	Computer Serial Port		Definition
	Pin #	25 Pin	9 Pin	
BROWN	Shell	1	5	Ground
GREEN	6	2	3	TXD
BLUE	1	3	2	RXD
RED	2	4	7	RTS
BLACK	7	7	5	SG
WHITE	8	22	9	RI
JUMPER 1*	-	4, 5	7, 8	RTS, CTS
JUMPER 2*	-	6, 8, 20	1, 4, 6	DSR, DCD, DTR

* Jumpers simulate serial port handshaking.

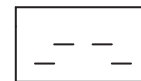
Dip Switches

There are four configuration switches visible at the back of the cash drawer. The ON direction is noted on the switch by an arrow. The factory setting is correct for most installations.

	SW1	SW2	
Use either:	ON	OFF	Selects TXD as open pulse source (factory setting)
	OFF	ON	Selects RXD as open pulse source (as with Wyse terminals)

	SW3	SW4	
Use either:	OFF	ON	Selects noise filter (factory setting)
	ON	OFF	Selects no noise filter

Note that SW1 / SW2 and SW3 / SW4 must be opposite each other.



Factory Setting

BAUD RATE

The recommended baud rate is 1200. If you are using a slow baud rate (110) the high noise filter may reject opening characters as noise. Try setting SW3 ON the SW4 OFF to eliminate the noise filter or use a higher baud rate (1200 to 9600).

TESTING

Make sure centre drawer lock is unlocked. If the manual release is on the right of the drawer it is always unlocked. Plug in the AC mains adapter to jack on rear of drawer if your system requires one for terminals and PCs whose serial ports do not supply 12V dc continuously (see Troubleshooting).

Drawer should open when any string of data is sent to the serial port. The following is one means of doing this from DOS.

```
C:> MODE COM1:1200,n,8,1
C:> ECHO xyz%% > COM1
```

These lines leave output directed to the COM port. Restart the computer before running POS software or other programs.

USING THE DRAWER STATUS SIGNAL

The drawer status signal can be read by software as Ring Indicate (RI). The signal is 12VDC (High) when the drawer is open and Earth (Low) when the drawer is closed.

TROUBLESHOOTING

- ◆ Re-check the DIP Switches, drawer lock, and interface cable.
- ◆ Make sure you are plugged into the desired serial port.
- ◆ Try sending more characters in your opening command -- 5 or more, not zeros.
- ◆ Try low filter switch setting in the event that trigger signal is weak -- SW3 ON and SW4 OFF.
- ◆ Try setting terminal mode switch setting -- SW2 ON and SW1 OFF. Reset to standard settings if drawer does not open.
- ◆ Some software turns off the RTS line of the serial interface between drawer openings, which will not allow the capacitors on the interface to charge. Software designed to keep RTS High is available upon request. This device may or may not work well with your software. If a software solution is not possible, a mains adapter, available from ICD may be used. **The mains adapter must be 12V, 500mA, Negative Centre.**
- ◆ If cash drawer is connected to a terminal rather than a PC, a mains adapter as described above will probably be necessary.

I-192 3S-460-NF-BMA KSC

Serial RS232 Cash Drawer

Switches

1 and 4 Down (On)
2 and 3 Up (Off)

Or

1 and 3 Down (On)
2 and 4 Up (Off)

Use the following commands to test tilldraw opening.
The MODE command configures the PC's COM port.
The ECHO command will open the tilldraw.
NB. Amend COM1 to COM port tilldraw is connected to.
Please ensure the tilldraw is not locked before testing.

Click Start, Run, CMD

```
C:\>MODE COM1 9600,N,8,1
```

```
Status for device COM1:
```

```
-----  
Baud:          9600  
Parity:        None  
Data Bits:     8  
Stop Bits:     1  
Timeout:      OFF  
XON/XOFF:     OFF  
CTS handshaking: OFF  
DSR handshaking: OFF  
DSR sensitivity: OFF  
DTR circuit:  ON  
RTS circuit:  ON
```

```
C:\>ECHO 1234 >COM1
```

Same test at a slower BAUD rate

C:\>MODE COM1 1200,N,8,1

Status for device COM1:

Baud: 1200
Parity: None
Data Bits: 8
Stop Bits: 1
Timeout: OFF
XON/XOFF: OFF
CTS handshaking: OFF
DSR handshaking: OFF
DSR sensitivity: OFF
DTR circuit: ON
RTS circuit: ON

C:\>ECHO 1234 >COM1