3.3 TELELINE ISOLATOR MODEL #7501-03, #7501-03A

D.C. TRANSMISSION CARD

Positron's DC transmission card provides an isolated DC supply voltage to a device located outside the perimeter of the substation ground mat.

This card may be used for any application involving DC pulse signalling on dry pairs. The input/output response time of the card is approximately 1ms.

This card may also be used to provide an isolated DC source to power line conditioning equipment. This is particularly useful in cases where the end user is the owner of the isolation equipment and the associated telephone company has provided line conditioning or loop-back equipment which requires a supply voltage to operate. This feature enables both parties to establish a clear demarkation point. See figure 3.3.

A) TELELINE ISOLATOR MODEL #7501-03

This isolator card will transmit DC voltages in the range of 42VDC to 60VDC with a maximum continuous DC input current of 300mA and a maximum continuous DC output of 100mA. The card does not require input power from an ancillary power supply. The electronics are powered from the input voltage to the card, i.e. in order to obtain an output current of 60mA, the input current must be 260mA. Therefore, current consumption is 200mA.

B) TELELINE ISOLATOR MODEL #7501-03A

This isolator card will transmit DC voltages in the range of 105VDC to 150VDC with a maximum continuous DC input current of 300mA and a maximum continuous DC output current of 100mA. This card has a strapping option which permits the transmitted output voltage to be one half the input voltage. The current consumption for this version is the same as indicated for the model #7501-03.

3.3.1 SPECIFICATIONS — MODEL #7501-03

TRANSMISSION DATA

Applicable to D.C. transmission card, Positron #7501-03

Maximum D.C. Voltage	150 volts (#7501-03A) 60 volts (#7501-03)
Maximum continuous D.C. Output Current	100mA

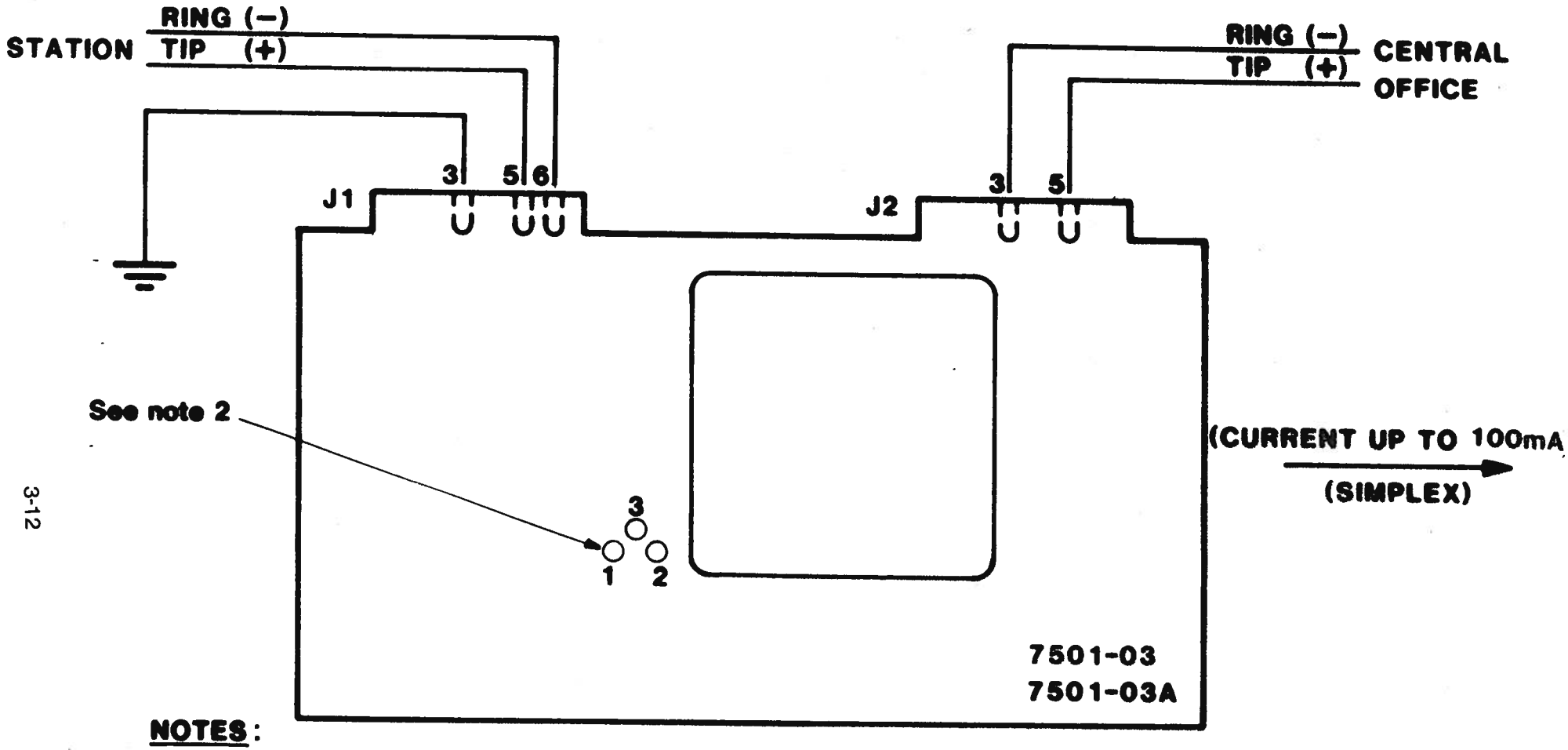
ENVIRONMENT DATA

MTBF	70 000 hrs.
Power Consumption	Operating power is obtained from the applied input signal. Card consumes 200mA. Iin = Iout + 200mA

POSITRON

D.C. INPUT VOLTAGE

D.C. TRANSMISSION CARD



NOTES:

FIGURE 3.3

1. Card is available in two options ; .1. 42 to 60Vdc input , 7501-03 .
   .2. 105 to 150Vdc input , 7501-03A .
2. Strapping option on 7501-03A only ; .1. (1-3) output voltage ≈ input voltage.
   .2. (2-3) output voltage ≈ 1/2 x input voltage.