### MEMORY EXPANSION KIT EXP-878 ASSEMBLY INSTRUCTIONS

This kit adds 256K of memory to a 256k Prophet to bring the total memory capacity to 512K

### PARTS LIST:

- 1) one PC-877 board containing the following components:
  - a) J-080 34-pin connector, 1 pc.
  - b) C-023 Capacitor, 1 pc.
  - c) R-308 Resistor Network, 2 pcs.
  - d) C-045 Capacitors, 2 pcs.
- #2 & #3 NOT INCLUDED in parts kit.
  2) I-076 RAM IC, 12 pcs.
- 3) J-007 16-pin DIP socket, 12 pcs. #4 & #5 NOT INCLUDED in parts kit.
  4) I-257 Buffer, 2 pcs.
- 5) 20-pin DIP socket for I-257, 2 pcs.
- 6) C-121 capacitor, 12 pcs.
- 7) 6-32 x 3/8 screws, 4 pcs.

### Warning:

The assembly procedure for the EXP-878 kit requires some degree of technical knowledge and skill to successfully build the memory expansion kit. This kit involves installing & soldering electronic components to the PC board. It is not recommended that persons without prior experience in soldering attempt to assemble this kit! This assembly procedure must only be attempted by an experienced pc assembler or technician. Permanent damage to the memory expansion can occur as a result of careless or negligent installation procedures. Wine Country Productions, Inc. is not responsible for damage to the memory expansion kit due to improper assembly. There are no returns!

**Assembly & Soldering Hints** When installing the DIP sockets, be very carefull that all of the pins are in all of the holes. Do not begin soldering until you have confirmed that all pins are in their associated holes. Sometimes the pins tend to bend & miss the hole. It is very difficult to remove a DIP socket once it is soldered to the board, so be very careful and take your time. A mistake here will cost you time & money!

**Soldering Recommendations:** Use a low wattage pencil point soldering iron for assembly. Radio Shack carries an inexpensive soldering iron that is suitable. A sample of solder is also included with this kit for reference. The recommended solder for this PC assembly is "60/40" Light Duty Rosin Core Solder, with .032 diameter". Radio Shack carries the ARCHER Brand, with a catalog #64-005. The small diameter solder gives you more control over the amount of solder you apply to a component. Use solder sparingly; too much solder will bridge PC traces & can cause shorts, or flow into the socket & cause problems when the ICs are inserted. Use just enough solder to fill the hole sur-

## **Assembly Instructions:**

rounding the component's lead.

- 1) Familiarize yourself with the parts by checking them with the Parts List.
- 2) The printed circuit board already has some of the components attached to the board. You will need to complete the soldering of the R-308 resistor network and J-080 connector.

## IC sockets NOT INCLUDED in parts kit.

3) Install and solder the J-007 16-pin DIP sockets into the locations designated on the PC board as "J-007/J-076". There are 12 of these locations.

## IC sockets NOT INCLUDED in parts kit.

- 4) Install and solder the 20-pin DIP sockets into the locations designated on the PC board as "I-257". There are 2 of these locations.
- 5) Install and solder the C-121 capacitors into the locations designated on the PC board as "C-121". There are 12 of these locations.

# MEMORY EXPANSION KIT #EXP-878 FINAL ASSEMBLY AND TESTING INSTRUCTIONS

#### INSPECTION PROCEDURES

After all the connector, resistors, capacitors and sockets have been soldered to the PC board, inspect your work carefully. Inspect every solder joints. Solder joint should not exhibit holes, air bubbles, excessive solder, or "solder bridges". Special attention should be given to the 34-pin connector, as the task of soldering 34 pins spaced so closely together is difficult. There must be no solder "bridging" the pins on this connector. Double check all work.

#I-076 & #I-257 ICs NOT INCLUDED in parts kit. Installing the I-076 & I-257 ICs Carefully insert all ICs into their respective sockets. The twelve I-076 RAM ICs are installed into the 16-pin DIP sockets, and the two I-257 Buffers are installed into the 20-pin DIP sockets. Check the "polarity" of the ICs before insertion into the sockets. Note that each IC has a "notch", or mark on one end. Also note that on the PC board, in white ink outlining evry socket, is a "notch" that indicates the "polarity" of the socket. This is very important: Be sure that the polarity "notch" on the IC matches the polarity "notch" marking on the PC board's white ink outline. Notice that all ICs "align" in the same direction. When inserting the IC into the socket, be sure that all of the IC's leads go into the socket, and that none are bent underneath, or hanging outside the socket. When all ICs are inserted into the sockets, double check each IC for proper polarity and pin insertion. The board is now ready to be tested in your Prophet.

SEQUENTIAL Publication TN-878-2
Review the enclosed Sequential publication TN-878-2 for expansion board installation & testing procedures. Please note that your Prophet 2000 MUST HAVE A DOUBLE SIDED DISK DRIVE AND AT LEAST VERSION 3.0 OPERATING SOFTWARE IN ORDER FOR IT TO OPERATE WITH THIS EXPANSION BOARD KIT.

## FINAL INSTALLATION PROCEDURES The completely assembled memory expan-

sion board is now ready to be installed in the Prophet for testing. Open the housing and locate the memory expansion header. The header is located on PC-2000-3, and has 34-pins in 2 rows, with the word "expansion" written in white ink next to the row of pins. There are also 4 metal standoffs on the circuit board in the vicinity of the header. Carefully align the memory expansion board's 34-pin connector with the 34-male pins of the expansion header. Lineup the 4 mounting holes on the expansion board with the 4 standoffs. With a slight rocking motion, apply downward pressure on each end to "walk" the connector downward, seating the connector onto the header. CHECK TO SEE IF THE 4 HOLES LINE-UP WITH THE STANDOFFS. DO NOT INSTALL SCREWS UNTIL COMPLETION OF FINAL TESTING.

#### FINAL TEST

Close the housing, and power-up the Prophet. Delete all memory by going to DELETE, dialing in AL, & pressing EXECUTE.. Now go to SIZE, and turn the Parameter Knob completely clockwise. The display should go beyond 128, and read "+56". If it stops at 128, then there might be a problem. Power up the unit, delete memory, and check SIZE again. If 128 is as high as it goes, then there is a problem: the Prophet does not recognize the presence of the memory board. Follow appropriate trouble shooting procedures, and check your assembly work of the expansion board again. Perform FINAL TEST procedure KÜÖNVÜVAKONIK MYÖDINEK KOOUNUKEKS PRODUKTOONS, XINCX X RORXX X X DSTANKE.

## **EXP-880 MEMORY KIT FINAL ASSEMBLY & INSTALLATION**

Assemble & test each expansion board exactly as shown in the instructions for the EXP-878 memory expansion kit. When both boards PASS all tests for EXP-878, install jumpers on board labeled Z-416 and Z-417 by following these steps: Locate TB101. On Z-416, Jumper #1 to #2. On Z-417, jumper #1 to #3. Cut the circuit board trace located on the solder side behind #1 pin hole of TB101, as marked by "X" on the PCB.

Carefully follow Sequential instructions CM886 to complete the installation of the EXP-880 Memory Expansion. Please note that VERSION 4.0, 4.1, 4.2, OR 4.3B, IS THE OPERATING SYSTEM THAT IS REQUIRED IN ORDER FOR THIS KIT TO OPERATE WITH A PROPHET 2000/2.

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