SCF-200

INSTALLATION GUIDE

for the

HEATH/ZENITH 88, 89 AND 90 DIGITAL COMPUTERS

KRES Engineering
P.O. Box 1268
LaCanada, CA 91011

LIMITED 90 DAY WARRANTY

KRES Engineering warrants this product to be free from defects in materials and/or workmanship for a period of 90 days.

In the event of a malfunction or other indication of failure attributable directly to faulty workmanship and/or material, KRES will, at its option, repair or replace the defective part or parts to restore this product to proper operating condition. Return of this product is subject to the issuance of a RETURN MERCHANDISE AUTHORIZATION NUMBER by KRES Engineering. This RMA number must be clearly marked on the ouside of the package. Return the product postage paid to KRES Engineering at P.O. Box 17328, Irvine, California 92713 "Attention Warranty Claims Department". All repairs and/or replacements shall be rendered by KRES without charge for parts or labor when the product is returned within the specified period of the date of purchase. This warranty applies only to the original purchaser.

This warranty will not cover the failure of KRES products which at the discretion of KRES, shall have resulted from accident, abuse, negligence, alteration, or misapplication of the product. While every effort has been made to provide clear and accurate technical information on the application of KRES products, KRES assumes no liability in any events which may arise from the use of said technical information.

Our warranty does not cover and we are not reponsible for damage caused by misuse or fire or unauthorized modifications to or uses of our products for purposes other than advertised. Our warranty does not include reimbursement for customer assembly, disassembly, set-up time, or unauthorized repairs.

This warranty is in lieu of all other warranties, expressed or implied, including warranties of mercantability and fitness for use. It is not extended to allied equipment or components used in conjunction with these products. IN NO EVENT WILL KRES ENGINEERING BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM OR IN ANY WAY CONNECTED WITH THE USE OF ITS PRODUCTS. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

IMPORTANT: Proof of purchase necessary for products returned for repair under warranty. Before returning any product please call our customer service department for a return authorization number.

INTRODUCTION

The SCF-200 supplemental cooling fan is designed to install onto the CPU card in the H89/90 between the left and right hand card cages, above the neck of the CRT. It is secured by the one screw on each of the two card cages most towards the center of the machine. The position of the card cage is unchanged. The fan does NOT replace your existing fan, it is used WITH the fan to help optimize cooling of the computer. The main portion of your computer, with CPU card and CRT get little benefit from the existing fan. With the SCF-200 in place, air is drawn up from the bottom of the machine, across the electronics and out through the vents in the top of the computer.

SCF-200 INSTALLATION INSTRUCTIONS

BEFORE PROCEEDING MAKE SURE THAT YOU HAVE REMOVED THE LINE CORD FROM THE AC OUTLET TO PREVENT HAZARD OF ELECTRICAL SHOCK

CABINET REMOVAL

( ) **Disconnect the computer line cord from the AC outlet.**

Refer to Pictorial 1 and 1A to remove the cabinet shell from the rest of the computer.

( ) Insert the blade of a small screwdriver in the latch plate, and slide as shown in the inset drawing.

( ) Repeat this for the latch plate on the other side.

( ) Carefully tilt the cabinet back.

( ) Unplug the fan. Your new fan will plug into this cable later.

( ) Remove the lid.

( ) Set the cabinet shell aside.

Refer to Pictorial 2 to install the fan.

( ) Loosen one screw on each of the card cage brackets as shown in pictorial 2.

( ) Hold the fan and bracket so the twisted wires are pointed away from you, and the screws holding the fan to the bracket are down.

( ) Slide the right most slot in the fan bracket under the screw you loosened in the right hand card cage, then drop the left most slot in the fan bracket under the screw you loosened in the left hand card cage. Tighten both screws.

WHEN PERFORMING THE NEXT STEP, REMEMBER THAT THIS CABLE CARRIES 117 VOLTS AC WHEN THE MACHINE IS RUNNING, AND ROUTE THE CABLE ACCORDINGLY. YOUR H89 MUST STILL BE UNPLUGGED FROM THE WALL.

( ) Route the cable from the new fan back to the cabling for your existing fan in the H89, keeping in mind there is 117 Volts AC on this cable when the machine is on. Do not route the cable where the insulation may become pinched or cut on sharp metal. Similarly, do not route the cable near anything that could run extremely hot and may soften the insulation, such as the power suppy regulators.

( ) Locate the fan cable coming from the H89 that the old fan was plugged into. Plug the new fan connector into this cable.

( ) Before proceeding to the final step, verify that all you have not accidentally knocked loose any connectors or jumpers during the installation of the fan.

( ) Refer to Pictorials (1,1A) and reverse the procedure to reinstall the cabinet shell. Reconnect the old fan cable into the remaining connector on the new fan cable assembly.

Your SCF-200 cooling fan is now installed in your computer and you are now ready to do a final check out and test.

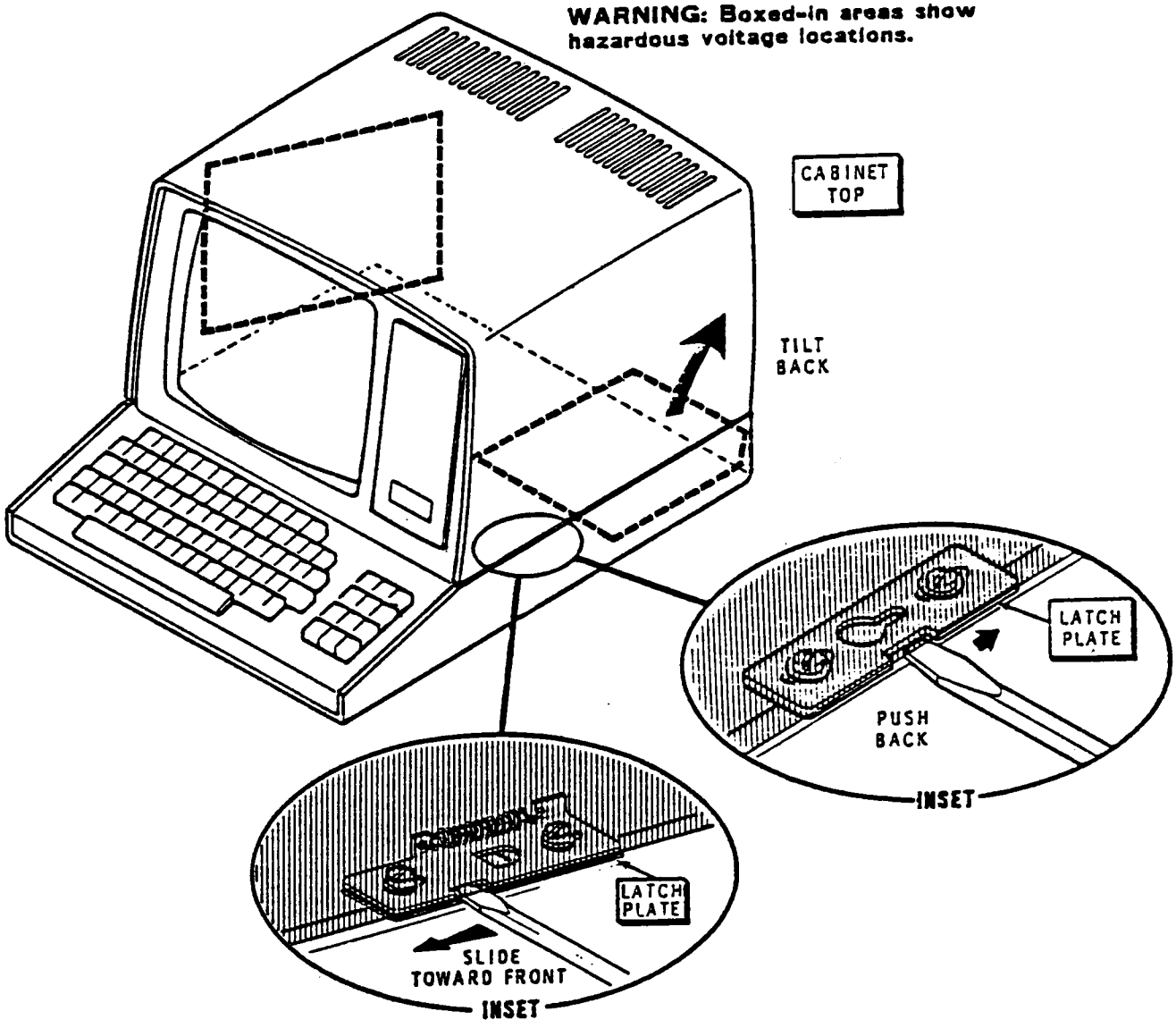
FINAL CHECK OUT AND TESTING

IF YOU NEED TO LIFT THE COVER IN THE NEXT STEPS YOU WILL BE OPERATING YOUR H89 WITH THE POWER ON AND THE COVER OFF; DANGEROUS VOLTAGES WILL BE EXPOSED. DO NOT TOUCH ANYTHING INSIDE YOUR MACHINE. YOU ARE TO OBSERVE AIR FLOW FROM THE NEW FAN ONLY.

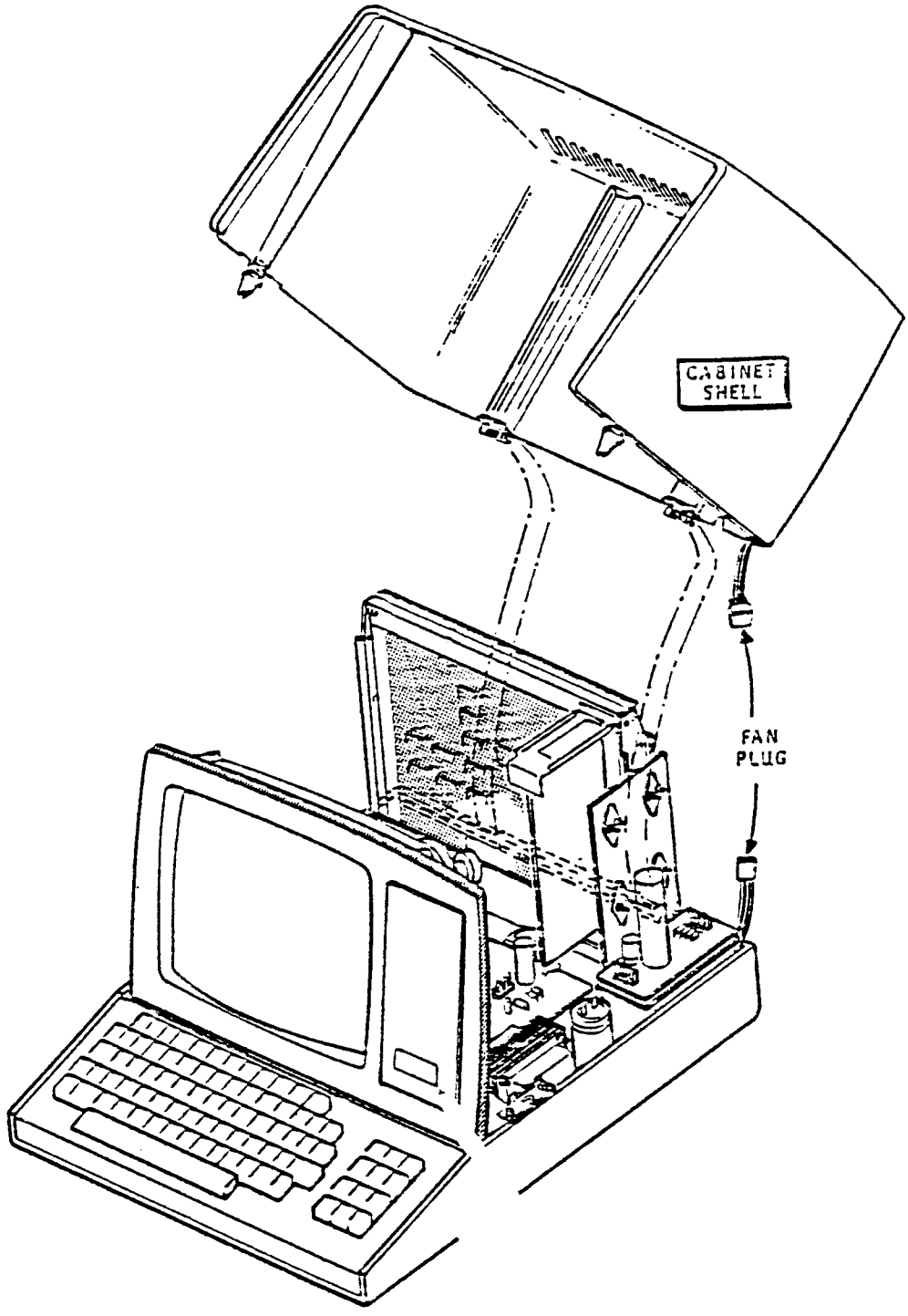
( ) Connect your computer to an AC outlet and turn the power on. It should beep just as before (most units beep twice) followed by any sign-on and the prompt. If not, go back and recheck your installation to be certain no cabling has been knocked loose.

( ) Both the old fan and the new fan should both be on, and the air flow from the new fan should be up and out of the machine. You will not feel as much air from the new fan as from your existing fan, the air flow is sufficient to help cool the main cavity of your computer without adding much noise.

This completes the installation and check out of your supplemental cooling fan.

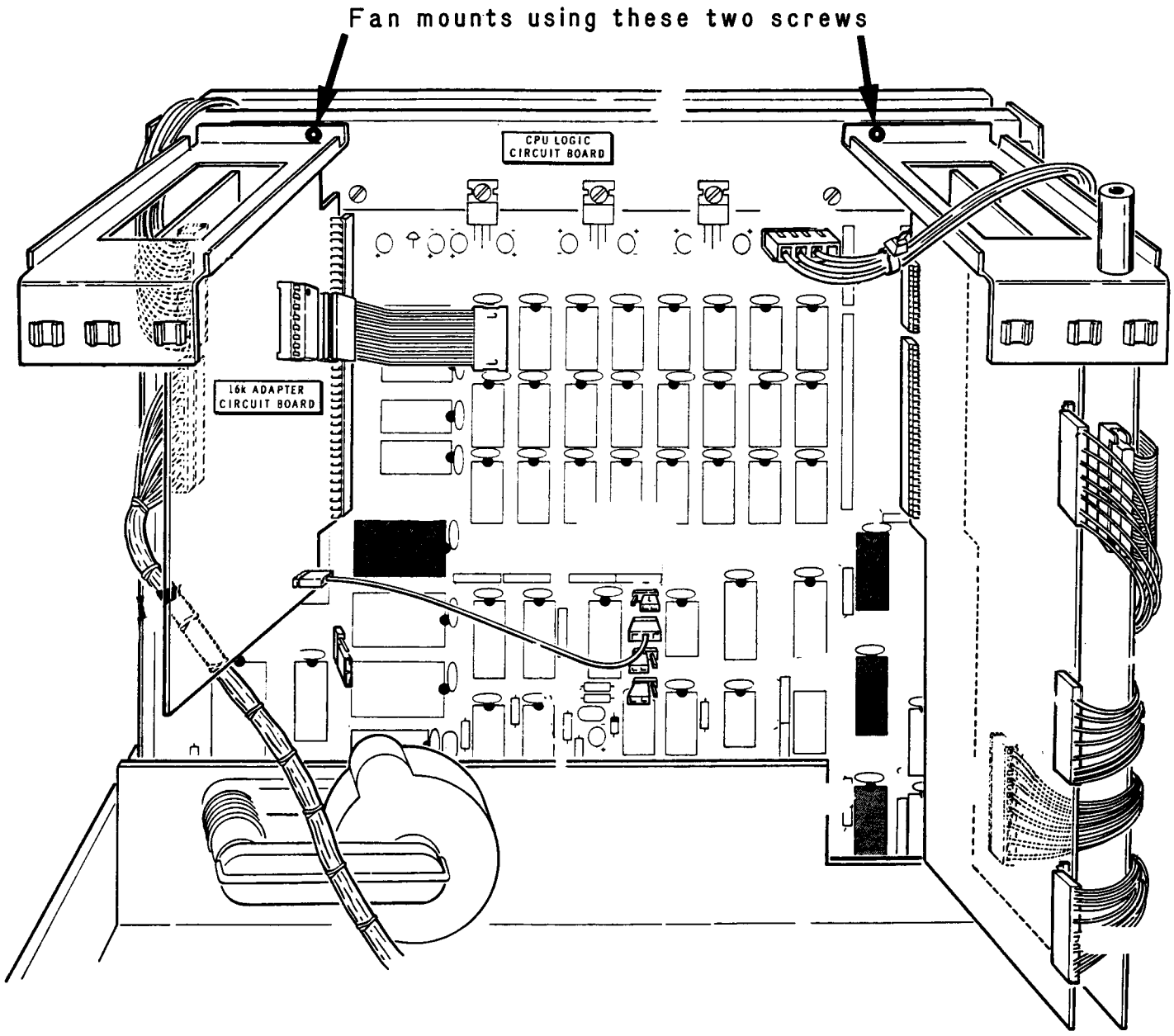

WARNING: Boxed-in areas show hazardous voltage locations.
CABINET TOP
TILT BACK
LATCH PLATE
PUSH BACK
INSET
LATCH PLATE
SLIDE TOWARD FRONT
INSET

PICTORIAL 1



PICTORIAL 1A

SCF-200 FAN MOUNTING



PICTORIAL 2