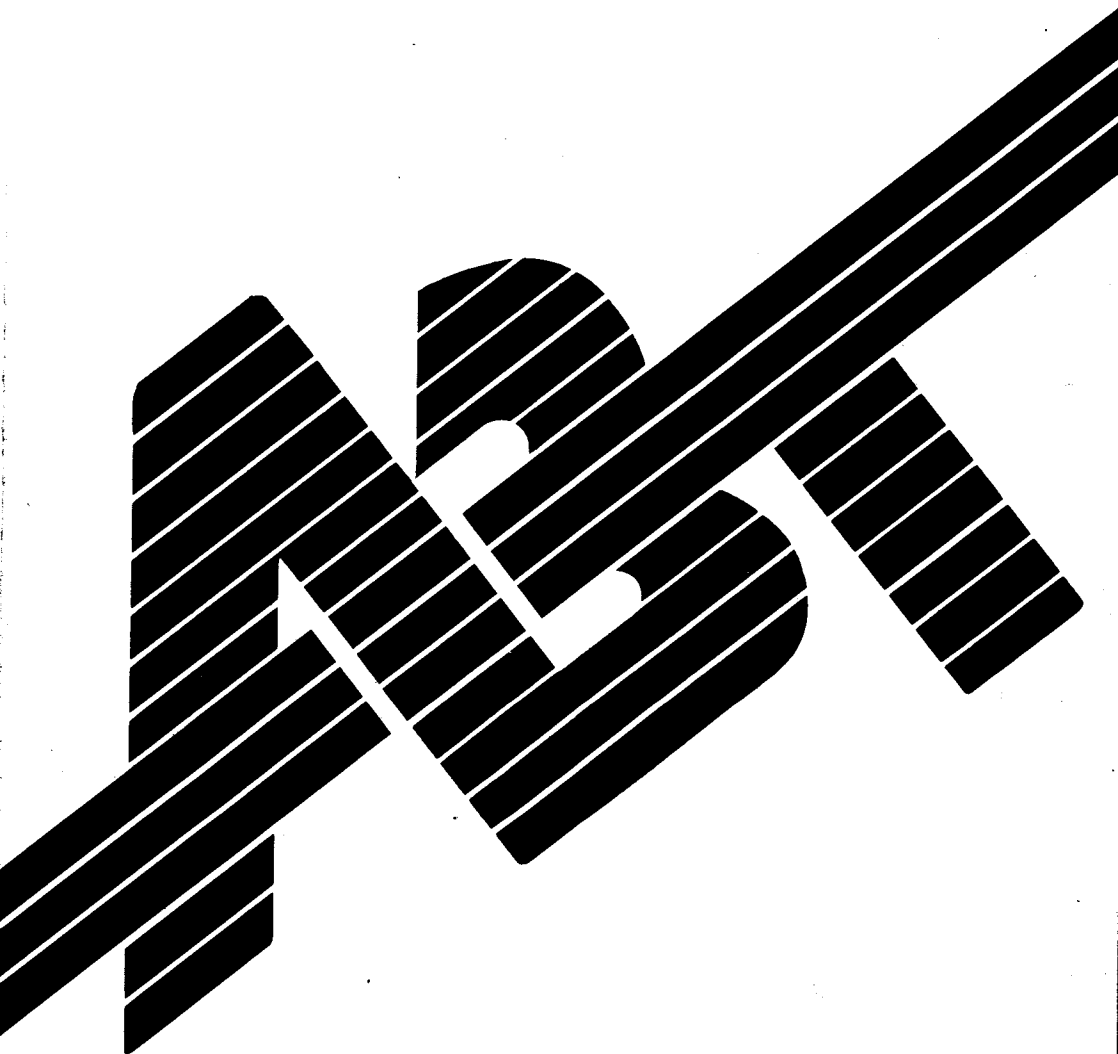

The KeyPad™
Model B
Installation & Warranty



The KeyPad^{T.M.}
Model B
Installation & Warranty



**ADVANCED BUSINESS
TECHNOLOGY, INC.**

12333 Saratoga Sunnyvale Road, Saratoga, California 95070 408/446-2013

WARNING!

Successful installation of the KeyPad requires care. Please read these instructions carefully and do not proceed until you are fully prepared to complete the installation.

Instructions

Parts required: 9 pin subminiature 'D' PC connector.
1 piece conductive urethane foam ¼" thick by 1¼" x 2½".

Tools required: Medium phillips screwdriver.
Soldering iron, 'pencil' type.

NOTE: Installation of the "Type B" KeyPad requires disassembly and soldering to your APPLE. This should be done by a competent technician to avoid possible loss of your Apple warranty.

- 1.** Remove power cord and all peripheral cards/cables from the Apple. Place Apple bottom up on protected surface such as carpet or soft rubber mat.
- 2.** Remove ten phillips-head screws holding bottom plate to case. (Three on each side and four across front.)
- 3.** With your left hand lift the Apple on its side and slowly part the base from the main case until ribbon cable connecting base to keyboard is visible. Reach through the top with right hand grasping the ribbon connector at the baseplate socket between thumb and forefinger and gently extract with rocking motion. (Connector must come straight out or bent pins will result.)
- 4.** Move base to one side and position Apple upside down with keyboard nearest you. The KeyPad connector must be installed on the 2" x 6½" sub-panel to the keyboard assembly. The bottom of the sub-panel is illustrated in Figure 1.

Instructions (Cont.)

5. Affix the conductive foam pad temporarily with sticky tape over the two rows of 20 solder points located left center on the sub-board. (See Figure 1.) This will protect the CMOS encoder chip from static damage during the installation. (PAD MUST BE REMOVED WHEN INSTALLATION COMPLETE.)

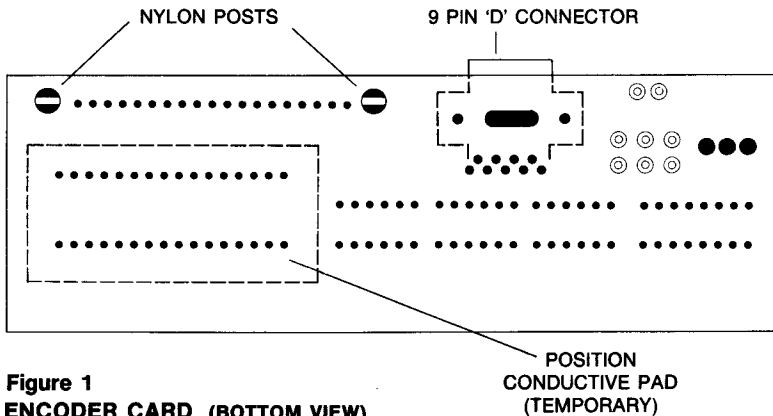


Figure 1
ENCODER CARD (BOTTOM VIEW)

6. Remove the sub-panel from the keyboard by carefully squeezing the spread top of each of two nylon attaching posts. (See Figure 1.) Once clear of the spread post tops the board may be easily pulled up and clear.
7. Turn the sub-board over. Seat the 9 pin connector in the outlined area marked "J2". The center tab on the connector base snaps over the edge of the sub-board mounting hole to secure the connector.

Instructions (Cont.)

- 8.** Flow solder onto each of the nine connector pins on the underside of the board to ensure perfect electrical connection. Inspect your work to be sure there are no cracks or unsoldered spaces between each pin and the surrounding solder pad.
- 9.** Re-attach the sub-board to the main keyboard assembly. Note that the twenty long wire pins (P1) must engage the twenty holes on the keyboard before the sub-board can be fully seated over the two nylon supporting/retaining posts.
- 10.** Remove the conductive urethane pad from the back of the encoder IC socket pins.
- 11.** Reassemble the keyboard/top to the baseplate. Be certain to reconnect the keyboard to the baseplate.
- 12.** Reinstall the ten screws holding the baseplate to the top.
- 13.** Reinstall peripherals, power cable, and video cable then the KeyPad cable to the newly installed connector.
- 14.** Check to see that you have not disturbed sub-panel switch S1 from its normal position outlined in white. (To the left end of the board.)

Possible Installation Problems

Difficulties with the installation such as unexpected or multiple character generation by the KeyPad or by the Keyboard with KeyPad installed can usually be traced to one or more of the following problems:

- A.** Temporary conductive urethane pad protecting the encoder during installation was not removed.
- B.** KeyPad connector not fully engaged in socket.
- C.** Sub-panel not properly re-installed to keyboard.

WARRANTY

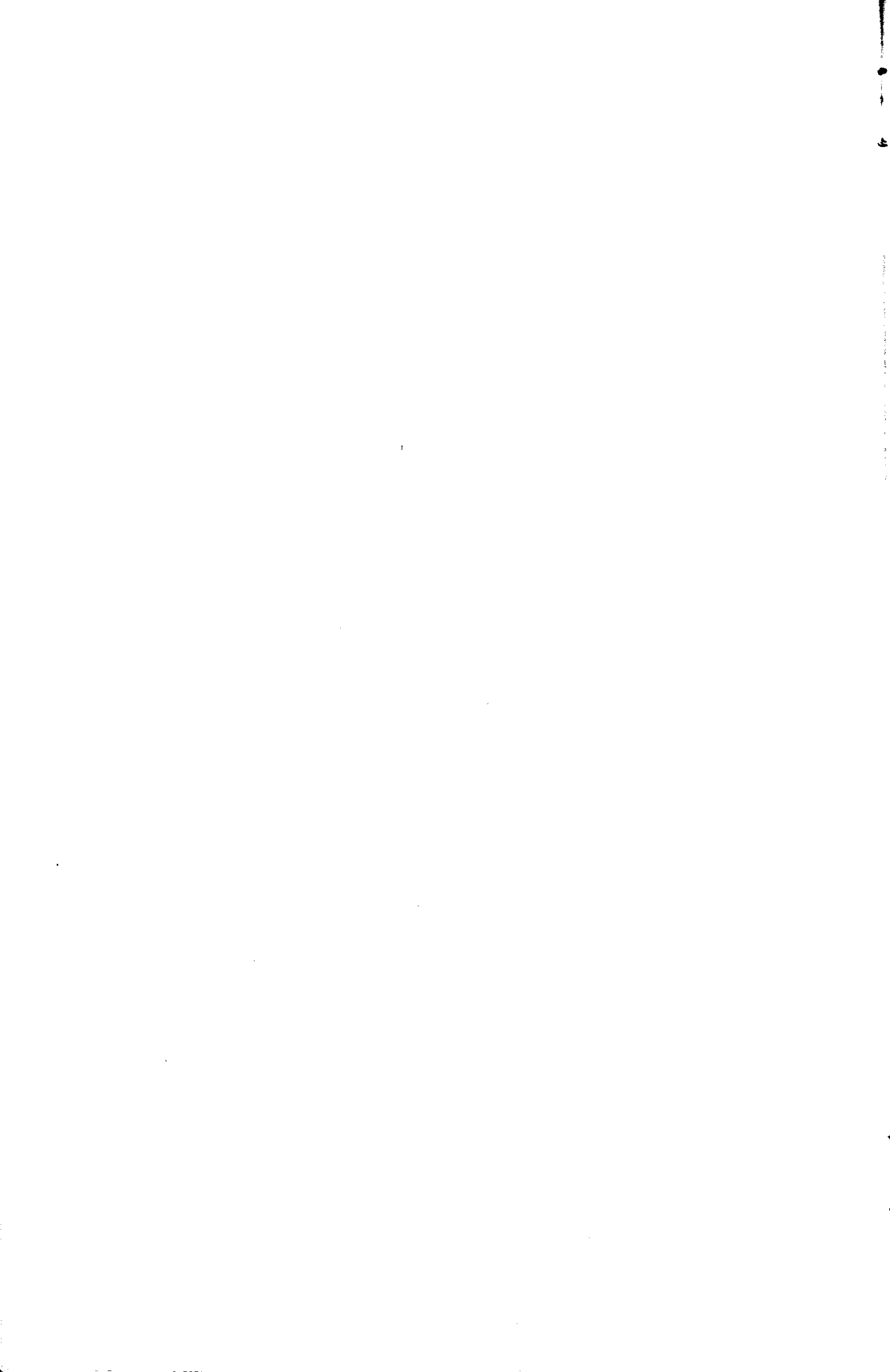
Advanced Business Technology, Inc. warrants your KeyPad to be free from defects in materials and workmanship for a period of one year from the date of original purchase.

Our obligation under this warranty is limited to repair or replacement of any defective part and provision of necessary labor for said repair or replacement. Transportation charges are excluded. This warranty does not apply to any KeyPad which has been subject to unusual abuse, misuse, has been altered, or damaged by attempted repair.

Also note that Advanced Business Technology, Inc. cannot be responsible or liable for damages to the Apple or it's component parts which may result from the KeyPad installation process.

To obtain repairs under the terms of this warranty pack the KeyPad carefully in it's original shipping carton together with a copy of your bill of sale and ship prepaid to:

*Advanced Business Technology, Inc.
12333 Saratoga-Sunnyvale Road
Saratoga, California 95070*





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