

Z-H8

INSTALLATION GUIDE

This installation guide is intended to help the user install the Z-H8 into an H8 computer system. There are two major divisions within this document which cover the two basic Heath system configurations. If the system being upgraded to a Z-H8 has been modified to any other than the standard recommended Heath configuration, it may be necessary to restore it to what Heath recommends.

Part 1

This section includes instructions for users with Heath ORGØ (HA8-8) or Heath Z8Ø (HA8-6) already installed and running.

Part 2

This section includes instructions for users without Heath ORGØ (HA8-8) already installed and running.

Part 1

If the Heath ORGØ (HA8-8) or Z8Ø (HA8-6) is already installed in the H8 system, the changes required to install a Z-H8 are minimal.

1. Remove the H17 controller card from the H8 chassis.
2. Remove the integrated circuit (PROM) located at U14 on the H17 controller card.
3. Place this integrated circuit (PROM) in U23 on the Z-H8 CPU card. The Z-H8 is configured at the factory to accept the H17 PROM. If a Z-H8 kit has been assembled, Use the "Z-H8 Standard Jumper Selections" document to properly select the jumpers for the H17 PROM.
4. Install the H17 controller card back in its original slot.
5. Remove the ORGØ (HA8-8) card from the system. (Note: this card is not present in systems with Heath Z8Ø installed.) The ORGØ card is not required for operation with the Z-H8.
6. Remove the existing CPU card (P/N 85-1938-1 or 85-26Ø9-1) from the system. It is not required for operation with the Z-H8.
7. Plug the 5 position connector from the front panel onto the Z-H8 at connector CN3. Install the Z-H8 in place of the previous CPU card. (Note: The Z-H8 fits very snugly in the CPU slot. This is due to a conflict with the front panel cable bundle and integrated circuits installed on the lower right hand corner of the Z-H8. It may be necessary in some systems to redress the front panel cable bundle to install the Z-H8.)
8. Reassemble all support hardware required by the H8 computer.
9. The system is now ready for power.
- 1Ø. Refer to the Trionyx FWZ8Ø users guide at this point.

Part 2

If the Heath ORGØ (HA8-8) is NOT already installed in the H8 system, the following installation guide must be done.

1. H17 controller modification

- a. Remove the H17 controller from the H8 system.
- b. Check the H17 controller card to see if there is an integrated circuit, U28, in the upper left hand corner of the card. If there is NOT, then do the next 3 steps.
 1. Remove integrated circuit U22 from the board.
 2. Bend U22 pin 2 and pin 13 straight out from the body of the integrated circuit.
 3. Install U22 back into its socket making sure that pin 2 and pin 13 do not go into the socket.
- c. Remove capacitor C15 (47pf) from the H17 controller. This part will no longer be needed.
- d. Remove resistor R6 (68 ohm) from the H17 controller. This part will no longer be needed.
- e. Install a wire jumper in the eyelets for C15.
- f. The next 3 steps describe the disk drive side select modification.
 1. Skip the next 2 steps if you do not have side select disk drives. (choose either method 1 or 2)
 2. Method #1 (preferred)
On the solder side of the H17 controller add a wire from S1Ø3 pin 32 to Bus pin 18. (Note: S1Ø3 is the disk drive interface cable.)
 3. Method #2 (not preferred)
Use the 3 pin plug assembly received with the Z-H8. Take the wire on the center pin (side select signal) and solder it to S1Ø3 pin 32. Take the other wire (ground) and solder it to S1Ø3 pin 31.
- g. Remove the PROM at U14 on the H17 controller and install it on the Z-H8 at location U23. The Z-H8 is configured at the factory to accept the H17 PROM. (Note: If a kit has been assembled, use the "Z-H8 Standard Jumper Selections" document to properly select the jumpers for the H17 PROM.
- h. Install the H17 controller back into the system. If method #2 was chosen for side select, the 3 pin connector can be installed on the Z-H8 at CN4.

Part 2

Continued

2. Memory configuration

- a. Prior to configuring the system for ORGØ operation, memory should have started at 040,000 octal or 2000 hex.
 - b. Memory must now be enabled from 0 to 8K.
 - c. Follow the manufacturer's recommendations for enabling memory in the 0 to 8K range. The Trionyx Electronics M-H8 memory requires Modification No. 4 to be done for 0 to 8K enabling.
3. Remove the existing CPU card (P/N 85-1938-1 or 85-2609-1) from the system. It is not required for operation with the Z-H8.
 4. Plug the 5 position connector from the front panel onto the Z-H8 at connector CN3. Install the Z-H8 in place of the previous CPU card. (Note: The Z-H8 fits very snugly in the CPU slot. This is due to a conflict with the front panel cable bundle and integrated circuits installed on the lower right hand corner of the Z-H8. It may be necessary in some systems to redress the front panel cable bundle to install the Z-H8.)
 5. Reassemble all support hardware required by the H8 computer.
 6. The system is now ready for power.
 7. Refer to Trionyx FWZ80 users guide at this point.