Instructions for upgrade of mono GDS101 to CPU PCA-6742VE from CPU PCA 6135.

Upgrade kit Part no: SA-G144
Rev 1046A

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CONTENTS

INTRODUCTION

This document describes how to upgrade a faulty GDS101 (with serial number 001250- 05XXXX) mono display cabinet (without internal printer) with faulty CPU board PCA 6135, to the newer generation PCA 6742VE CPU board. In addition to the CPU change, a number of other improvements are included. Because the CPU is not totally compatible in mounting, a number of extra modules must be changed.

WARNING! *By replacing the old I/O and CPU board, you will loose the current settings of your device. If possible, you should write down the following values:*

- **Outputs settings (NMEA and digital/analogue).**
- **Power setting.**
- **Transducer positions and low frequency (if not 38kHz adapted).**

All other settings will be set to default values, so these may need adjusting once in operation.

This kit (see fig. 1) contains:

Item no	Part no	Revision	Description	Number Of
1	PI-G032	0848A	PCB I/O board for GDS101 version D mono/colour.	1
2	PC-G003	1007A	PCB CPU 6742VE for GDS101 mono, with Compact Flash (CF) and software (sw).	1
3	SA-G145	1047A	Computer plate assembly with cables.	1
4	ZZK-01086	1004A	Display/LCD cable mono screen for PCA 6742VE.	1
	DI-G001-SA	20101120	Instruction manual. (The one you are reading now).	1

Make careful notes of where cables come from and go to (se appendix 1 and 2), and ensure the cable plugs are properly seated. The new CPU software is much easier to upgrade. This is done by using the Compact Flash on the new CPU board.

NOTE: Units before serial number 001250, (internal printer) can not be upgraded with this kit.

Tools needed for this upgrade ,are :

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

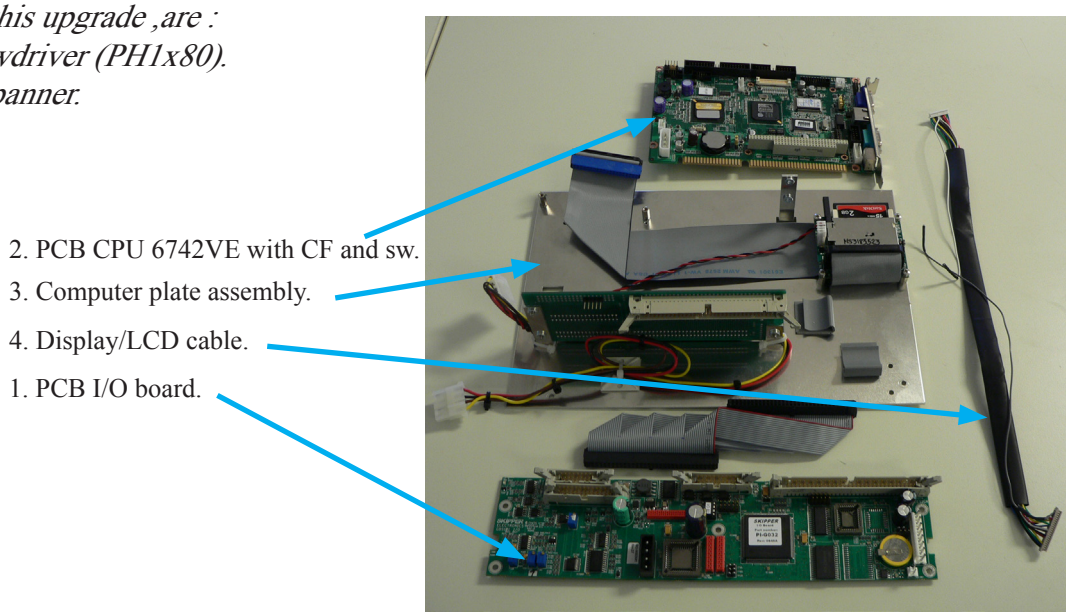


Fig. 1. Kit content

STEP 1. LOCATE THE PARTS

Open the cabinet and take a overview of the electronics. You can see in the door:

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

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

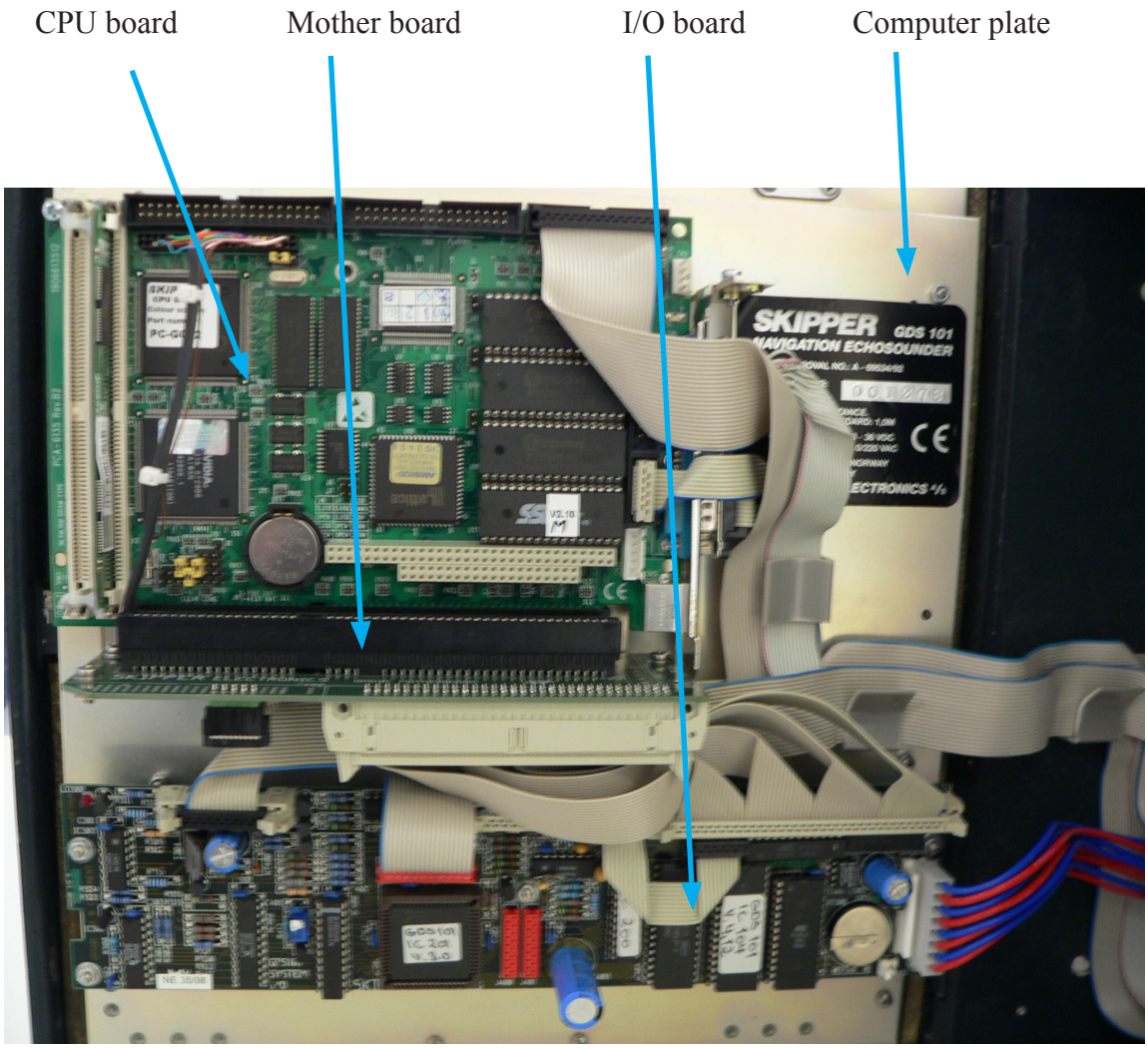


Fig. 2. Component location.

STEP 2. REMOVE/LOOSEN CABLES

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

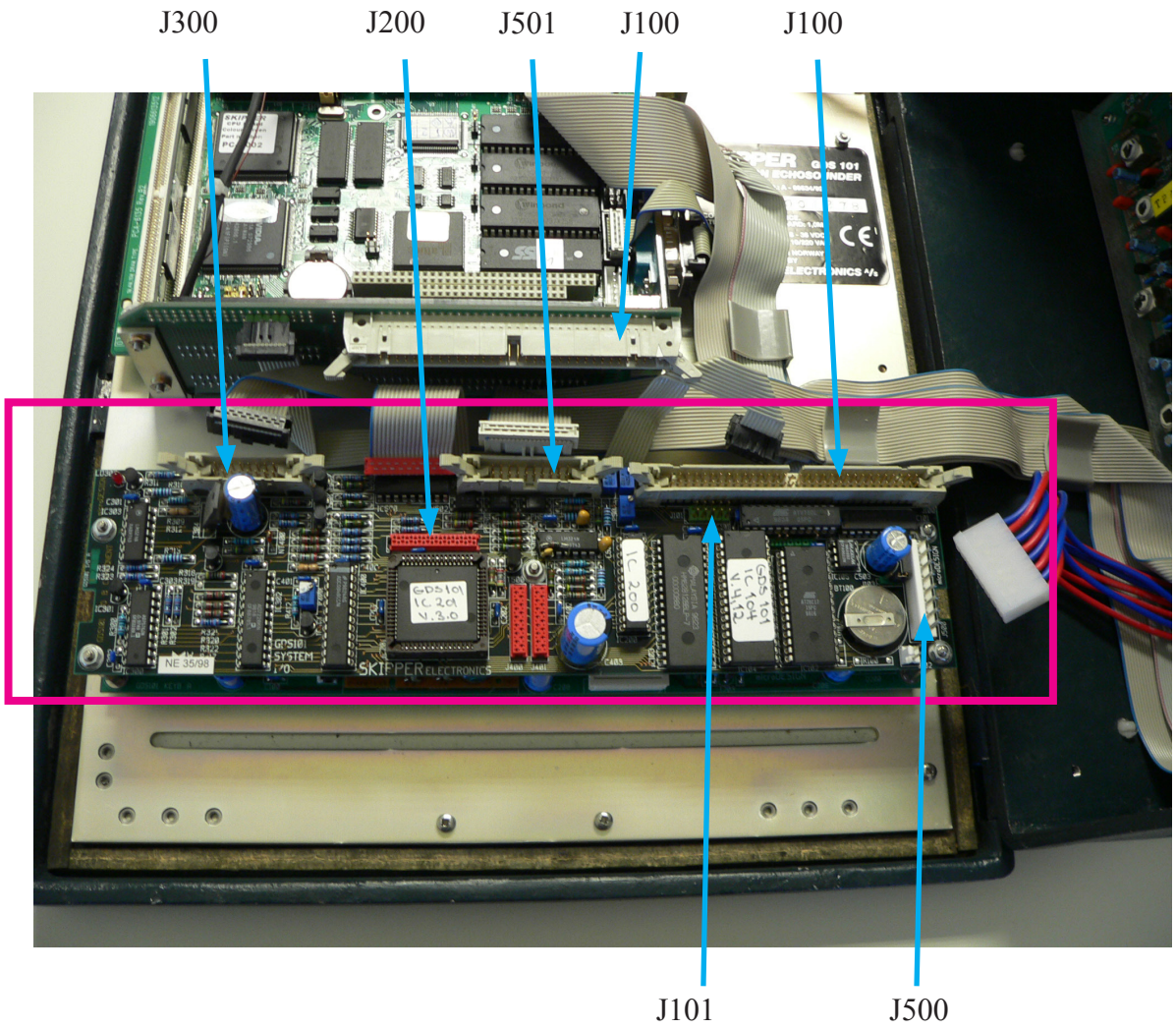


Fig. 3. Loosening cables.

STEP 3. REMOVE OLD I/O BOARD

- Remove the old I/O board (5 nuts).
- Keep the encoder flat cable for re-use in step 11.

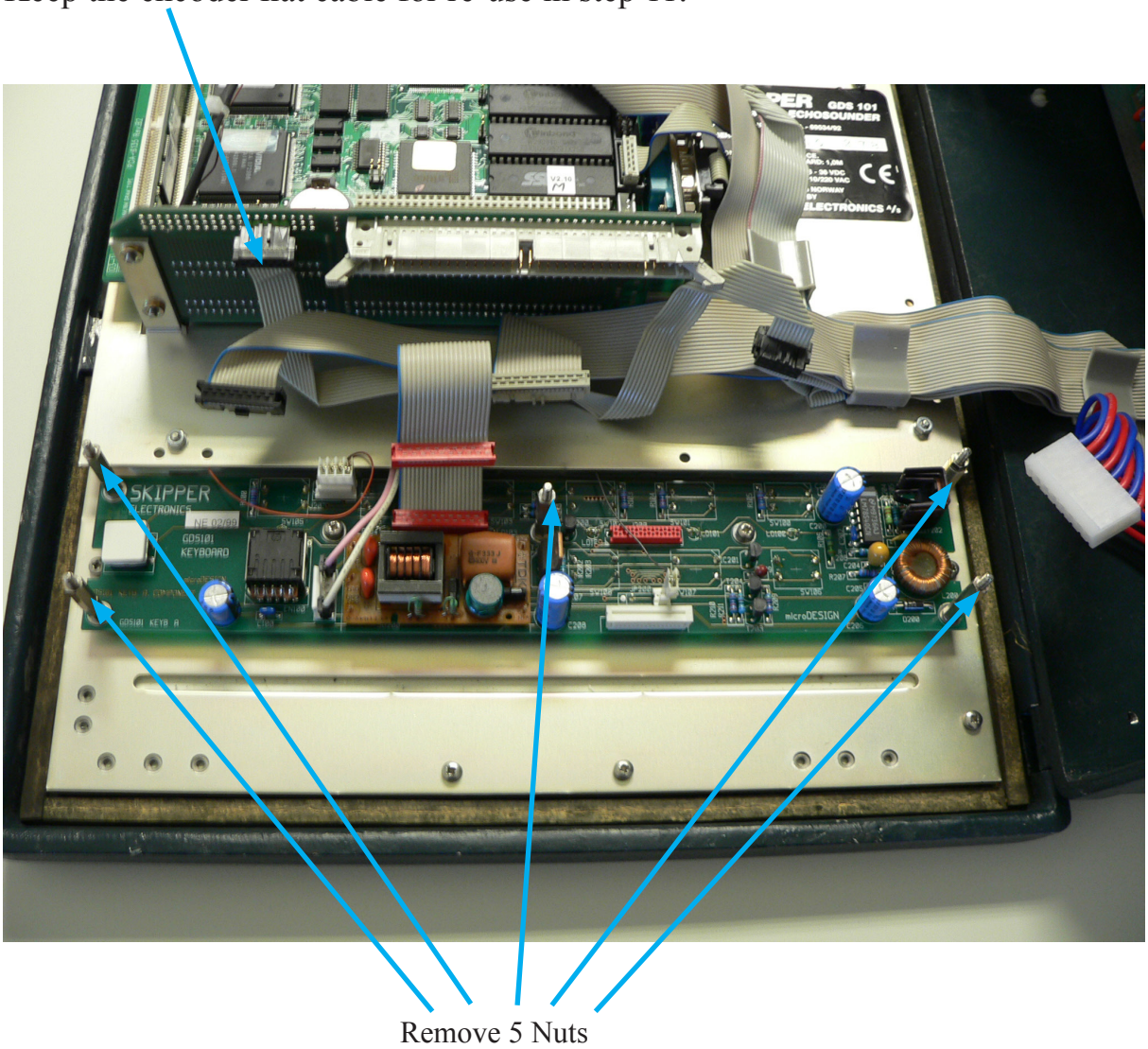


Fig. 4. Removing old I/O board
(**Note**: Picture taken after board removal)

STEP 4. LOOSEN CABLES FROM THE OLD CPU BOARD

- Loosen all the cables from the CPU.

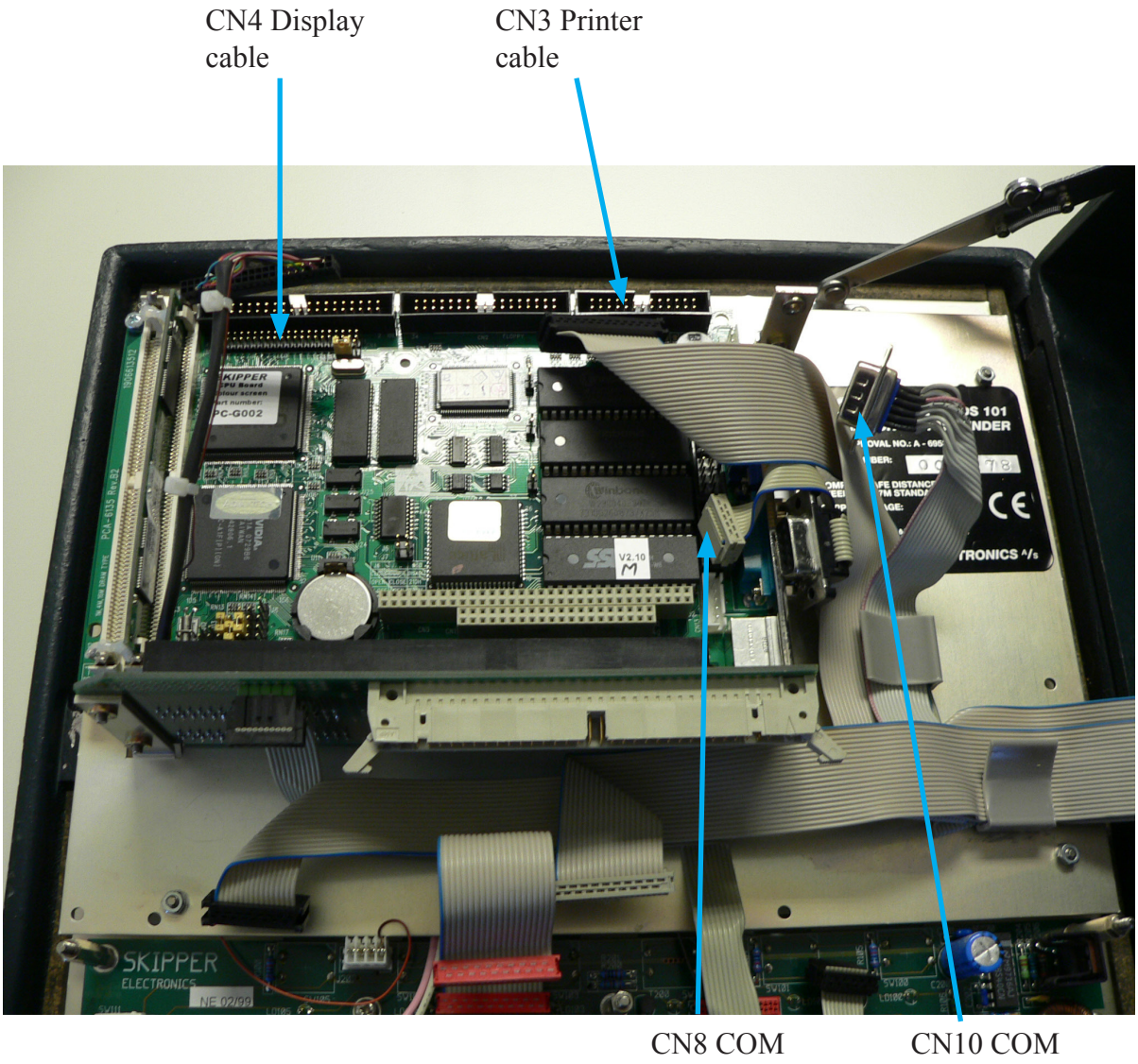


Fig. 5. Loosening cables from the old CPU board

STEP 5. REMOVE OLD CPU BOARD AND COMPUTER PLATE

- Remove the old CPU (2 screws).
- Remove the aluminium computer plate from the door (4 nuts).

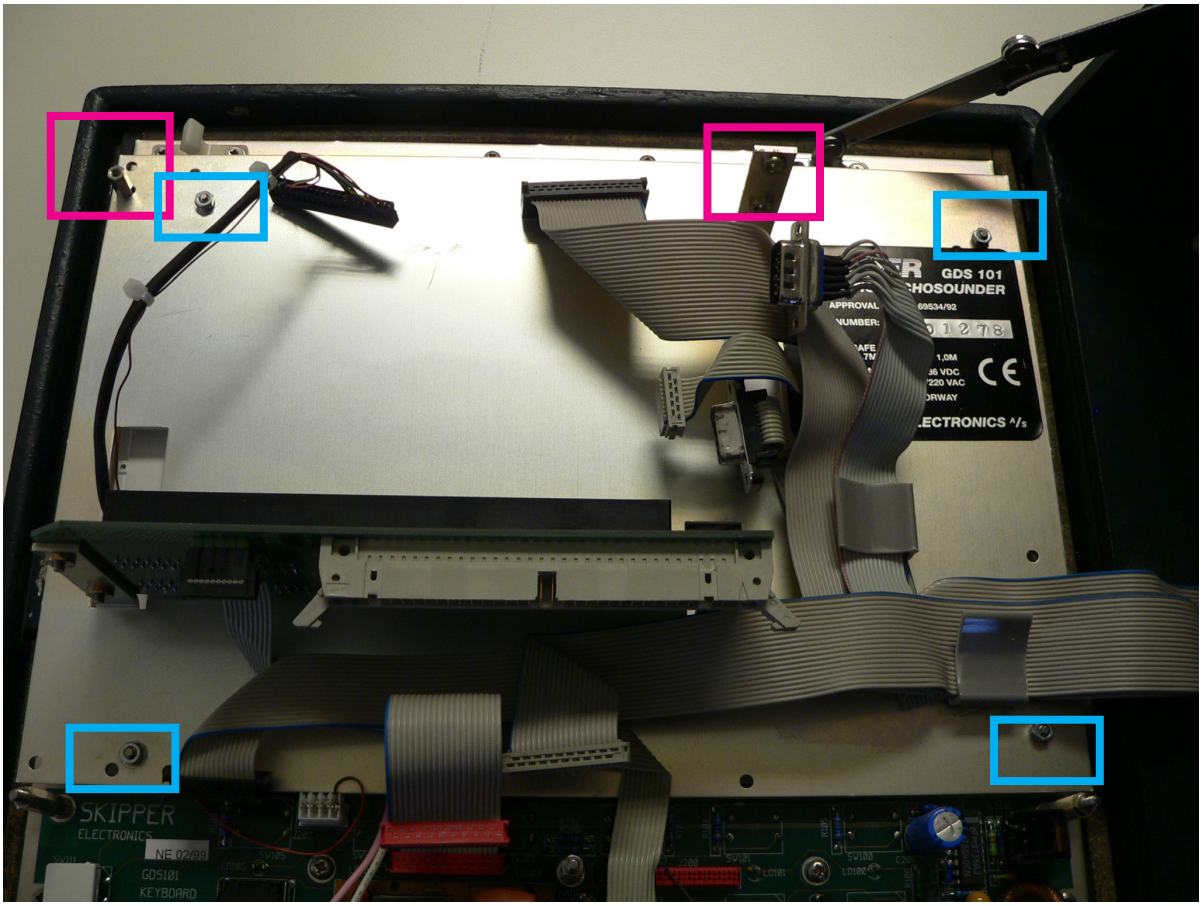


Fig. 6. Removing old CPU and computer plate.

STEP 6. REMOVE OLD DISPLAY CABLE

- Remove the old display cable.

IMPORTANT: Take particular care when removing tape from the old display cable as stress on the back of the screen can damage the backlight of the screen. Use a scalpel to carefully cut the tape.

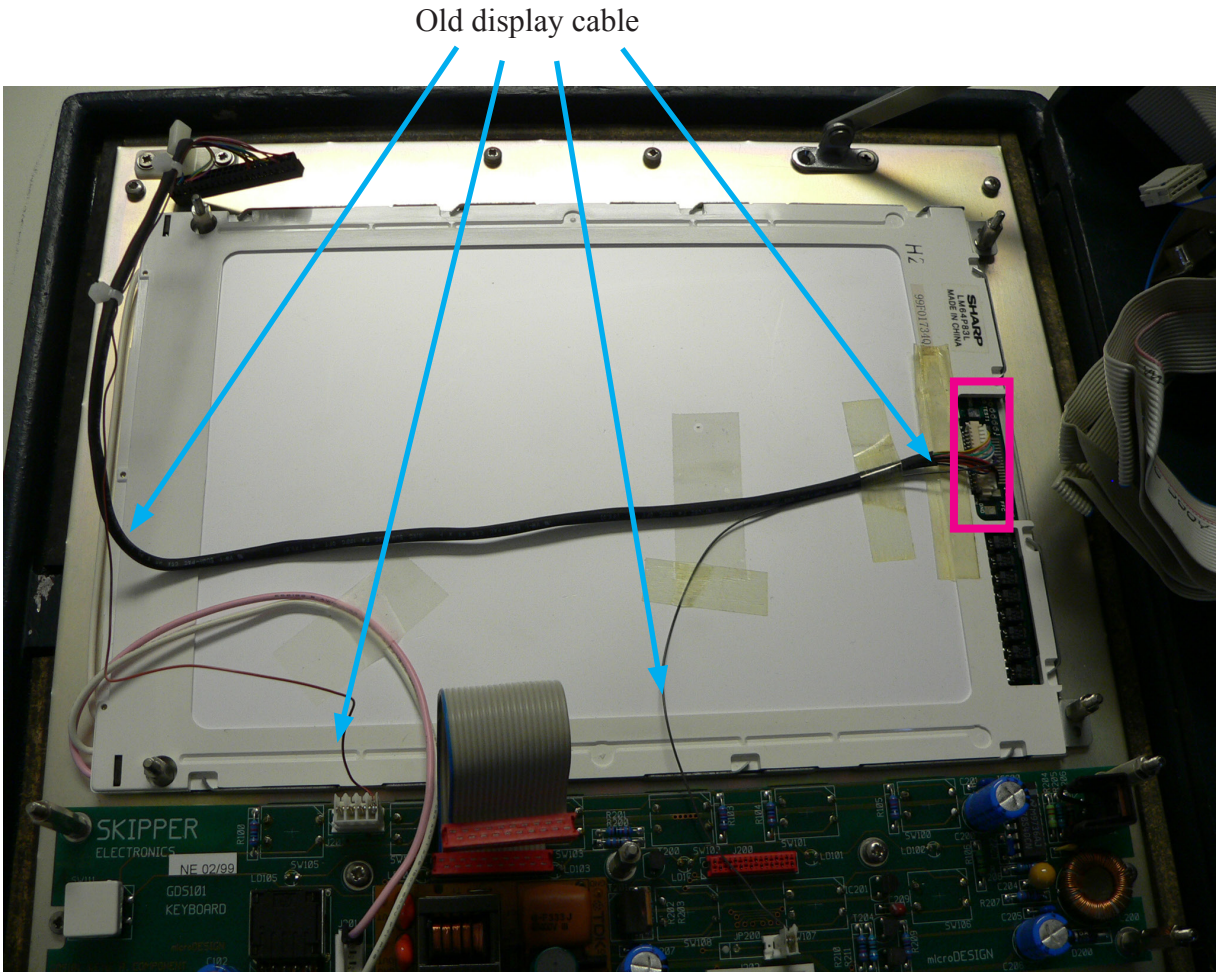


Fig. 7. Removing old display cable.

STEP 7. MOUNT NEW DISPLAY CABLE

- Mount the white cable on the right hand side of connector J204.
- Attach the new display cable, put it through the hole of the new aluminium computer plate, as showed in the next picture.
- Place a small piece of tape to hold the display cable and plug in place.

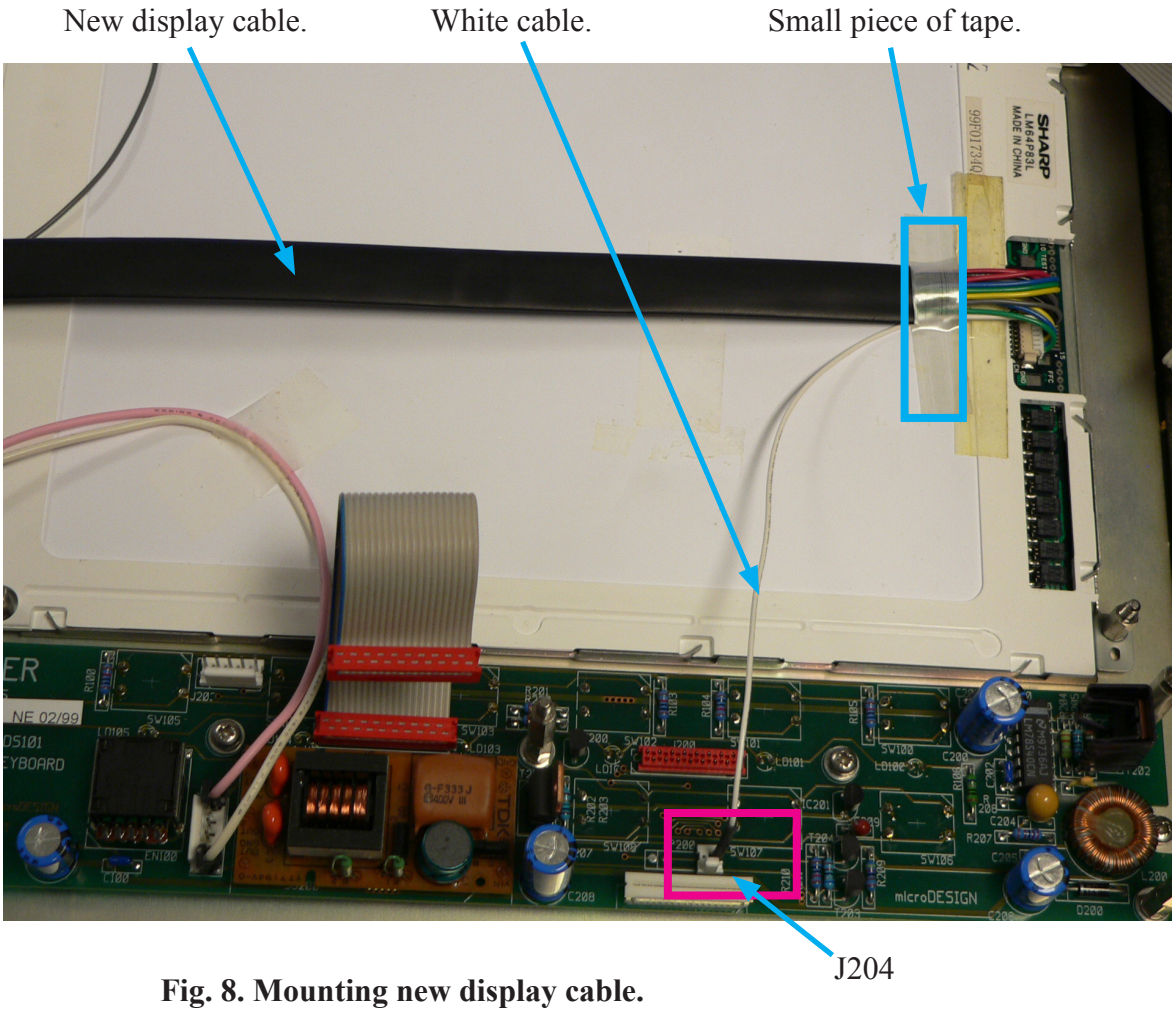


Fig. 8. Mounting new display cable.

STEP 8. ATTATCH NEW CPU PLATE

- Attach the new aluminium computer plate, secure with 4 nuts.
- Thread the new display cable through the hole in computer plate.

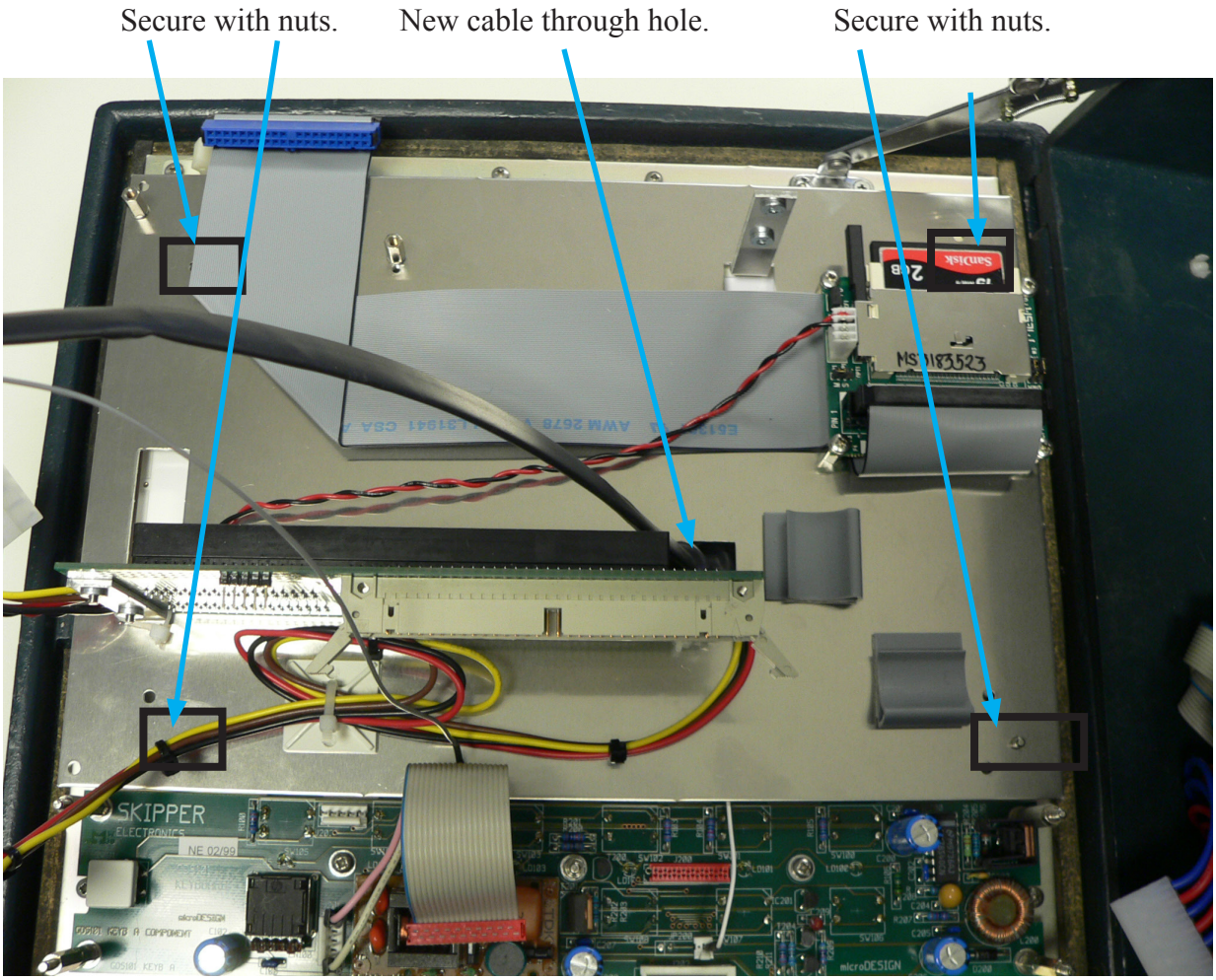


Fig. 9. Attaching new computer plate.

STEP 9. ATTACH NEW CPU BOARD, LCD AND COM CABLE

- Attach the new CPU board in socket and secure with 3 screws.
- Attach the LCD cable connector.
- Connect the two COM cables.

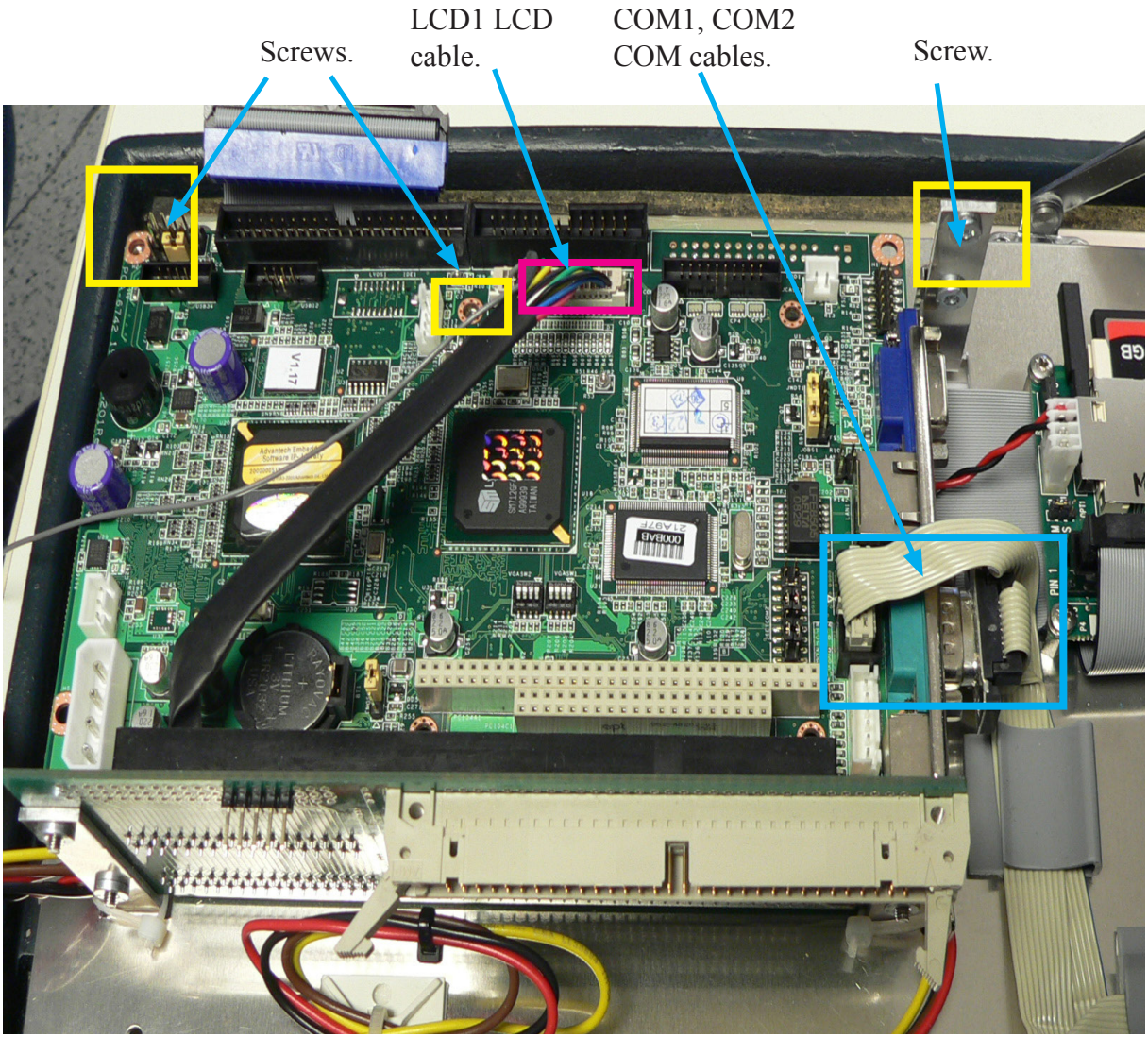


Fig. 10. Attaching CPU board and cables.

STEP 10. CONNECT REMAINING CABLES ON CPU AND KEYBOARD

- Connect the cables to the new CPU.
- Connect the grey cable on the new display cable to the right hand pin of connector J203 on the keyboard. (See fig. 11a for details abut cable placement).

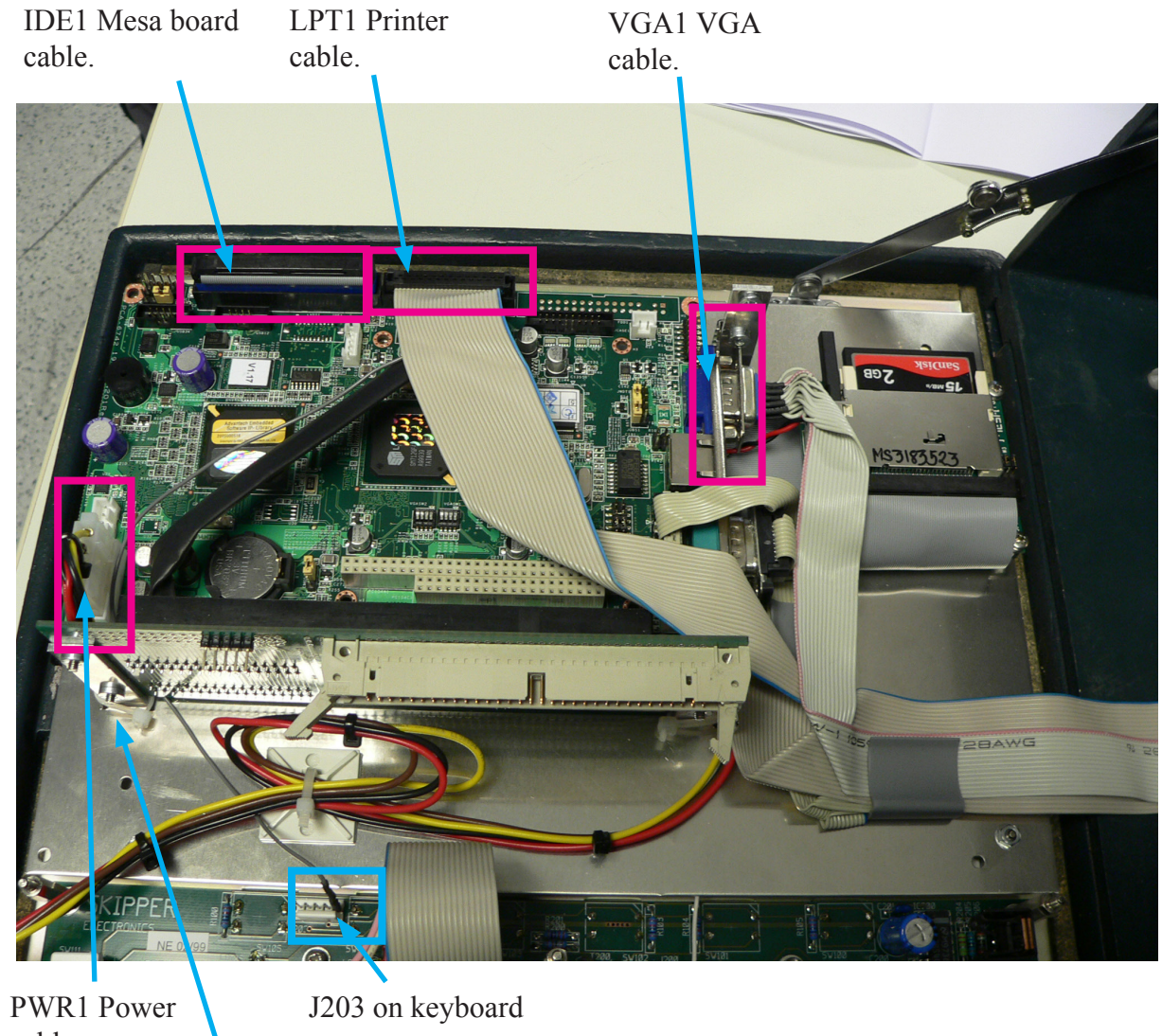


Fig. 11. Connecting remaining cables.

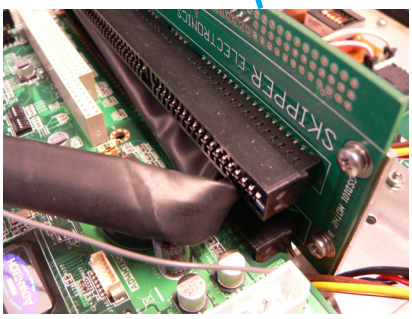
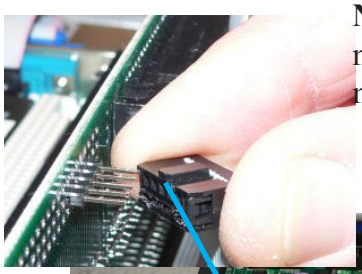


Fig. 11a. Cable placement details.

STEP 11. MOUNT NEW I/O BOARD

- Mount the new I/O board in the door with 5 nuts and connect the cables to it again. Take particular care with the flatcable connector which can be seated incorrectly. The upper row should be connected on the motherboard.

The unit may now be restarted. We recommend performing a master reset on startup. (Press the left and right soft button during the whole startup.)



Note: Take care when mounting the flatcable connector on the rear side of the motherboard. Connect **upper** row on the flat cable connector to the pins on the mother board.

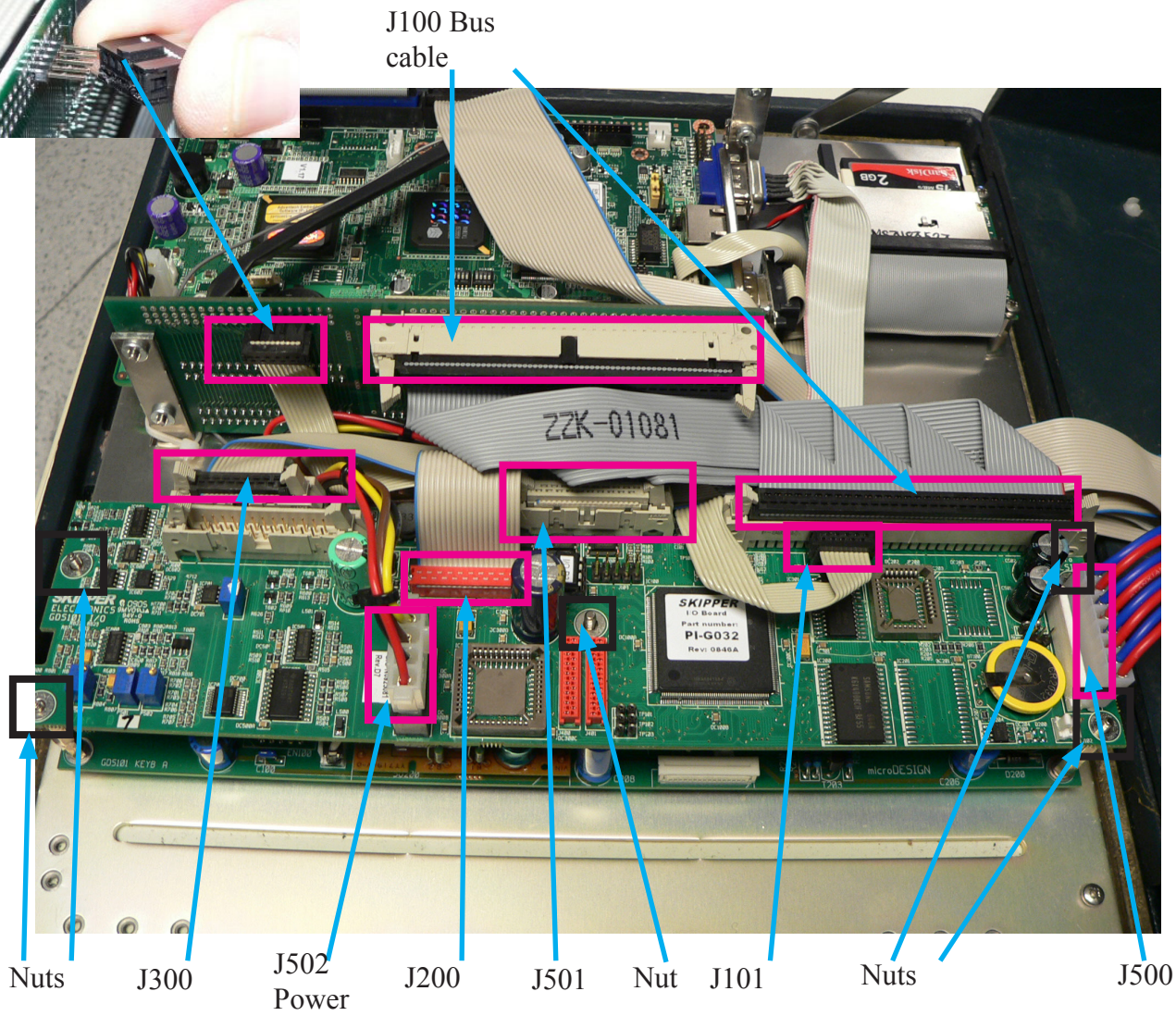
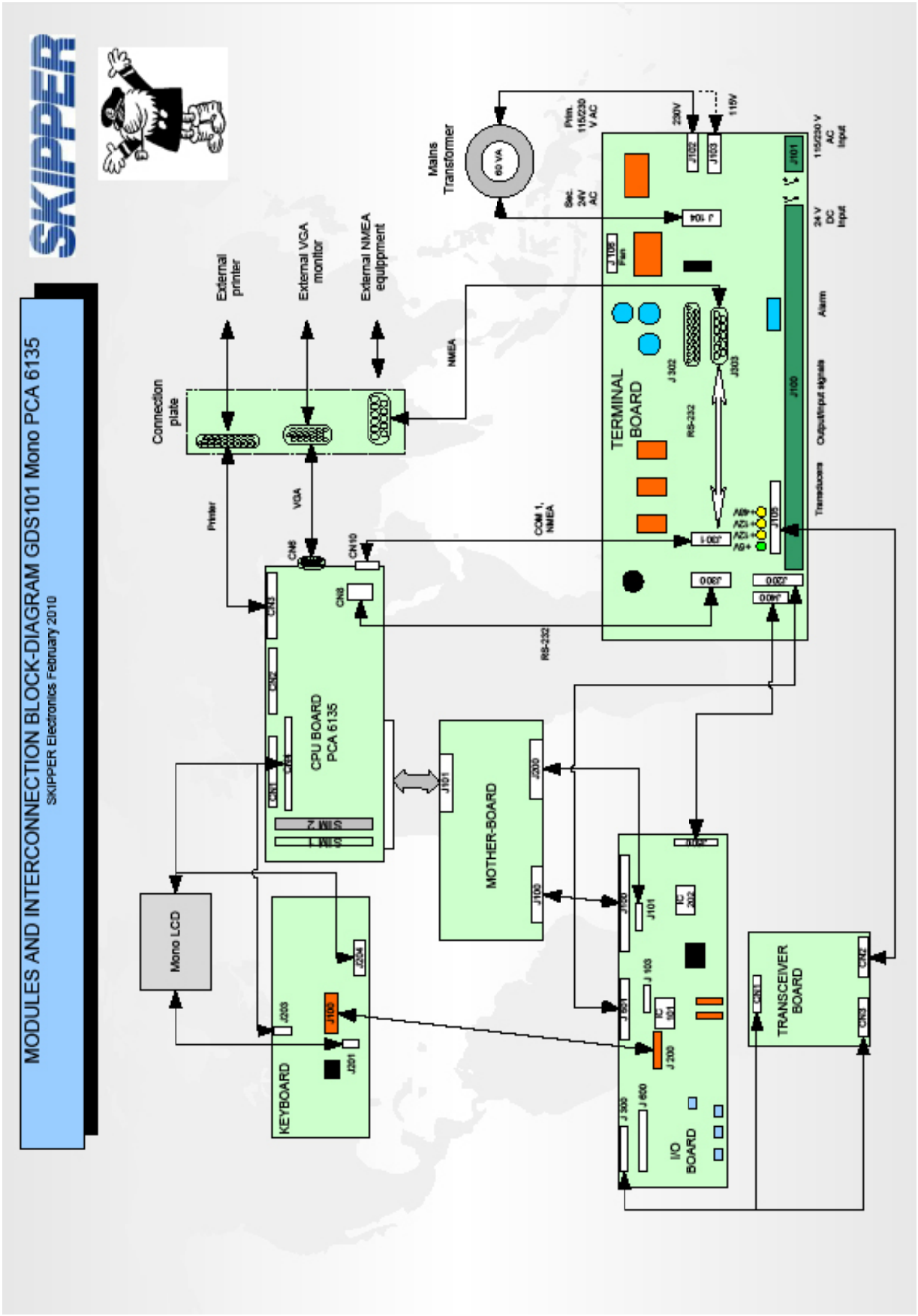


Fig. 12. Connecting cables to the new I/O board.

APPENDIX 1. GDS101 BEFORE UPGRADE



APPENDIX 2. GDS101 AFTER UPGRADE