Service data bulletin

Instrument: GDS101

Date: 23.03.2006
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SUBJECT: History of screen types on GDS101

LCD Screen types LM64P62 and LM64P63.
Above LCD's were used in 1993 and 1994, in serial numbers below 100.
These screens had a fixed MOLEX type ribbon cable which plugged into a MOLEX type connector J202 on the keyboard pcb.
Nominal value of R 207 on keyboard was 24 Kohm. R 207 controls the Contrast range.

LCD Screen type LM64P839.
Late 1994 a new and less bulky type screen was taken into use. This screen had a 16 pin MOLEX socket soldered to the screen. An ISOF type transparent flat cable connected the screen to J 202 on the keyboard.
Nominal value of R 207 on keyboard is 27 Kohm.

LCD Screen type LM64P83L.
LM64P83L came into use in 1997. This screen is identical to LM64P839.
1999: Effective from serial number 99951 the 16 Pin MOLEX socket and ISOF cable is not used.
A standard Cable ZZK-01023 is connected between the screen and CN4 on the CPU Board.
The CPU board is changed from separate CPU and VGA boards to the combined CPU/VGA type PCA-6135.
A separate wire is connected to minus 20 volt at JP200 on keyboard and another wire from CPU end of cable is connected to pin 5 on J203 Keyboard for ground.
R207 on keyboard has still 27 Kohm nominal value.

LCD Screen type LMG5278XUFC-00T.
In 2003, from serial number 031985, the above type screen is used.
Nominal value on R 207 on keyboard is 24 Kohm. On keyboards version "B" , it is possible to select 24 or 27 Kohm by inserting or removing a "link" on the pcb.(J205 pos 1-2.)
The screen cable is the same as for LM64P83L.
A molex type socket can not be connected to this screen.
Units with separate CPU and VGA pcb's can not use this screen.

TFT Screen Type LQ104V1DG51
In 2005, from serial no 052300 new screen with colour is introduced.
Keyboard ver B1. 24V from terminal board is now changed to 12V (terminal board vE4).
The onboard 24Vto High voltage inverter is not used. A 12V plug is soldered into the board.
A separate 12V to High voltage inverter is installed between keyboard and screen.
On keyboard ver D, all unused components are removed.