

U1270/2/3/4 have 25p male, U1172 and U1272/3 have also 15p female. U137 series have 25p female D-sub.

**Able model A164PM** panel printer. 5VDC.

| Instrument     | +TD(TX)       | CTS             | Common  | -TD(TX)          | Shield |
|----------------|---------------|-----------------|---------|------------------|--------|
| 25p D-sub U137 | 15            | 9               | 7       | 14               | 1      |
| 25p D-sub U127 | 5             | 4               | 1       | 14               | 17     |
| 15p D-sub U127 | 6             | 7               | 15      | 5                | 4      |
| Printer        | 5,6,8,E<br>0V | 1,3,10,12<br>5V | C<br>5V | 16 —1kohm—<br>In | 0V     |

Printer pin 9, 11, 13, 15 via common 100k to 5V. Pin 2 via 3.3k to B.  
E, B and C are emitter, base and collector of NPN transistor 2N2222A. 1200 baud is used.

**Amplicom model 24** panel printer. 5VDC.

| Instrument     | -TD(TX) | CTS     | Shield  | Common            | +TD(TX)  |
|----------------|---------|---------|---------|-------------------|----------|
| 25p D-sub U137 | 14      | 9       | 1       | 7                 | 15       |
| 25p D-sub U127 | 14      | 4       | 17      | 1                 | 5        |
| 15p D-sub U127 | 5       | 7       | 4       | 15                | 6        |
| Printer        | L<br>0V | M<br>5V | 3<br>0V | P<br>DTR          | C<br>0V  |
|                |         |         |         | A —220 ohm—<br>5V | 15<br>In |

Remark: 72 characters buffer can not be used.

**Citizen CBM-510 or CBM-520.**

|          |                 |                 |
|----------|-----------------|-----------------|
| S1:1 off | 8 bit data      | S2:1 off        |
| 2        |                 | 2 off           |
| 3 on     | No parity check | 3 off 2400 baud |
| 4 (on)   | (Odd parity)    | 4 on 1200 baud  |
| 5 on     | 1 stop bit      | 5 off           |
| 6 on     | RS232           | 6 off 300 baud  |
| 7 off    |                 | 7 off           |
| 8 off    |                 |                 |
| 9 on     |                 |                 |
| 10 off   |                 |                 |

The following changes shall be made inside the printer CBM-510.

25p D-sub p9 is moved from p1 to p4 (+12V) on internal 15p connector.

25p D-sub p21 is moved from p12 to p2 (-12V) on internal 15p connector.

| Instrument      | +TD(TX)       | -TD(TX)  | CTS         | Common | Shield |
|-----------------|---------------|----------|-------------|--------|--------|
| 25p D-sub U137  | 15            | 14       | 9           | 7      | 1      |
| 25p D-sub U127  | 5             | 14       | 4           | 1      | 17     |
| 15p D-sub U127  | 6             | 5        | 7           | 15     | 4      |
| 25p D-sub       | 9 —3.3kohm— 3 | 21       | 1kohm<br>20 | 7      | 1      |
| Printer CBM-510 | +12V RXD      | -12V DTR | Zero        | Shield |        |

| Instrument      | +TD(TX)       | -TD(TX)  | CTS        | Com.   | Shield          |
|-----------------|---------------|----------|------------|--------|-----------------|
| 25p D-sub U137  | 15            | 14       | 9          | 7      | 1               |
| 25p D-sub U127  | 5             | 14       | 4          | 1      | 17              |
| 15p D-sub U127  | 6             | 5        | 7          | 15     | 4               |
| 15p Molex       | 4 —3.3kohm— 6 | 2        | 1kohm<br>3 | 13     | Screw<br>Shield |
| Printer CBM-520 | +12V RXD      | -12V DTR | Zero       | Shield |                 |

**Edu model Alfapanel HS.** Serial TTL.

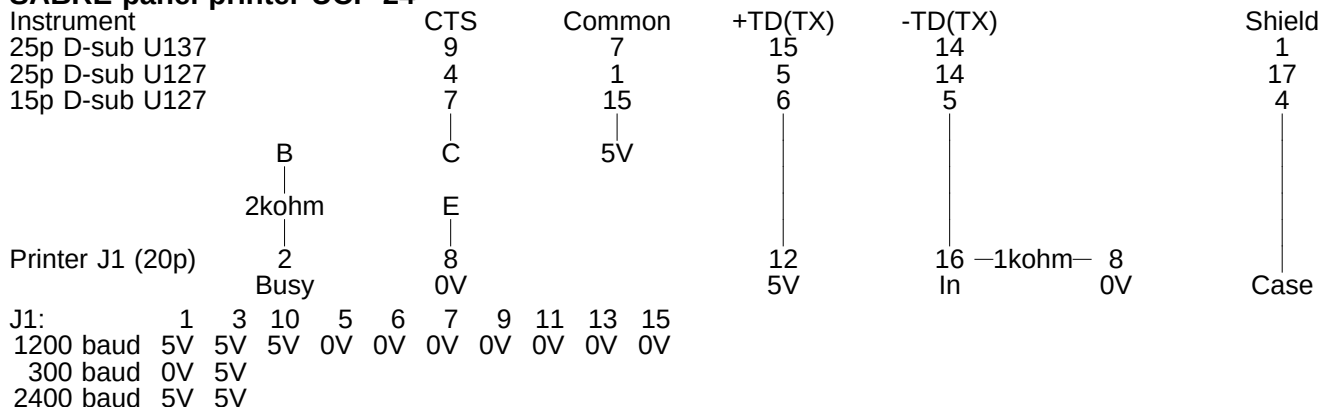
| Instrument      | +TD(TX)             | Common    | CTS              | -TD(TX)      | Shield |
|-----------------|---------------------|-----------|------------------|--------------|--------|
| 25p D-sub U137  | 15                  | 7         | 9                | 14           | 1      |
| 25p D-sub U127  | 5                   | 1         | 4                | 14           | 17     |
| 15p D-sub U127  | 6                   | 15        | 7                | 5            | 4      |
| Printer 20p CN1 | 1,2,3,4,13,14<br>5V | 18<br>DTR | 20 —2kohm—<br>RD | 5,6,17<br>0V |        |

1200 baud is used. Power to the printer: 5V, 0.95A (4.5A peak).

**ITT Instruments panel printer IPP 144-40 and 144-40E**

Parameters are chosen in a menu program. E.g. 300 to 2400 Baud and may be selected. Buffer: 2kB.  
The E version has a clock/calendar and stores 15 text strings with 40 characters each. Buffer: 4kB.

| Instrument     | -TD(TX) | Shield    | +TD(TX)               |
|----------------|---------|-----------|-----------------------|
| 25p D-sub U137 | 14      | 1         | 15                    |
| 25p D-sub U127 | 14      | 17        | 5                     |
| 15p D-sub U127 | 5       | 4         | 6                     |
| 9p D-sub       |         | 1 —1kohm— | 5 —1kohm— 3 —1kohm— 2 |
| Printer        |         | GND RXD-  | +5V RXD+              |

**SABRE panel printer UCP-24**

E, B and C are emitter, base and collector of NPN transistor 2N2222A.

By connecting J2:7 to J2:8, printing is reversed (after restart).

Power supply 5V  $\pm$  0.5V, 1.5A (3A in short surges).

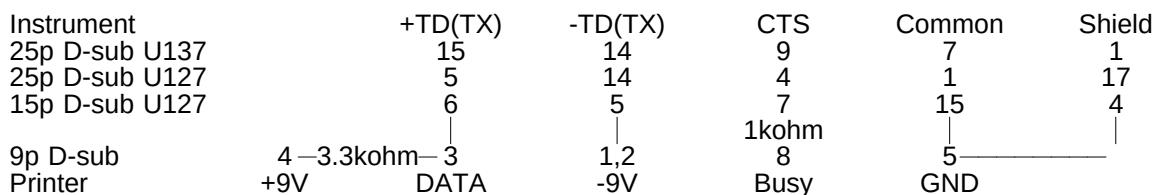
**Seiko DPU-201G .**

SW1 on 8 bit data  
 SW2 on No parity check  
 SW3  
 SW4 on  
 Sw5 off 1200 baud  
 Sw6 off

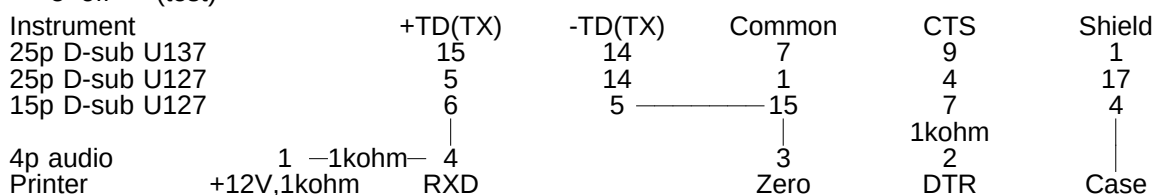
The following changes shall be made inside the printer.

Pin 1,2 shall be connected to the internal -9V.

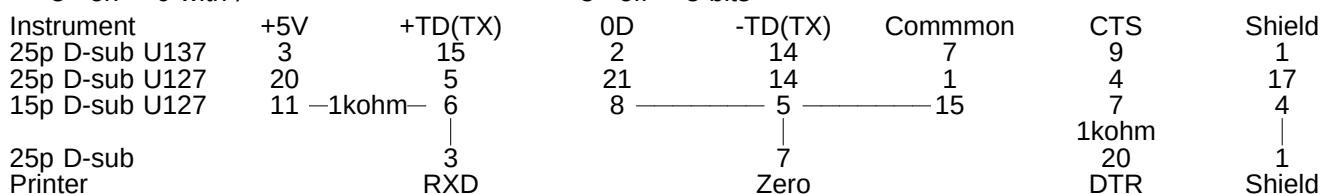
Pin 4 shall be connected to the internal +9V.

**Seikosha GP55AS**

S:1 on  
 2 off 1200 baud  
 3 off 8 bits  
 4 on CR + LF on CR  
 5 off (test)

**Seikosha SP1200AS.**

|                       |          |                       |
|-----------------------|----------|-----------------------|
| S1:1 off              | S2:1 off | CSF not selected      |
| 2 off USA             | 2 on     | 1" skip perforation   |
| 3 off                 | 3 off    | 1200                  |
| 4 on 12" paper length | 4 off    | on 2400 off 4800 baud |
| 5 on IBM              | 5 off    | Ready/busy            |
| 6 on Character set 2  | 6 off    | No parity             |
| 7 on CR + LF on CR    | 7 off    |                       |
| 8 on 0 with /         | 8 off    | 8 bits                |



(Internal +5V in instrument is used.)

**Seikosha SP2400.**

|      |     |                  |      |     |                     |     |      |     |           |
|------|-----|------------------|------|-----|---------------------|-----|------|-----|-----------|
| S1:1 | off | on               | S2:1 | off | 1200                | on  | 2400 | off | 4800 baud |
| 2    | on  | Swedish          | 2    | off |                     | off |      | on  |           |
| 3    | off | British          | 3    | off | Ready/busy          |     |      |     |           |
| 4    | on  | 12" paper length | 4    | off | No parity           |     |      |     |           |
| 5    | on  | IBM              | 5    | off |                     |     |      |     |           |
| 6    | on  | Character set 2  | 6    | off | 8 bits              |     |      |     |           |
| 7    | off | LF on LF         | 7    | on  | Serial interface    |     |      |     |           |
| 8    | on  | CR + LF on CR    | 8    | off | CSF Cutsheet feeder |     |      |     |           |

|                   |                |         |        |
|-------------------|----------------|---------|--------|
| Instrument        | +TD(TX)        | -TD(TX) | Shield |
| 25p D-sub U137    | 15             | 14      | 1      |
| 25p D-sub U127    | 5              | 14      | 17     |
| 15p D-sub U127    | 6              | 5       | 4      |
|                   | 3              | 7       | 1      |
| 25p D-sub Printer | 13 —1kohm— +5V | Zero    | Shield |

Internal printer +5V is found on the parallel interface connector pin 18. This pin may be internally connected to pin 13 on the 25p D-sub. The large buffer in the printer, 17.5 kbytes, means that the use of DTR is superfluous.

**Star DP8340-D** 40 ch. 114mm printer with 1.5k buffer. 220V (12VDC).

|      |                 |                |               |
|------|-----------------|----------------|---------------|
| S1:1 | off             | off            | on            |
| 2    | off 300 baud    | on 1200 baud   | off 2400 baud |
| 3    | on              | on             | off           |
| 4    | on 1 stopbit    |                |               |
| 5    | on DTR mode     |                |               |
| 6    | on 8 data bits  |                |               |
| 7    | on No parity    |                |               |
| 8    | on (Odd parity) |                |               |
| S2:1 | on              | off            |               |
| 2    | on English ch.  | off German ch. |               |
| 3    | on              |                |               |
| 4    | off CR valid    |                |               |

The printer must be set for current loop, J3 changed and J7 moved to B-C.

|                   |         |         |                     |
|-------------------|---------|---------|---------------------|
| Instrument        | +TD(TX) | -TD(TX) | Shield              |
| 25p D-sub U137    | 15      | 14      | 1                   |
| 25p D-sub U127    | 5       | 14      | 17                  |
| 15p D-sub U127    | 6       | 5       | 4                   |
|                   | 18      | 7       | 1                   |
| 25p D-sub Printer | RXDR    | Zero    | Zero                |
|                   |         |         | 19 —680 ohm— 4 +12V |

**Star SP300** 40 ch. 76mm printer With 4k buffer. 220V.

|      |                           |                 |               |               |              |
|------|---------------------------|-----------------|---------------|---------------|--------------|
| S1:3 | off CR + LF on CR         |                 |               |               |              |
| 5    | on 1/6 inch LF            | off 1/8 inch LF |               |               |              |
| 6    | on 4k buffer              |                 |               |               |              |
| 7    | on RAM back up            |                 |               |               |              |
| S2:1 | on                        | off             | on            |               |              |
| 2    | on English ch.            | on IBM set 1    | off IBM set 2 |               |              |
| 4    | on 76 to 90mm paper width |                 |               |               |              |
| 6    | on                        | off             | on            | off           | off          |
| 7    | on USA                    | on France       | off Germany   | off England   | on Sweden    |
| 8    | on                        | on              | on            | on            | off          |
| S3:1 | off                       | off             | on            | on            | on           |
| 2    | off 300 baud              | on 1200 baud    | off 2400 baud | off 4800 baud | on 9600 baud |
| 3    | on                        | on              | off           | on            |              |
| 5    | on DTR mode               |                 |               |               |              |
| 6    | on 8 data bits            |                 |               |               |              |
| 7    | on No parity              |                 |               |               |              |
| 8    | on (Odd parity)           |                 |               |               |              |

|                   |         |         |        |
|-------------------|---------|---------|--------|
| Instrument        | +TD(TX) | -TD(TX) | Shield |
| 25p D-sub U137    | 15      | 14      | 1      |
| 25p D-sub U127    | 5       | 14      | 17     |
| 15p D-sub U127    | 6       | 5       | 4      |
|                   | 3       | 7       | 1      |
| 25p D-sub Printer | 4 — TRS | RXD     | SGND   |
|                   |         |         | FGND   |

**Star SP212F** 42 ch. 76mm printer With 1k buffer. 230V.

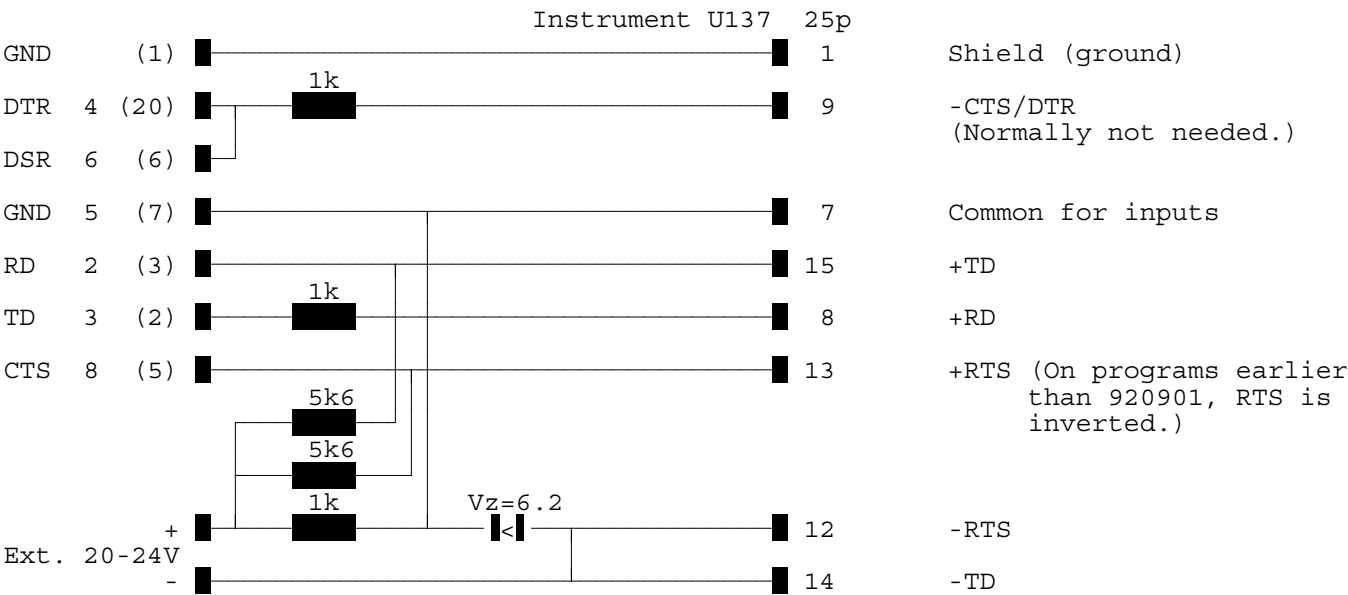
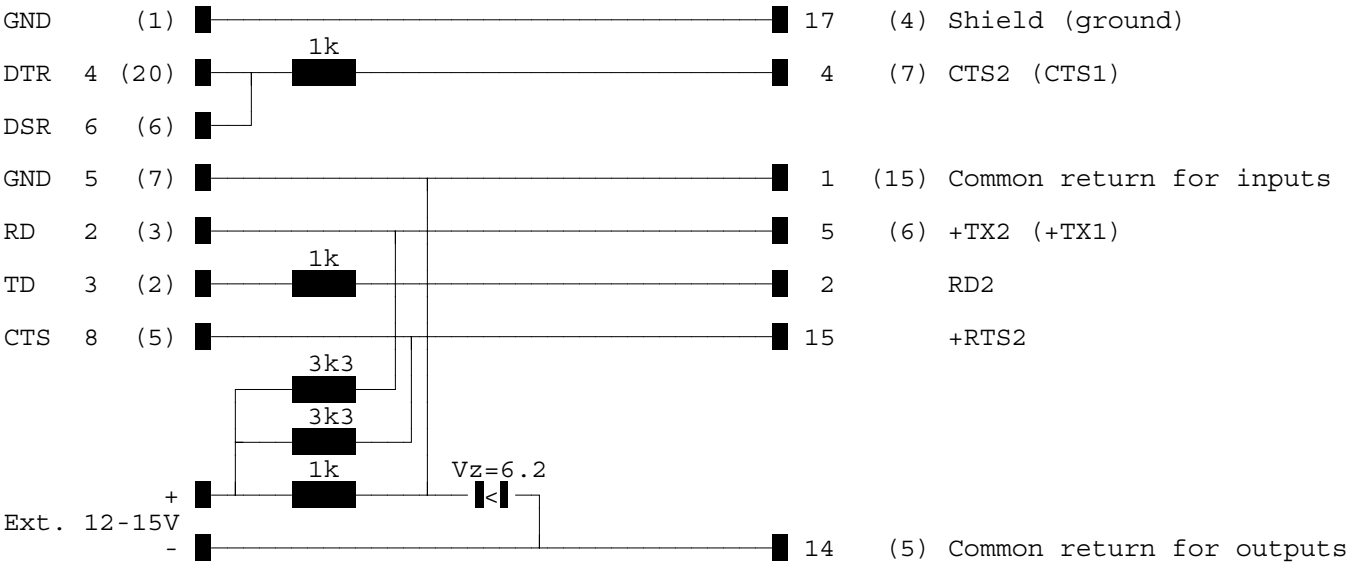
|      |               |               |              |              |
|------|---------------|---------------|--------------|--------------|
| S1:2 | off CR valid  |               |              |              |
| 6    | off 1200 baud | off 2400 baud | on 4800 baud | on 9600 baud |
| 7    | off           | on            | off          | on           |

All other switches on.

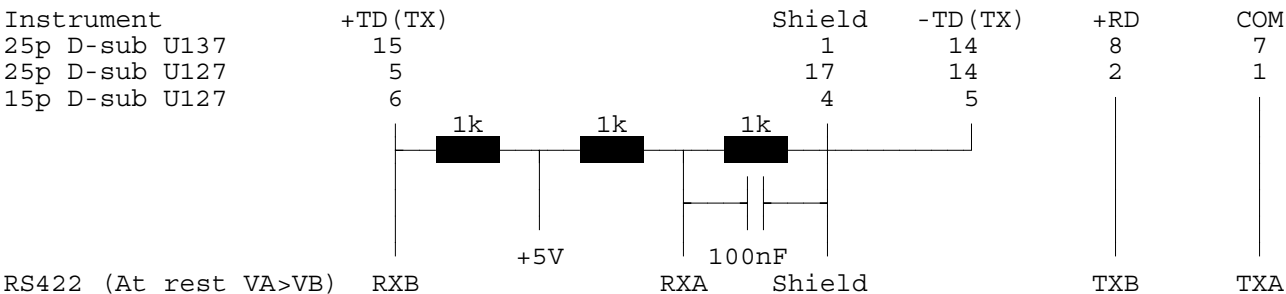
| Instrument        |              | +TD(TX) | -TD(TX) | Shield |
|-------------------|--------------|---------|---------|--------|
| 25p D-sub U137    |              | 15      | 14      | 1      |
| 25p D-sub U127    |              | 5       | 14      | 17     |
| 15p D-sub U127    |              | 6       | 5       | 4      |
| 25p D-sub Printer | 4 -1kohm TRS | 3 RXD   | 7 SGND  | 1 FGND |

Connection to DOS computer.

9p D-sub fem. (25p D-sub fem.) Instrument U127, 25p (15p)



Connection to RS422.



NOTE!. As the interface is optoisolated and passive, the best way is to use the power supply in the printer or computer, else a separate supply has to be added. As most modern printers have a buffer, the DTR signal is not needed.