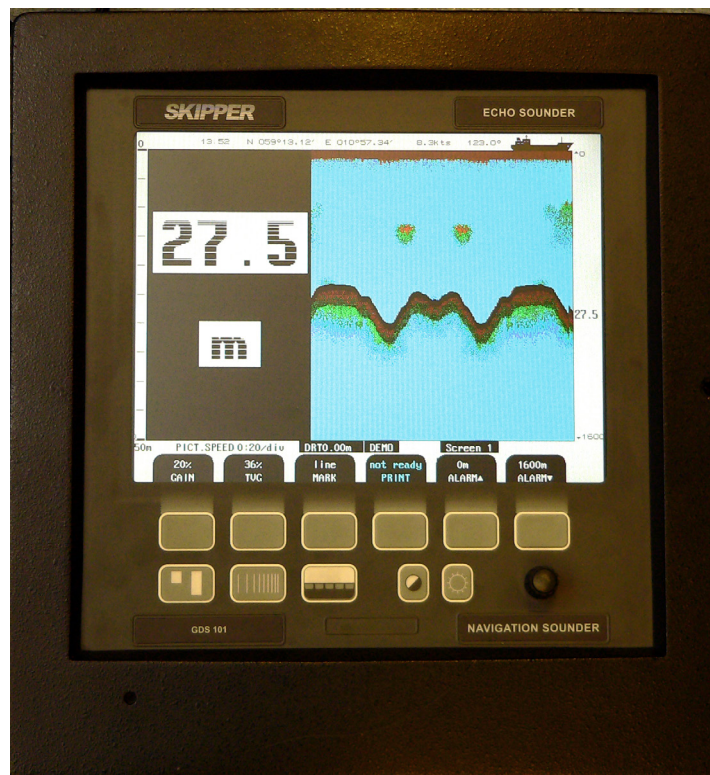


SKIPPER

Instructions for upgrade of GDS101C to CPU PCA-6742 from CPU PCA-6135.

Upgrade kit Part no: SA-G142
Rev 1132A



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Introduction

This document describes how to upgrade a faulty CPU unit PCA-6135 to the newer generation PCA-6742. In addition to the CPU change, a number of other improvements are included.

This kit (SA-G142) contains:

Part nr.	Revision	Description	Number of
PI-G032	D8A	PCB I/O board FOR GDS101 for CPU 6742	1
PC-C053	0836A	PCB CPU 6742VEF Setup ready. Bios 1.12 No Flash card.	1
ZZK-01076	0847A	Cable screen PCA 6742.	1
SA-G145*	1119A	CPU plate for upgrade kit with passive parts mounted.	1
DI-G002-SA	1132A	Installation manual. (The one you are reading now).	1
MB-G001		Bootable SW module for GDS101. (Placed on CPU PCB).	1

*SA-G145 consists of the following parts:

Part nr.	Revision	Description	Number of
ZZZ-030023	D	Flash card reader MESA.	1
PM-G002	B11A	PCB Motherboard GDS - Tested.	1
ZZZ-030019	1037A	Flash Card Industrial Standard.	1
ZZK-01084	1042A	Flat cable for Flash Card reader (IDE) GDS101.	1
ZZK-01074	1050A	Power cable 5/12V.	1
ZZK-01081	0908A	Bus cable GDS101 I/O-J100 - MOTH/J100 2nd edition.	1
ZAA-01139	05A	Computer Plate GDS PL-8013. Holes for MESA card.	1

- If the system boots but does not detect the bottom, try the I/O card alone.
- If the unit freezes, try removing and reseating the PCA-6135 card. In some cases the motherboard can corrode causing bad connections. If this is the case, only the motherboard needs replacing.
- In other cases, the full procedure will need to be followed. Make careful notes of where cables come from and go to, and ensure the DIL (Dual In Line) plugs are properly seated. (See appendix 1, appendix 2 and appendix 3 for more details).

The newer CPU's software are much simpler to upgrade. This is done using the Compact Flash disk on the new plate.

Tools needed for this upgrade are :

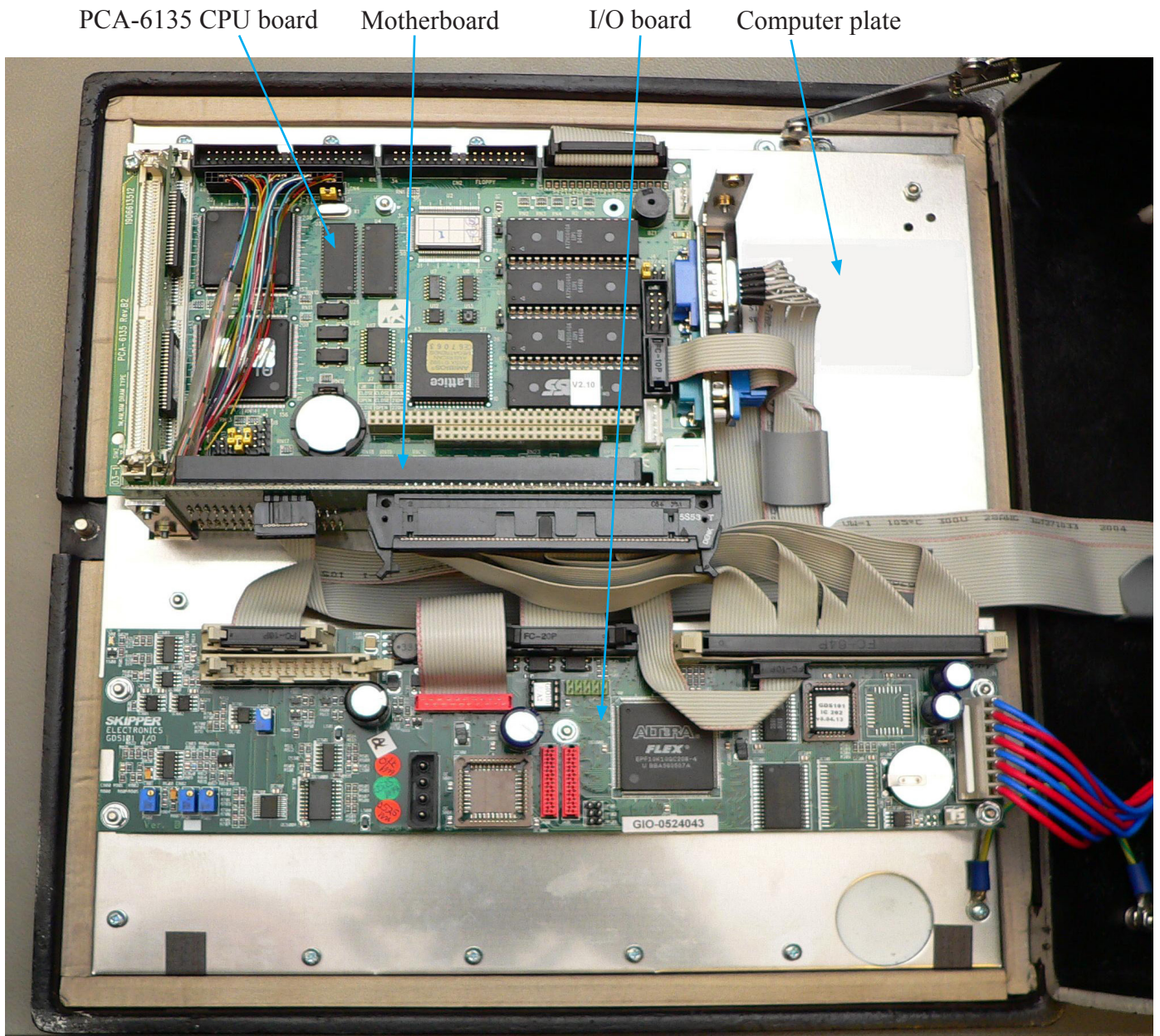
- *Philips X screwdriver (PH1x80)*
- *5,5 mm pipe spanner*

Step 1. Locate the different parts

Open the cabinet and take a overview of the electronics. In the door, you can see:

- The PCA-6135 CPU board in the top.
- The motherboard in the middle.
- The I/O board below.

The aluminium computer plate, motherboard, CPU and the I/O board need to be replaced in this upgrade.

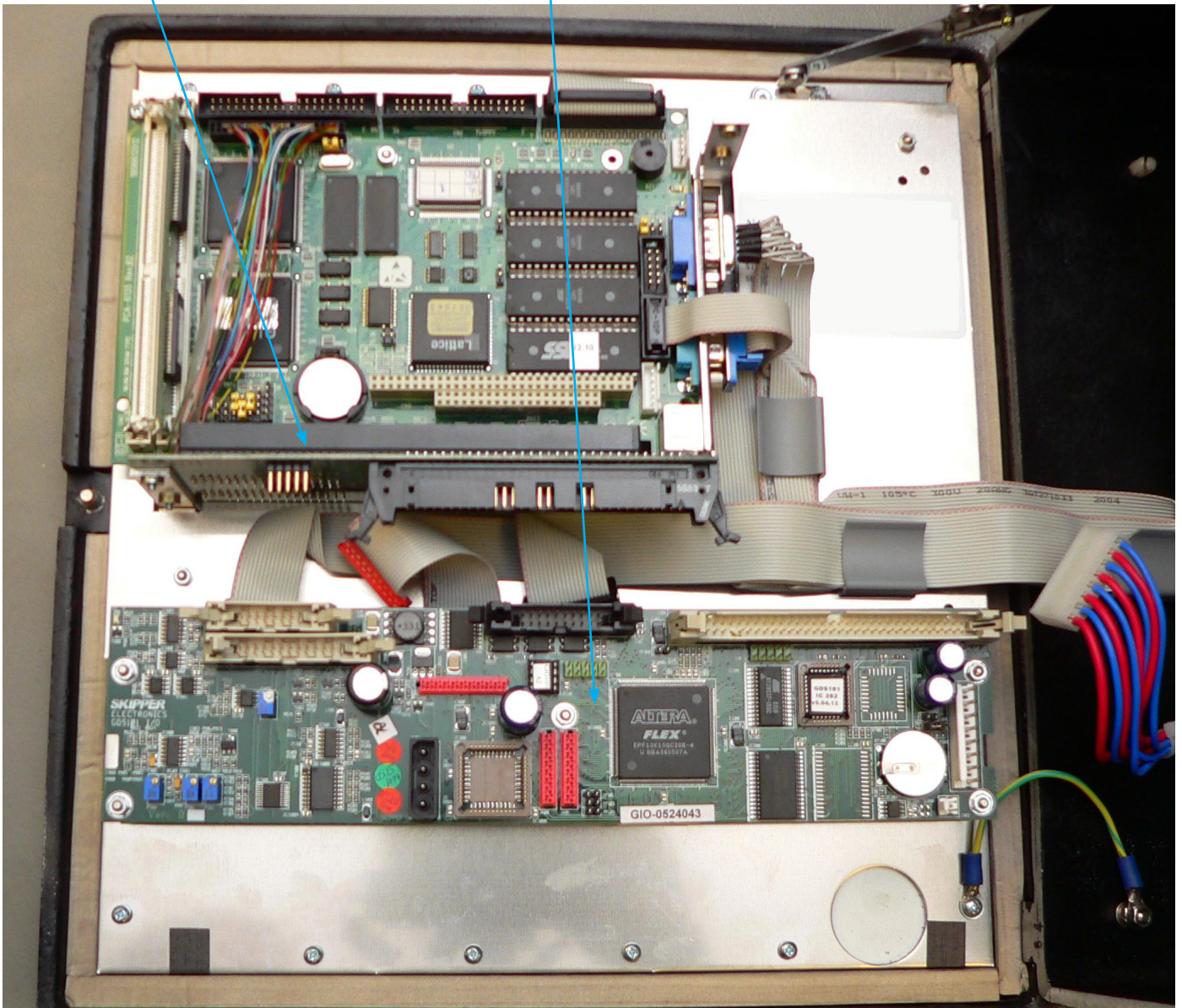


Step 2. Remove/loosen cables

- Remove/loosen all cables from I/O board and motherboard.

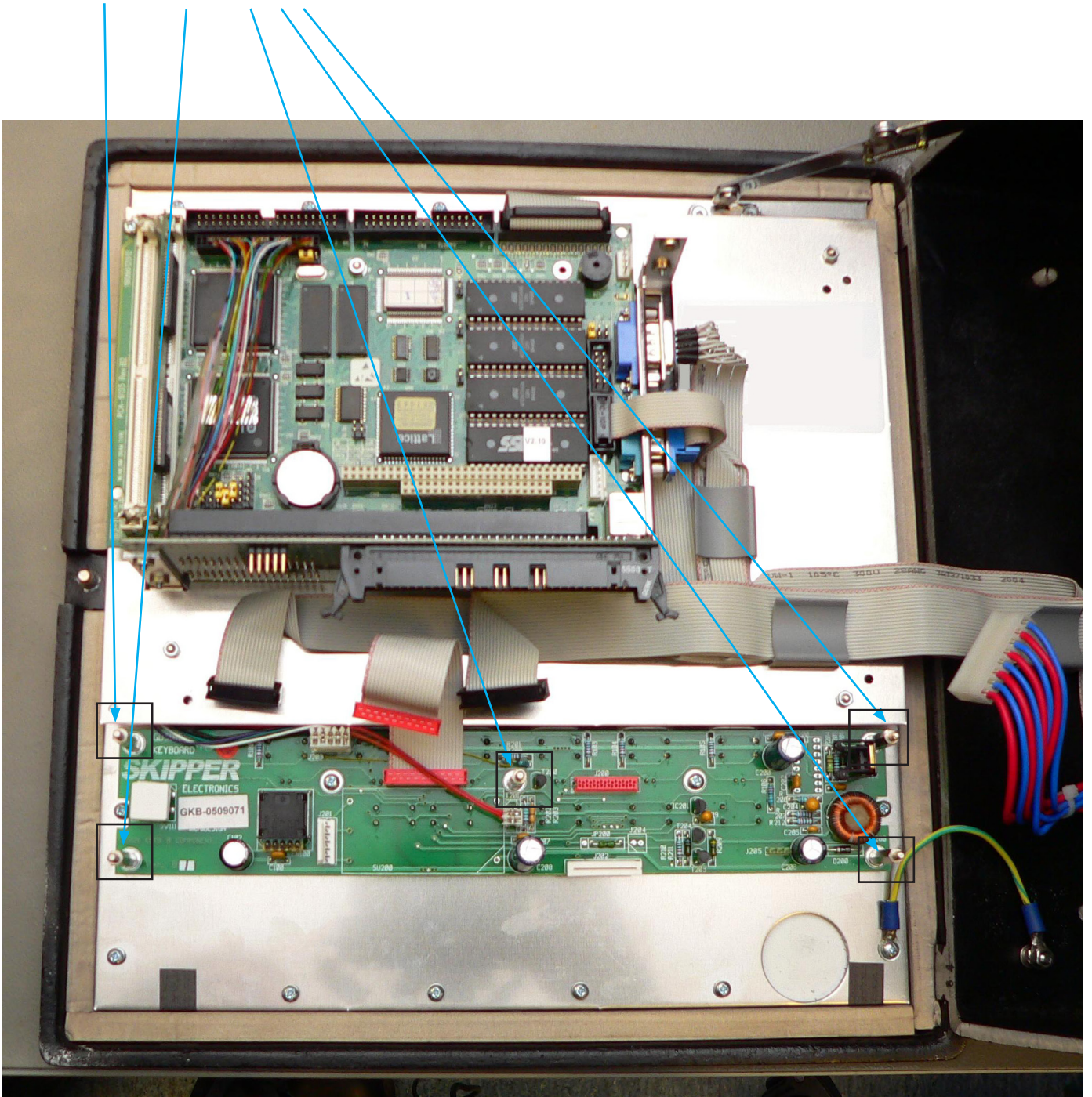
Motherboard

I/O board



Step 3. Remove the old I/O board

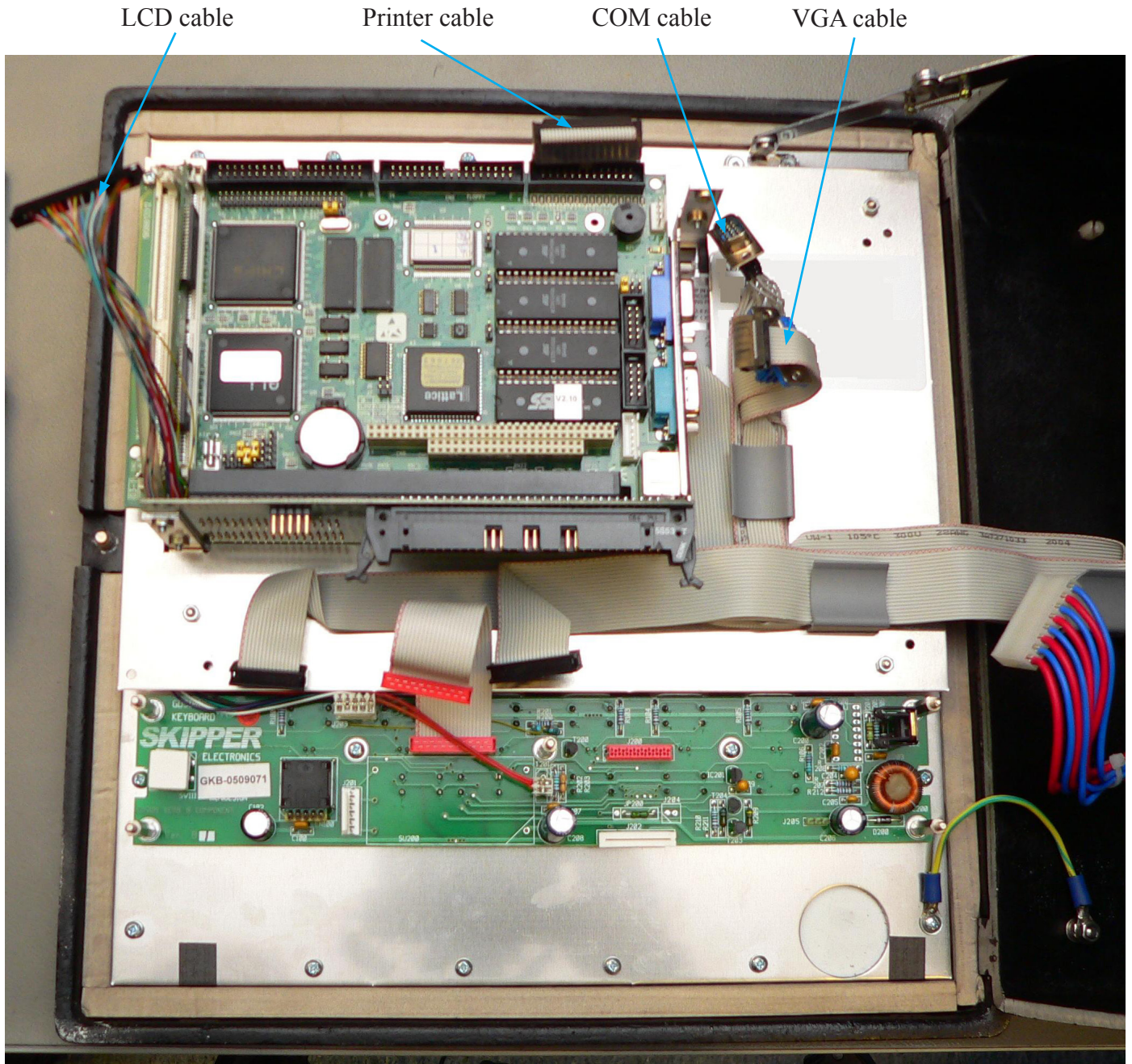
- Remove the old I/O board (5 nuts).



Note: Picture is taken after board removal.

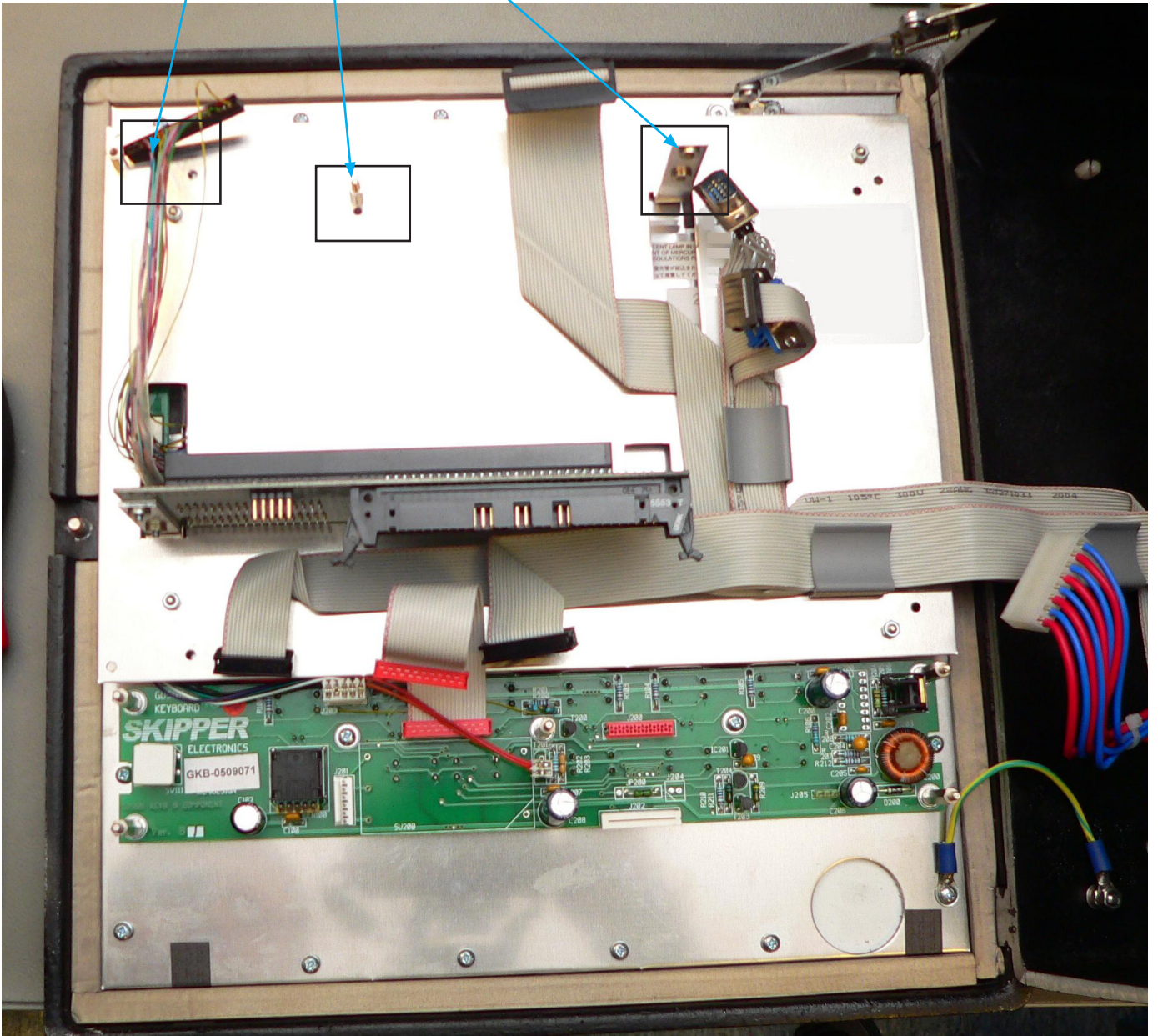
Step 4. Loosen all cables from the CPU board

- Loosen the LCD, printer, COM and VGA cables from the CPU board.



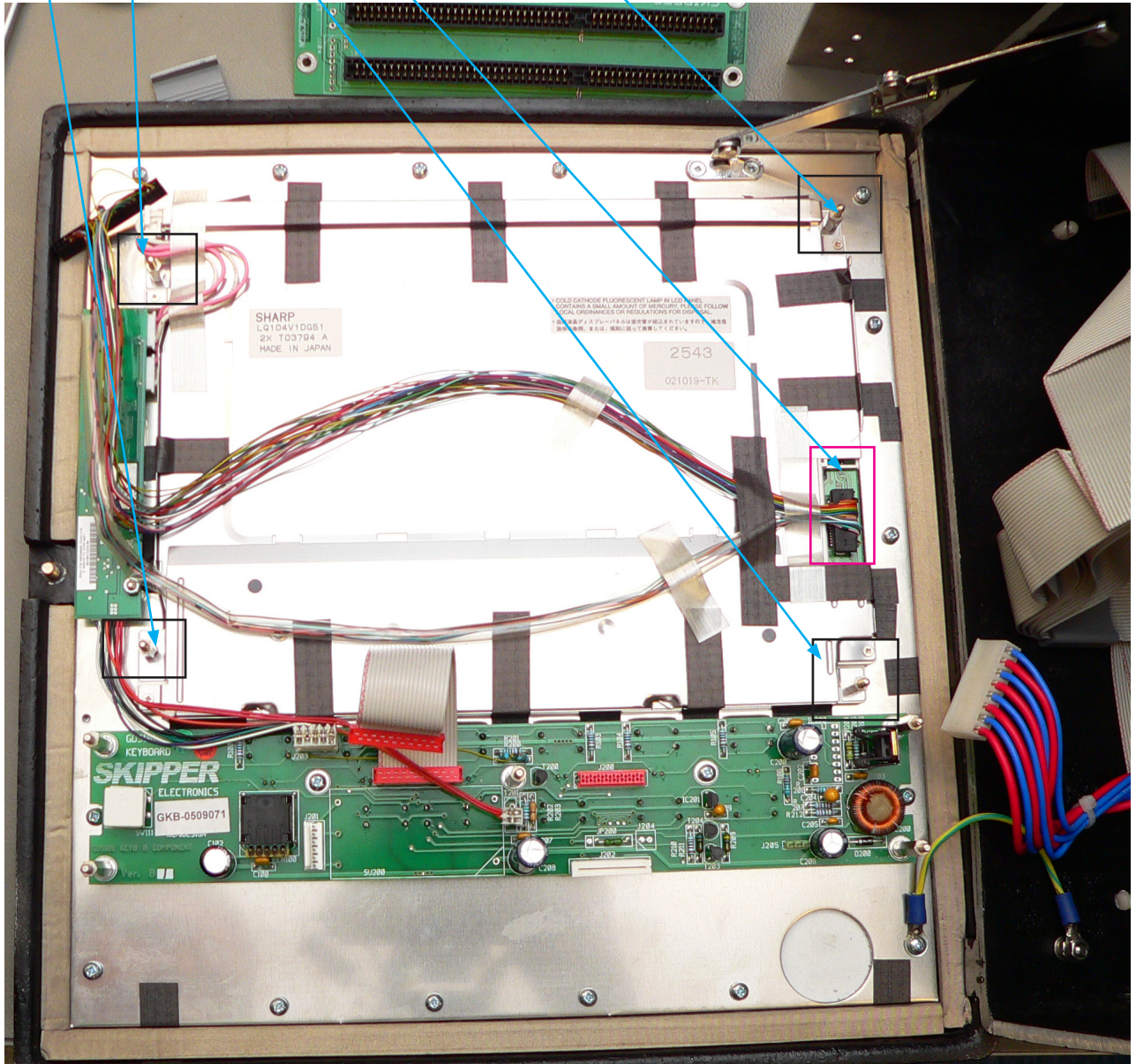
Step 5. Remove the old CPU board

- Remove the old CPU, (2 screws and 1 nut).



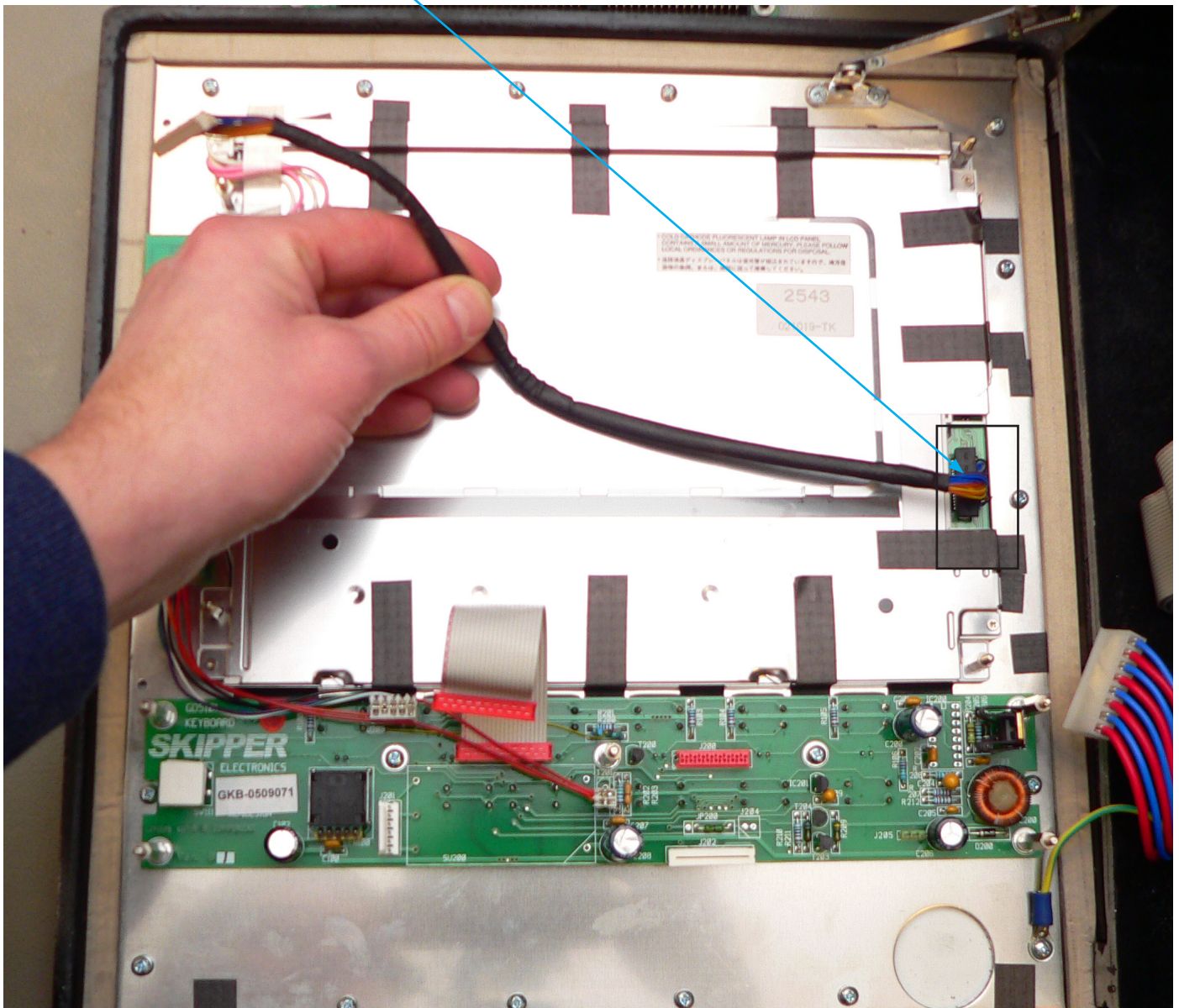
Step 6. Remove the old computer plate and display cable

- Remove the aluminium computer plate from the door (4 nuts).
- Remove the old display cable.



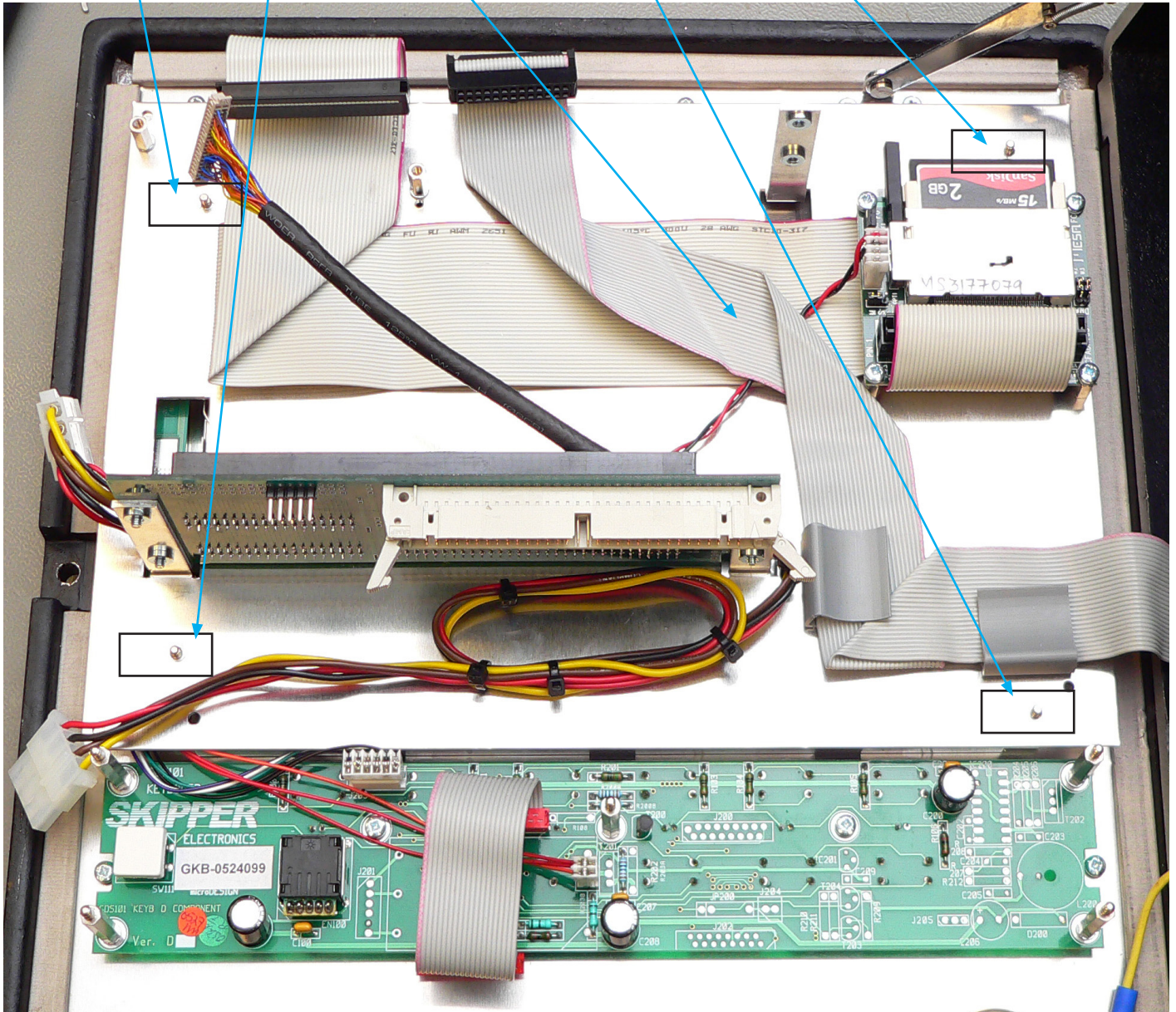
Step 7. Connect the new display cable

- Connect the new display cable.
- Put the cable through the hole in the new aluminium computer plate.



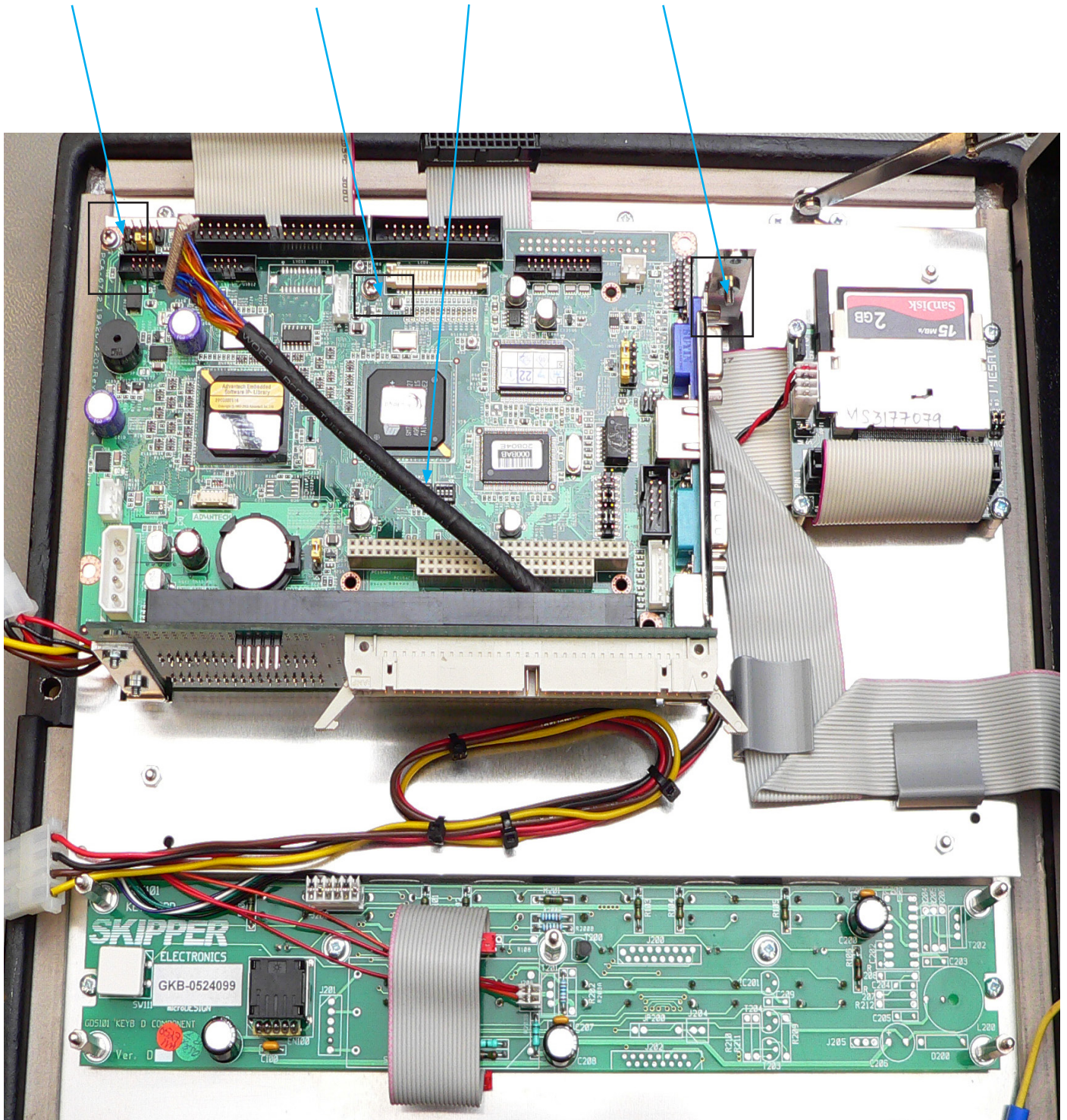
Step 8. Attach the new computer plate

- Attach the new aluminium computer plate and secure with 4 nuts.
- Bend the flat cable as shown and place in cable clamp.



Step 9. Attach the new CPU board

- Attach the new CPU in its socket and secure it with 3 screws.
- Make sure that the new display cable comes up on top of the new CPU board.



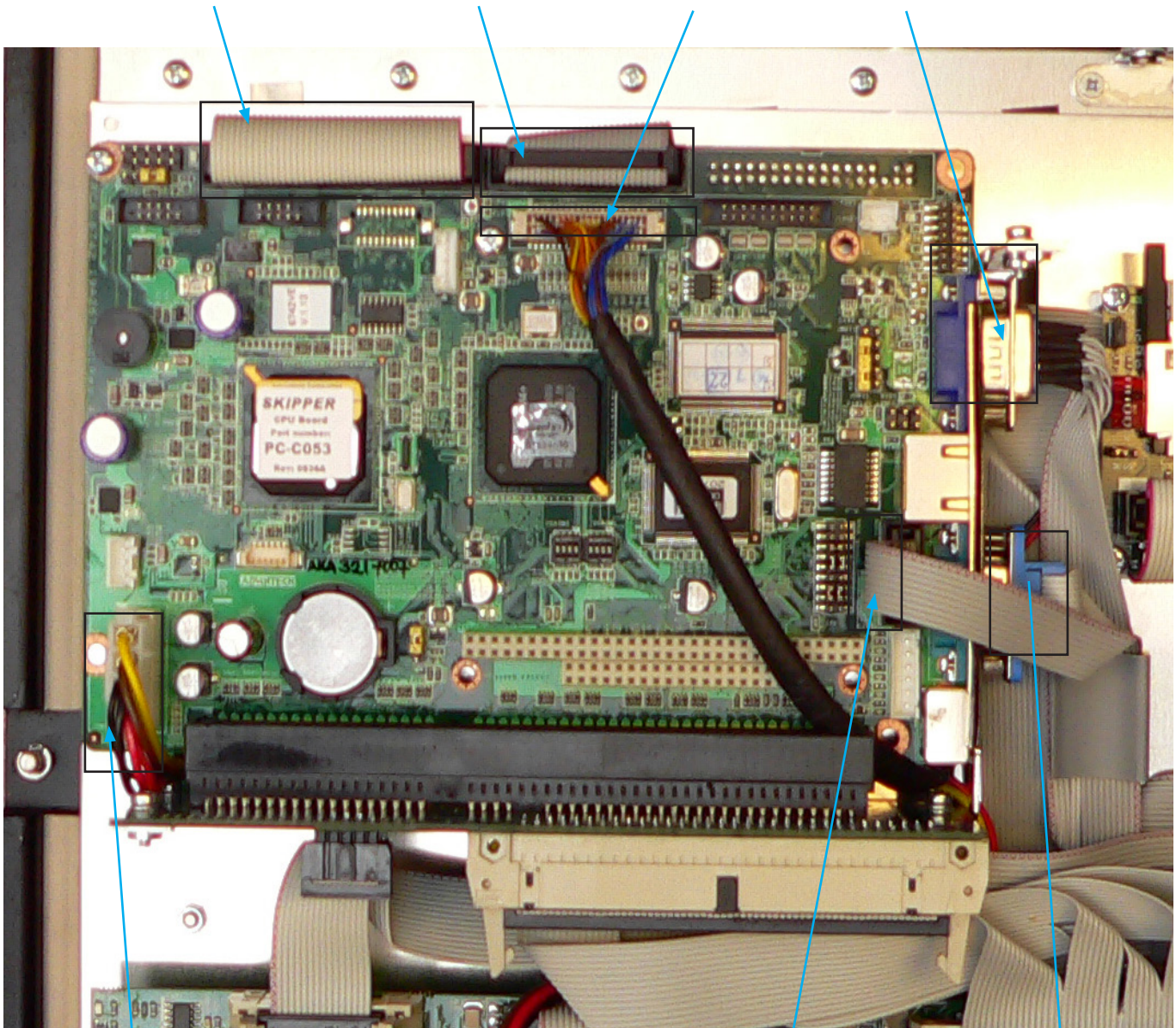
Step 10. Connect the cables to the new CPU board

Connect the cables to the new CPU.

1. Printer cable to connector LPT1.
2. Cable from Mesa board to connector IDE1.
3. Power cable to connector PWR1.
4. LCD cable to connector LCD1.
5. VGA cable to connector VGA1.
6. COM1 cable to connector COMD1.
7. COM2/RS-232 cable to connector COM2.

Note: See appendix 2 and 3 for additional details.

2. Mesa board cable 1. Printer cable 4. LCD cable 5. VGA cable



3. Power cable

7. COM2/RS-232 cable

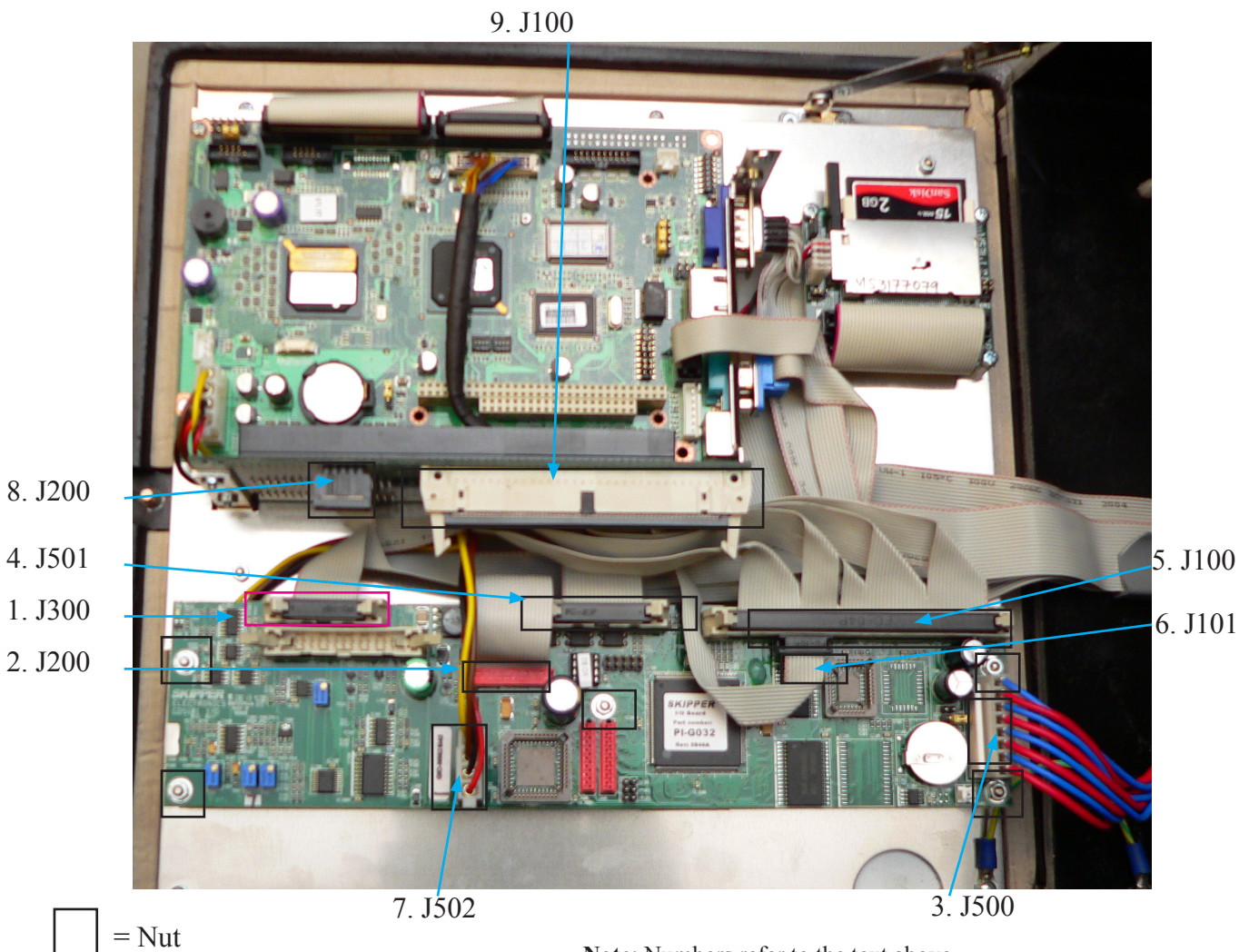
6. COM1 cable

Step 11. Connect the new I/O board and the remaining cables

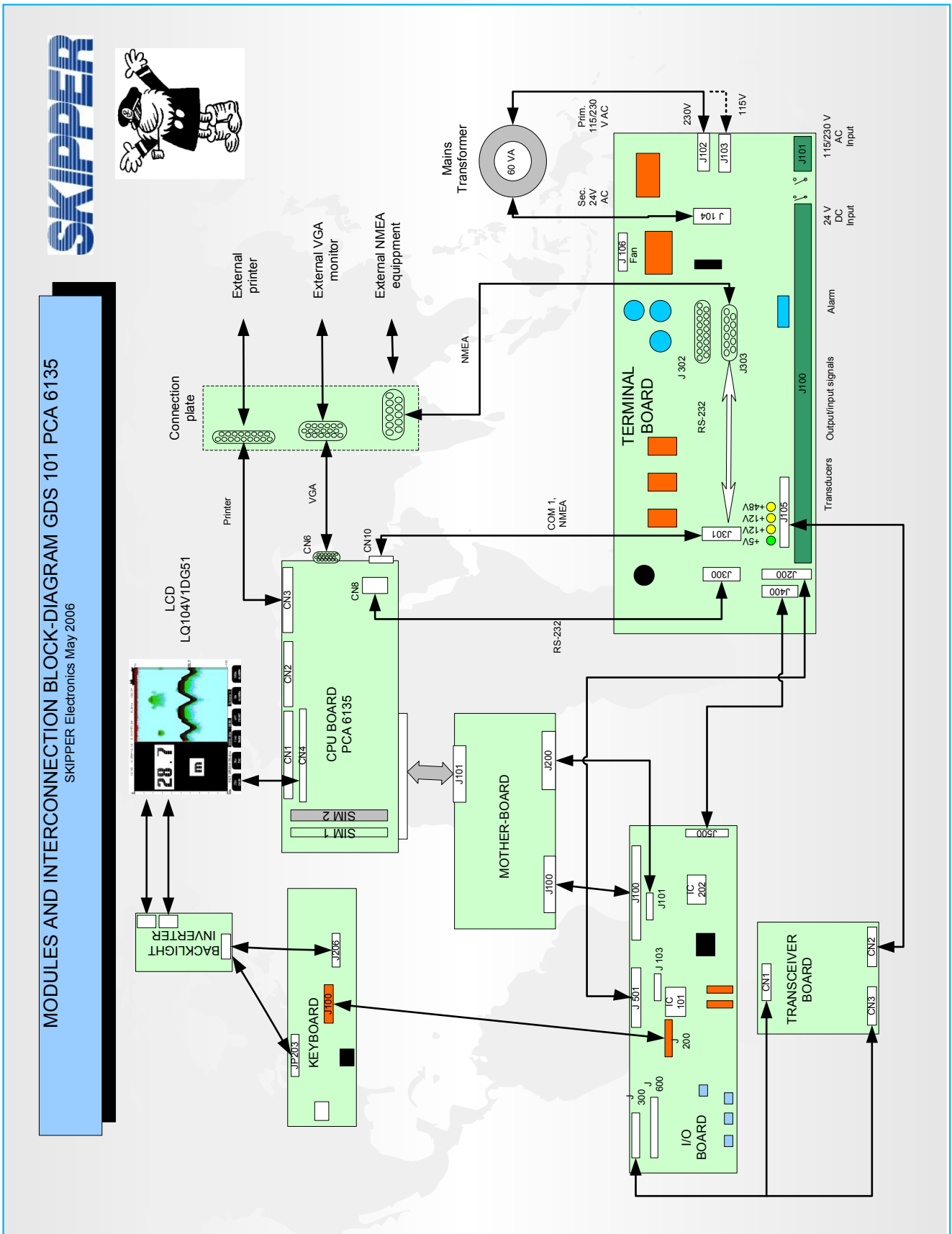
- Mount the new I/O board in the door and secure with 5 nuts.
- Connect the cables to the I/O board and motherboard again. (**Note:** See appendix 2 for more details).
 1. Transceiver board cable to connector J300 on I/O board.
 2. Keyboard cable to connector J200 on I/O board.
 3. Terminal board cable to connector J500 on I/O board.
 4. Terminal board cable to connector J501 on I/O board.
 5. ISA bus cable to connector J100 on I/O board.
 6. Motherboard cable to connector J101 on I/O board.
 7. CPU/Power cable to connector J502 on I/O board.
 8. IRQ cable to connector J200 on motherboard .
 9. ISA bus cable to connector J100 on motherboard.

Note: Take particular care with the DIL connector on the IRQ cable (9) on motherboard connector J200. The connector should line up on the right side.

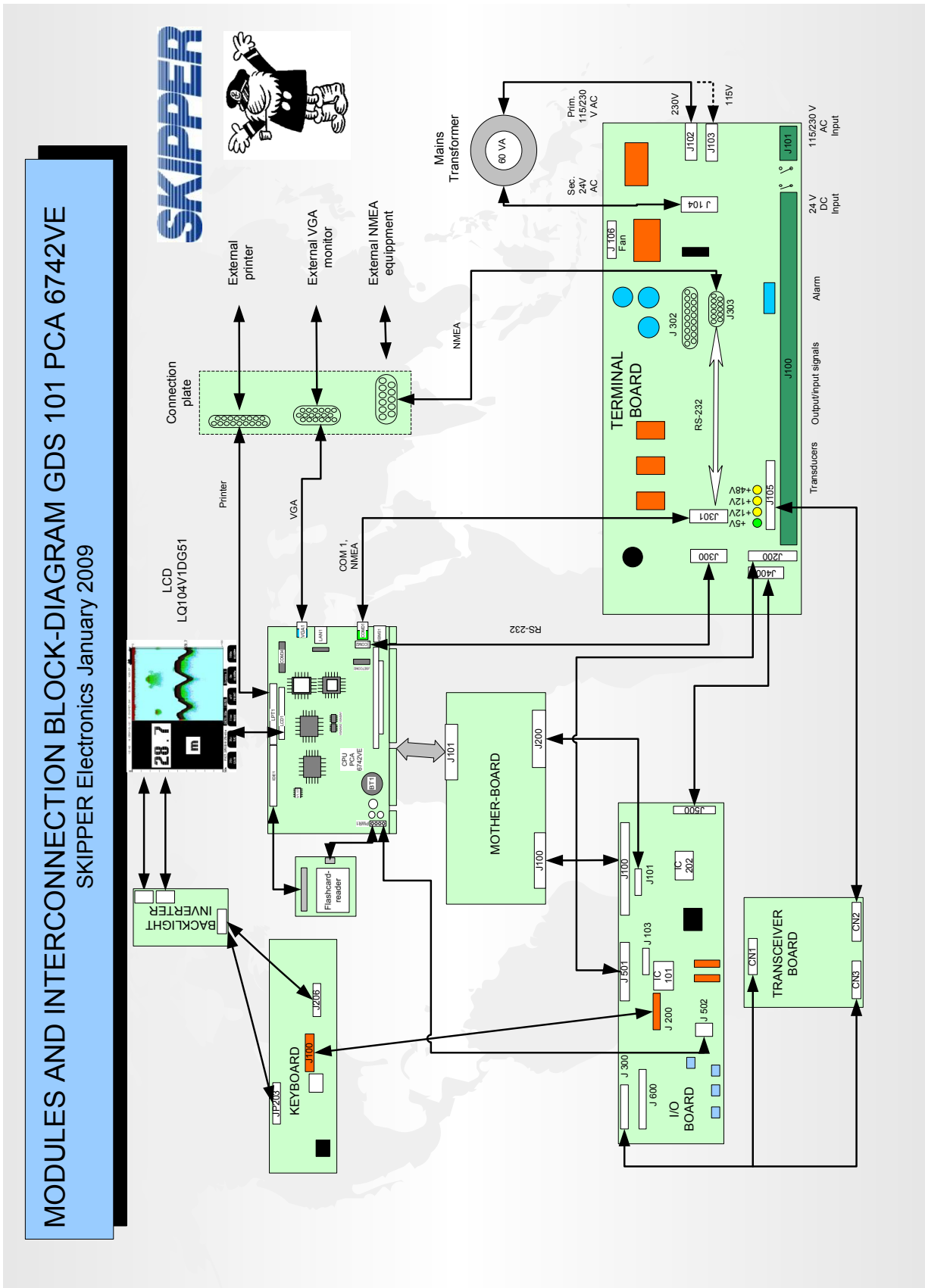
- The unit may now be restarted.



Appendix 1. GDS101 with old PCA-6135 CPU board



Appendix 2. GDS101 with new PCA-6742 CPU board



Appendix 3. PCA-6742 CPU board connector locations

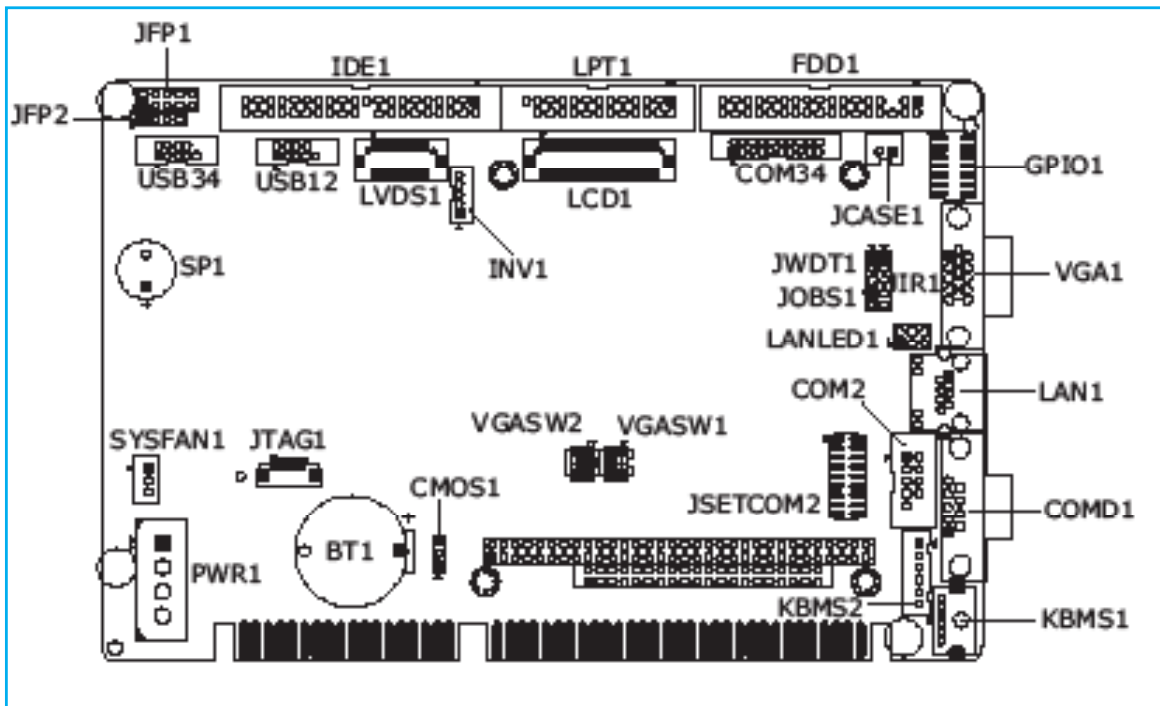


Figure 2.1 Jumper and Connector Locations (component side)

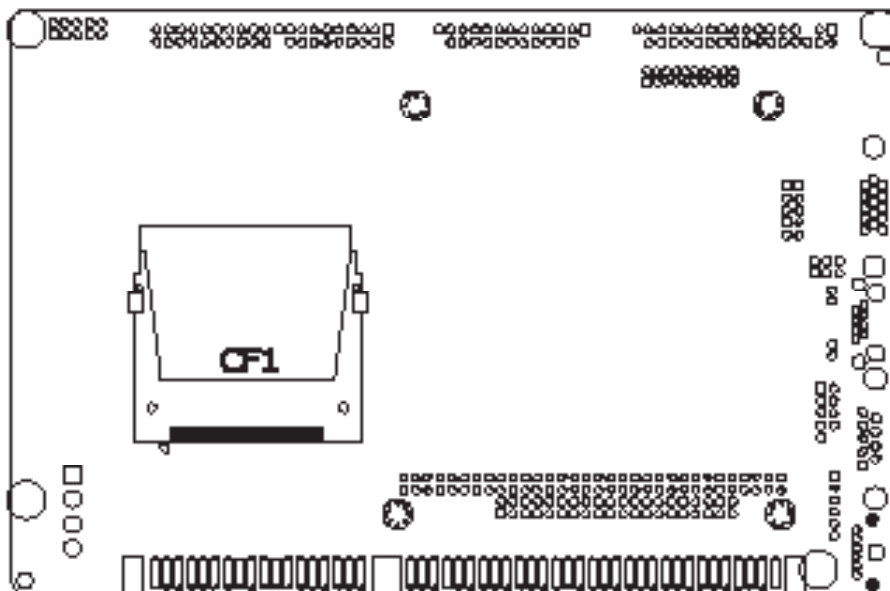


Figure 2.2 Jumper and Connector Locations (solder side)

Note: Drawing taken from PCA-6742 user manual.