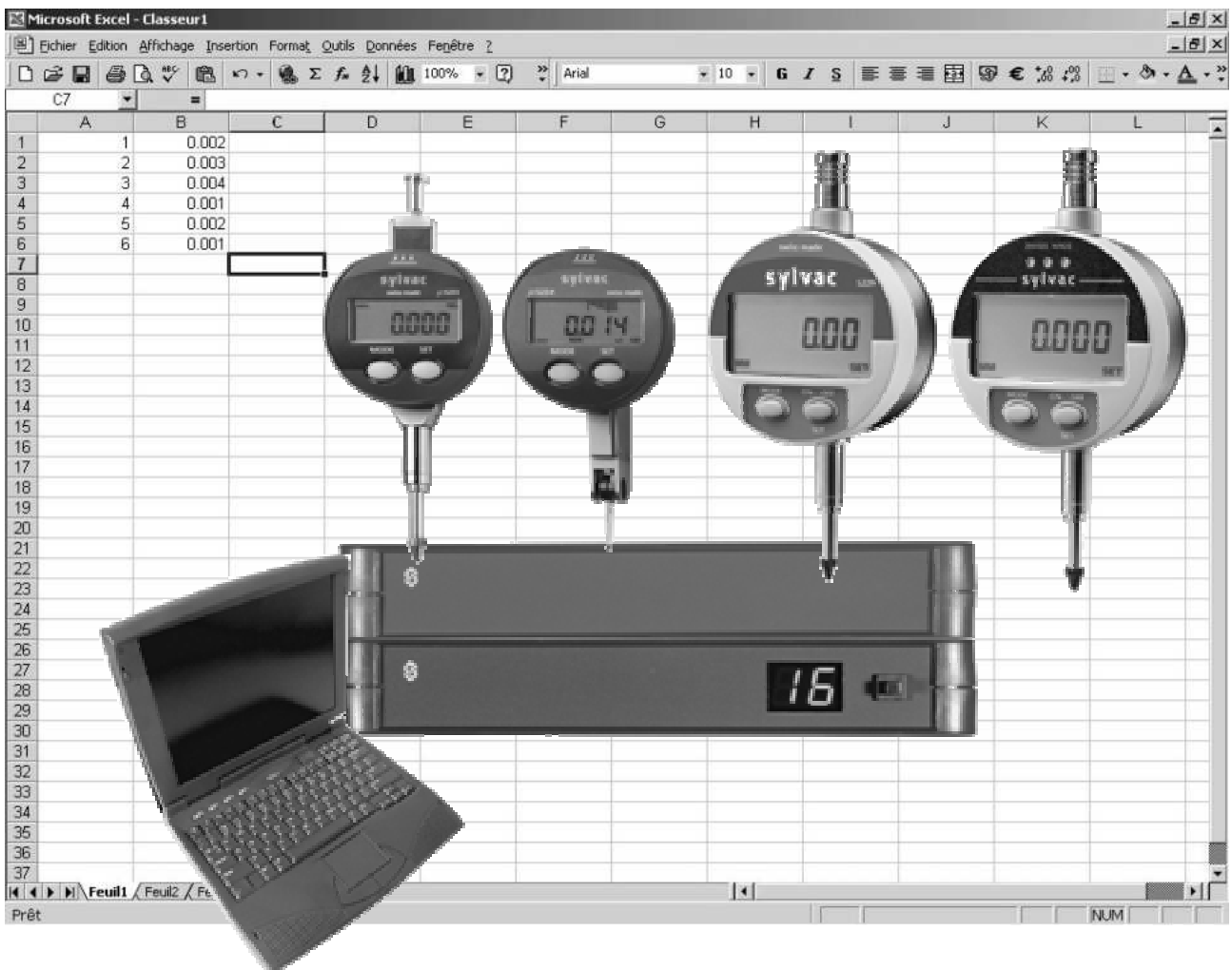


D104-PC / D104

User's Manual

Version 3.2





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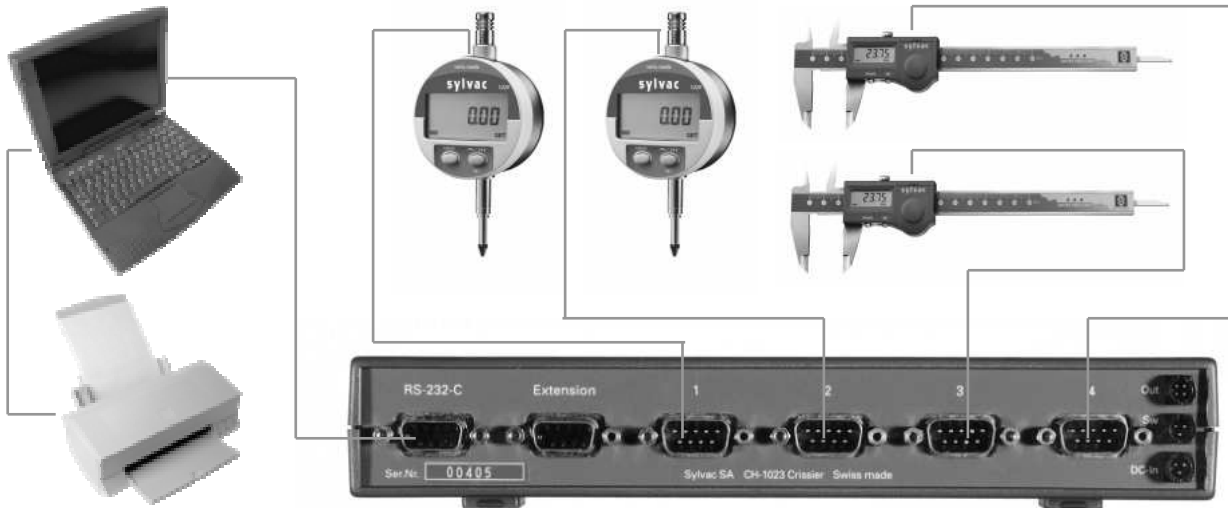


1. General description

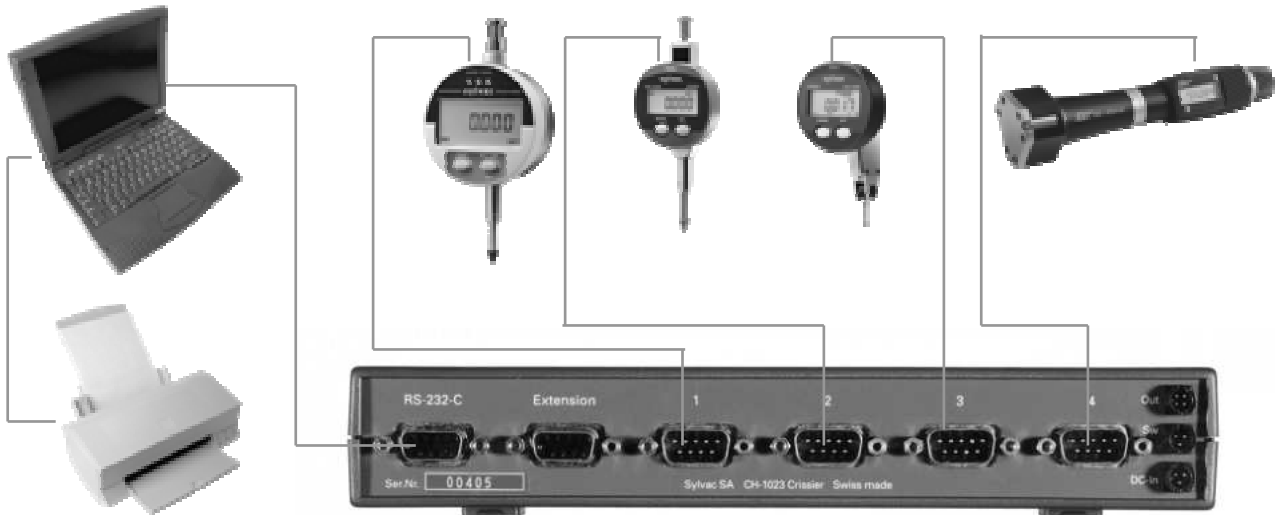
The D104-PC *multiplexer* is designed for connecting up to 4 RS232 instruments to the same port of a personal computer (PC).

The D104 unit allows connection of 4 additional instruments. The maximum is 48 inputs, so one (1) D104-PC *multiplexer* and eleven (11) D104.

Example of connection : (with cable « **simplex** »)



Example of connection : (with cable « **duplex** »)



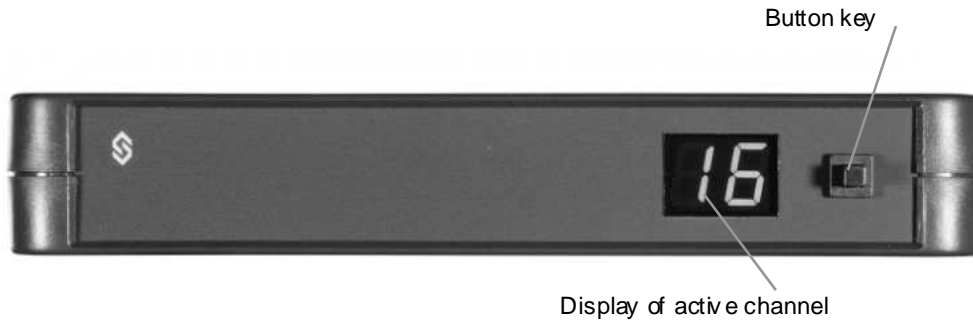
The selection of functions can be done as follow :

- By remote commands from a PC
- With the button key on front panel.
- With the external contact (foot pedal)

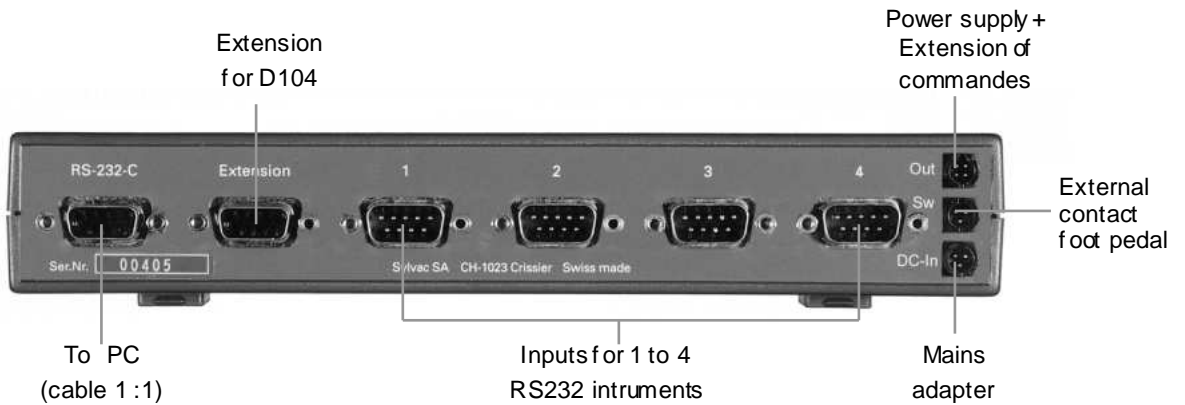
The active channel is displayed on the front panel.



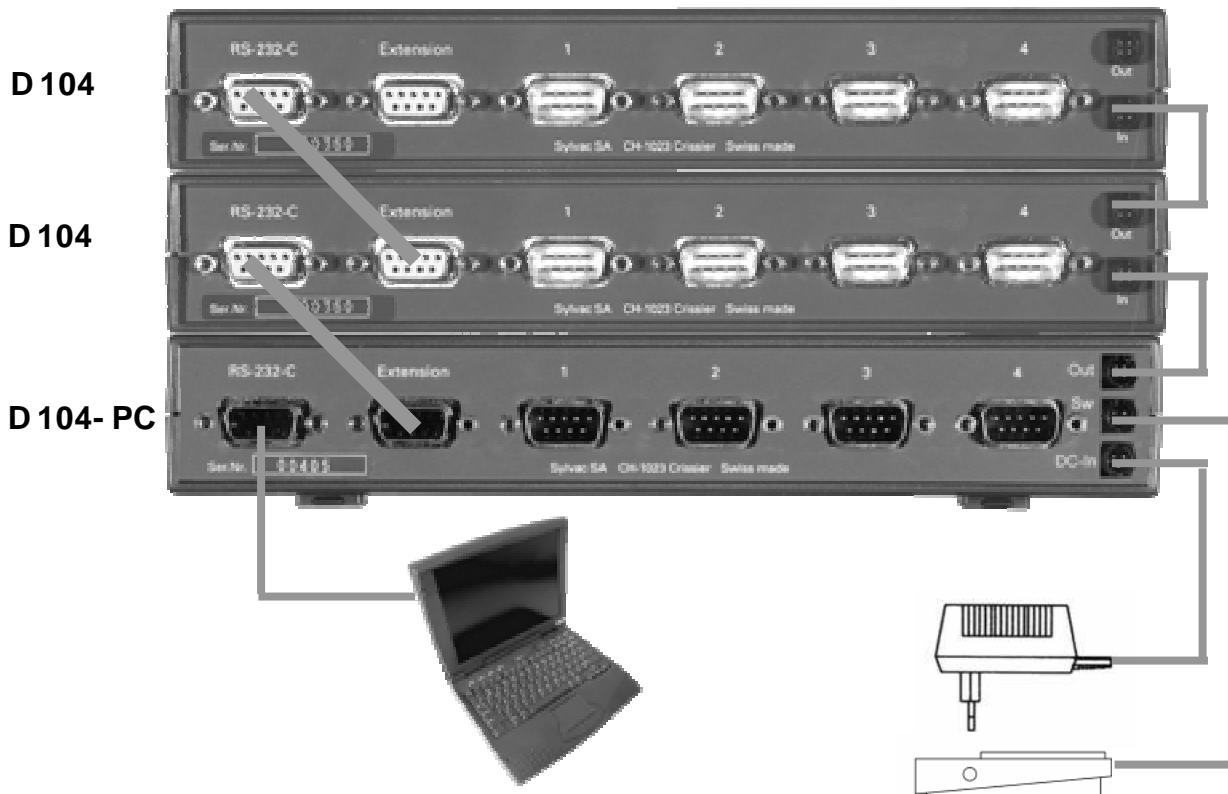
2. Front panel (D104-PC)



3. Rear panel (D104-PC)



4. Example of connecting two D104 units on a D104-PC multiplexer



5. Manual setting for the number of channels used

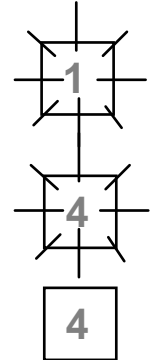
Selecting the number of channel used (example 1...4)

1. The multiplexer **ON** , press (>2 sec.) on button key

The display will indicate a twinkling number

2. Select the maximum channel used 1,2,3,4 by short pressure (<2 sec.)
Limit = 48 channels or instruments.

3. Memorize the channel by pressing (>2 sec.) on button key.



6. Manual setting for the function of the button key

Button key functions

0 = no function.

1 = channel change, from channel 1 to defined channel. (See chapter. 5)

2 = channel change and data sending for simplex cable.

3 = channel change and data sending for duplex cable.

4 = data sending for current channel.

5 = data sending for simplex cable and channel change.

6 = data sending for duplex cable and channel change.

7 = **PRE** sending to the instrument (only duplex cables with duplex instruments)

8 = **CLE** sending to the instrument (only duplex cables with duplex instruments
, also active with **S233A/S234 in min, max, min – max. mode**).

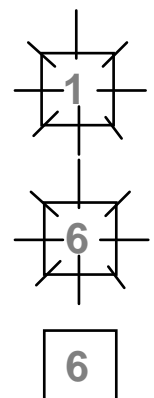
7. Selecting the function of the button key (example :6)

1. Remove the mains adapter of D104 PC , if the additional « booster » adapter is connected, remove it as well..

2. Press the button key when plugging in the mains adapter of D104-PC.

3. Select by short pressure (<2 sec.) on the button key to choose the selected function.

4. Memorize the selection by a pressure (>2 sec.) on the button key.





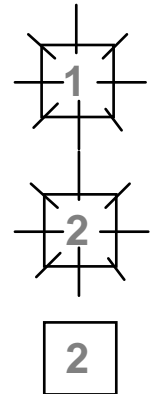
8. Manual setting for the function of external contact (foot-pedal)

External contact (foot-pedal) functions

- 0 = no function.
- 1 = channel change, from channel 1 to defined channel. (See chapter. 5)
- 2 = channel change and data sending for simplex cable.
- 3 = channel change and data sending for duplex cable.
- 4 = data sending for current channel.
- 5 = data sending for simplex cable and channel change.
- 6 = data sending for duplex cable and channel change.
- 7 = **PRE** sending to the instrument (only duplex cables with duplex instruments)
- 8 = **CLE** sending to the instrument (only duplex cables with duplex instruments , also active with **S233A/S234 in min, max, min – max. mode**).

9. Selecting the function of external contact (foot-pedal) (example :2)

1. Remove the mains adapter of D104 PC , if the additional « booster » adapter is connected, remove it as well..
2. Press the foot-pedal when plugging in the mains adapter of D104-PC.
5. Select by short pressure (<2 sec.) on the foot-pedal to choose the selected function.
3. Memorize the selection by a pressure (>2 sec.) on the foot-pedal.



Note :

The functions of the button key and the foot pedal can be different, however functions 7 and 8 are intended only for duplex cables and duplex instruments, as well as function 8 is intended for the S233 analog instruments, S234.



10. Remote commands from a PC

Transmission parameters :

4800 bps, 7 bits, parity even, 2 stop bits

Description of remote commands

ADD+ *channel number* : select the channel number and data sending. (ADD1 ␣)

ADN+ *channel number* : select the channel number without data sending. (ADN1 ␣)

PGM C+ *channel number*: Memorize the maximum number of channel to be used. (PGM C4␣)

PGM K+ *function number* :Memorize the button key function. (PGM K3␣)

PGM F+ *function number* : Memorize the foot-pedal function. (PGM F2␣)

SCA a-z : Allow s a scanning in simplex mode and data sending
from channel « a » to channel « z ». (SCA 1-4␣)

SCAD a-z: Allows a scanning in duplex mode and data sending
from channel « a » to channel « z ». (SCAD 14␣)

VER : Display the software version of D104-PC (VER␣)

Note : The character ␣ is the ASCII character (13) = (CR) carriage return
This character is necessary if he is not included into the communication software.

Other remote commands

The remote commands are generally used with the duplex cables and duplex instruments except the remote command **CLE** (Clear). This remote command allows the initialization of min, max, delta on the following simplex instruments : S233 analog, S234.

For the duplex cables with duplex instruments, all remote commands according to the instruments used are available. (See User's manual of the instrument)

Mixing simplex and duplex cables.

Mixing **simplex** and **duplex** cables **are not allowed**. If you use **simplex** and **duplex instruments**, please use **duplex** cables only.

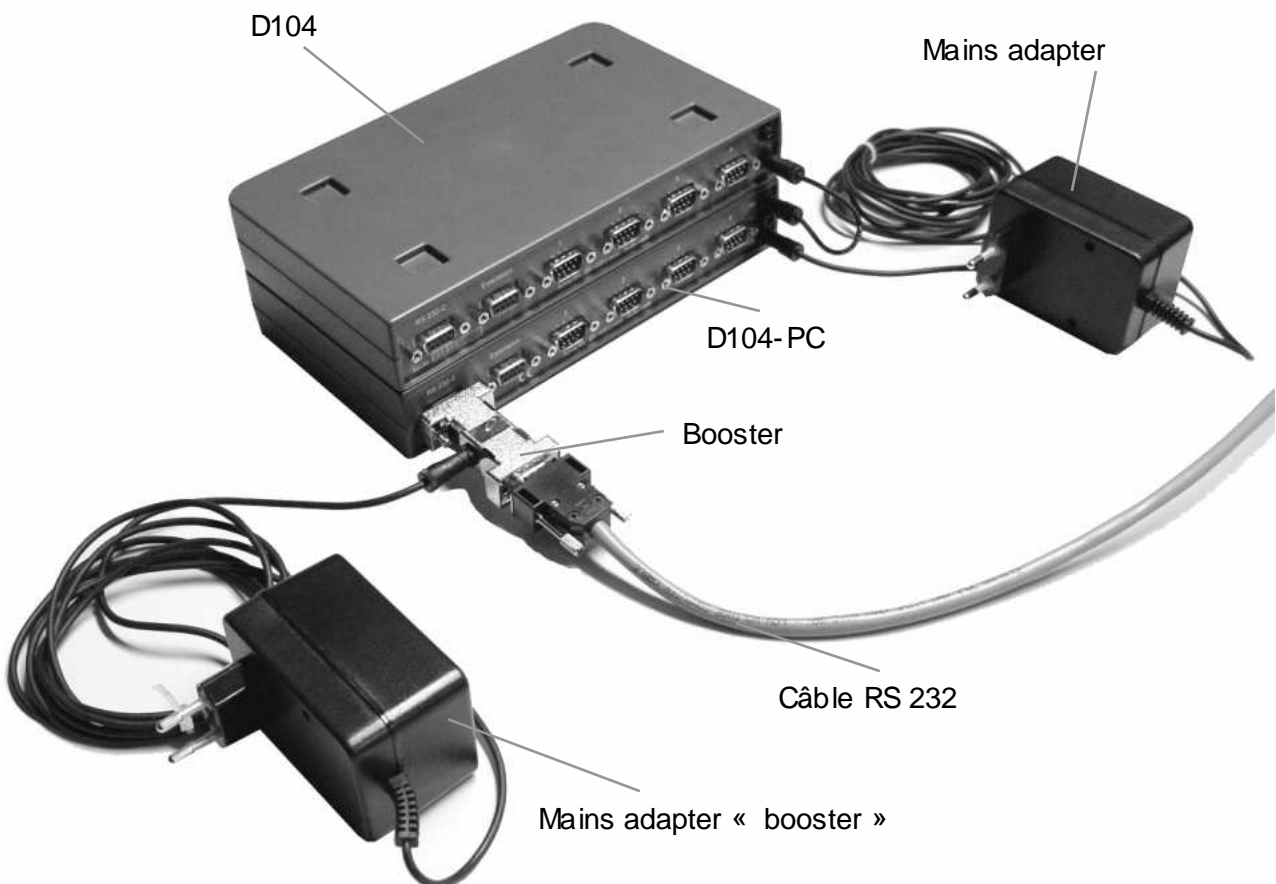


11. Additional power supply « Booster »

In case of connecting more than 4 mini-dial gauges S233/S234, the using of a « Booster » additional power cable is necessary for the unit D104-PC/ D104.

This ensures a good level of power supply on all gauges.

This additional "Booster" gives a considerable advantage, indeed it supplies all instruments S233/S234 connected to a D104-PC and D104, which allows individual power supply to these instruments. (Not losing the offsets).





12. Technical specifications

Housing in Terblend plastic (ASA + polycarbonate), polyurethane clip-on legs, polycarbonate front panel and varnished aluminium rear panel.

IP degree protection :	IP 50 (according IEC529)
Weight of unit :	1.1 lb (0.5 kg)
Operating temperature :	betw een +40°and + 100°F (+5°à +40°C)
Storage temperature :	betw een +0°and +140°F (-20 °à +60°C)
Pow er supply :	Mains adapter +8.5V/1100 mA
RS232 sw itching:	Only RxD and TxD lines are sw itched

13. Delivery

	Order Nb.
D104 PC Multiplexer including :	904.1105
- 1 mains adapter according to country :	
Euro 230V	(904.4010)
US 120V	(904.4012)
UK 240V	(904.4011)
Japon 100V	(904.4013)
- 1 RS232 connecting cable 80 '' (2m.) 9M-9F (1 :1)	(925.5609)

Order Nb.

D104 unit including :	904.1104
- 1 RS232 crossed cable 9M-9M	(926.5524)
- 1 command connecting cable 4F-4F	(925.5601)
- 1 cable 1.2 '' (0.3m) 9M-9F (1 :1)	(925.5607)

Accessories

Order Nb.

- 1 foot pedal **904.4101**
- 1 cable 120 '' (3m) 9M-9F (1 :1) **925.5609**

« Booster » pow er supply including : **925.1150**

- 1 mains adapter according to country :
 Euro 230V (904.4010) || | US 120V (904.4012) |
| | UK 240V (904.4011) |
| | Japon 100V (904.4013) |
| - 1 connector « Booster » only | **925.1151** |

Note :

This User's manual is intended for the Eprom version 3.2 of D104- PC multiplexer.
The previous versions of D104-PC multiplexer can be updated from the serial number : **635**

Modifications reserved



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