

PRES

PO Box 319, Lightwater,
SURREY GU18 5PW

Advanced Plus 6 ROM Adaptor

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PRES's AP6 ROM ADAPTOR

FITTING INSTRUCTIONS FOR PRES's AP6 ROM ADAPTOR

If you are fitting your AP6 into either ACP's or PRES's PLUS 1 then read section 1 only. read section 2 and then section 1 if you have an ACORN PLUS 1.

First check everything is present :

- 1) AP6 circuit board. Check that none of the pins under the board are damaged.
- 2) Two I.C. sockets (14 and 16 pin). These are only needed if you have an ACORN PLUS 1.
- 3) A small polythene bag containing 2 10mm and 3 8mm spacers with five M3 screws.

SECTION 1 (For users with ACP's or PRES's PLUS 1)

- a) Ensure that power is off and all accessories are removed from your PLUS 1. Remove the PLUS 1 from your ELECTRON and PLUS 3 (if fitted). Place the PLUS 1 face down and remove the three screws that are visible underneath. Carefully turn over the PLUS 1 and remove the upper case half and the internal cartridge tray.
- b) Remove the six screws that hold in place the PLUS 1 circuit board. Lift out the circuit board and fit the two long (10mm) spacers, using two of the 6mm screws, to the positions marked on the accompanying diagram. These spacers are to stop the PLUS 1 board flexing when fitting ROMs into the AP6.
- c) Using a small flat bladed screwdriver, gently lever out the four I.C.s that are in sockets. 1) ADC0844, 2) ROM, 3) 74LS175, 4) 74LS30. These I.C.s are indicated on the diagram. The 74LS30 and 74LS175 are not required so place them in the AP6 foam tray for safe keeping.
- d) Replace the PLUS 1 circuit board and refit the fixing screws. Note the four longest screws fit into the cartridge sockets.
- e) Because the AP6 sits very near the components of the PLUS 1, we have to move a few of them slightly to avoid obstructing the AP6 when fitted.
 - 1) There are eight capacitors, marked C on the diagram, that need to leant over slightly. Do not over bend them as they could break.
 - 2) Next the transistor, marked Q1 on the diagram, needs to be bent over. Gently push the black plastic top until it is level with the board. The legs need not be bent. Take care to carry out this operation only once.
- f) Fit the three short (8mm) spacers to the positions, shown on the diagram, using the remaining M3 screws.

- g) Not fit the AP6 into the four I.C. sockets. NOTE. The pins that fit into the I.C. sockets are VERY delicate. **So take great care and do not rush!** Carefully align that pins on the AP6 with the I.C. sockets on the PLUS 1 circuit board. Once you are very sure that the pins are in the correct position, push the AP6 down into position. When the AP6 is seated correctly it should be parallel with the PLUS 1 board and the three short spacers should be sat on the PLUS 1 board.
- h) There are two of the four I.C.s that were removed in section 1c, to be refitted into the AP6. 1) ADC0844, 2) ROM. First ensure that the legs of these devices are straight, then take each one in turn and fit them into their sockets as indicated on the diagram. Make sure that the legs go into the socket and they are the correct way around. See the diagram about 24 and 28 pin ROMs.
- i) It is now time to test the AP6. Remove the two large PLUS 1 fixing screws and the retaining washers. Keep them in a safe place. Plug the PLUS 1 into the back of the ELECTRON. Connect the power supply but, before switching on, make sure that the ELECTRON and PLUS 1 are mated correctly. Switch on. If the ELECTRON does not start up as usual proceed to the trouble-shooting section. If everything is ok then switch off again and fit a ROM into position 15 of AP6. Switch on once more and carry out checks to see if the ROM is present. e.g. *HELP
- j) There is a jumper link on the AP6 which must now be set according to whether you have:
 - 1) ACP's AP4 or PRES's AP3. Fit link to +4 side.
 - 2) ACORN's PLUS 3. Fit link to +3 side.

If you have an ACORN PLUS 3, ROM socket number 4 cannot be used as this is already mapped into the PLUS 3. However, users of ACP's PRES's disc interface will be able to use this socket.

- k) At the point, fit any ROMs you have into the sockets of the AP6. The ELECTRON 'looks' at the sockets in a certain order - from 15 to 12 then from 7 to the last position 10/11 which contains BASIC. So if you have a language ROM that you wish to take priority, place it in ROM socket number 15. In cases of ROM conflict consult your ROM supplier.
- l) Assuming that everything is working, we can now refit the top cover on the PLUS 1. Firstly, refit the two large fixing screws and their retaining washers. Next fit the cartridge tray then the top half of the PLUS 1. Carefully turn the PLUS 1 over and secure using the three long self tapping screws that were removed in section 1a. Reconnect your system together and switch on.

SECTION 2 (For users of the ACORN PLUS 3)

We highly recommend that this procedure be carried out by qualified technicians or engineers. If you are in doubt, at any stage, contact the Service Department whose address is at the end of this leaflet.

PRES can not take any responsibility for damaged items if you proceed with this section.

If you choose, you can still have your AP6 fitted at our Service Department. Contact PRES for details.

The following description assumes a level of competence.

Remove the circuit board of the PLUS 1 and 'CUT OUT' the two I.C.s 1) 74LS175. 2) 74LS30. The position of these devices is indicated on the diagram. Support the circuit board and remove the legs of the I.C.s one by one. Clear the holes of solder being careful not to damage the fine tracks. Fit the two I.C. sockets, provided, into their respective places. Take care to have the sockets flush with the circuit board before soldering them into place.

Proceed to follow the instructions in section 1.

TROUBLE SHOOTING SECTION

Things that can go wrong:

- 1) The two I.C.s, ADC0844 and ROM not fitted correctly e.g. wrong way around, with legs bent or in the case of the ROM in the wrong position. Check very carefully and correct any mistakes found. Refer to the diagram.
- 2) Pins on the AP6 bent. This could be serious! Check by holding the PLUS 1 - AP6 combination at eye level and looking for any bent legs. If bent legs are seen proceed to the AP6 removal section, straighten all legs using extreme care, then refit and retry the AP6.
- 3) A user ROM fitted the wrong way around. This would not damage the AP6. However it is most certain to have destroyed the ROM. Remove any devices inserted correctly and consult your ROM supplier.

If problems still persist, contact the Service Department whose address can be found at the end of this document.

AP6 REMOVAL

- a) If the removal of AP6 is to be permanent then you will need two I.C.s : 1) 74LS175, 2) 74LS30. If you have an ACP or PRES PLUS 1 then these should have been saved at the beginning of the installation. If you have the ACORN PLUS 1 then you will need to purchase these devices. Contact PRES for details.
- b) Remove the upper half of the PLUS 1 case as instructed in section 1. Using a flat bladed screwdriver, gently prise the AP6 circuit board out of the four I.C. sockets. It is quite normal for the board to flex slightly during this procedure. Once the AP6 has been removed store it in the piece of foam that your unit arrived in. If your AP6 was fitted at our Service Department then find a flat piece of expanded polystyrene to protect the pins under the AP6.

- c) Refit the two I.C.s mentioned above in the correct positions
(See diagram) and then refit the PLUS 1 case half.

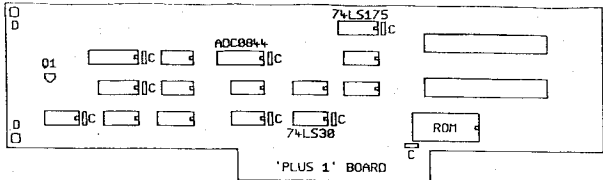
TECHNICAL SUPPORT

Technical or installation problems can be answered by contacting the Service Department on BRADFORD (0274) 580519 and weekday evening after 6pm or any weekend.

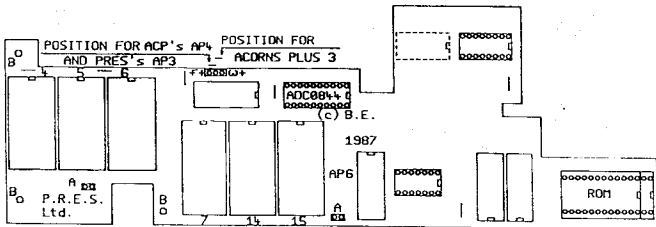
If you have a problem **do not return your AP6 until you have spoken to the Service Department.**



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HOLES MARKED 'D' ARE FOR THE TWO LARGE (10mm) SPACERS. THESE FIT UNDER THE BOARD



PINS MARKED 'A' ARE FOR FUTURE EXPANSION

POSITION FOR 24 PIN IC's

HOLES MARKED 'B' ARE FOR THE THREE SMALL (8mm) SPACERS

POSIT 1 FOR 28 PIN IC's