



USER BULLETIN

ZETA THREE USER BULLETIN #22

Installation of Version 3.70/3E70 Software

Mar 5, 1992

CONTENTS OF KIT

Before proceeding with the installation, please verify that your Zeta-Three Version 3.70/3E70 Software Update Kit contains the following items:

<u>Qty.</u>	<u>Description</u>
3	ZETA-THREE EPROMs marked "A", "B" and "C"
	Documentation:
1	User Bulletin Index
3	User Bulletins (this bulletin, 21 and 23)
4	Manual Appendices E, G, I and J
1	Editor Configuration Sheet Index (version 3E70 only)
2	Editor Configuration Sheets (version 3E70 only)

Installation instructions for Version 3E70 start on page 5, instructions for version 3.70 are below.

INSTALLATION OF VERSION 3.70 SOFTWARE

NOTE: RAM REQUIREMENT OF SOFTWARE VERSION 3.70

Zeta-Three software version 3.70 requires that the non-volatile RAM at U74 be a Dallas DS1235Y. If the Zeta does not have a DS1235Y installed at U74, a non-volatile RAM expansion kit must be installed prior to installation of software version 3.70. Zetas shipped from the factory with software version 3.50 or higher are unlikely to need modification.

1. Turn off the power and disconnect the power cord.

ADAMS•SMITH 34 TOWER STREET, HUDSON, MA 01749-1721 U.S.A.

Tel.: 508-562-3801 Fax: 508-568-0404

THE STYPHER CORPORATION

2. Remove the six screws attaching the top panel to the chassis and lift off the panel.

Alternatively, on older models, remove the two screws at the rear of the top panel, and remove the panel by sliding it backwards out of the chassis.

IDENTIFY AND REMOVE OLD EPROMS

3. The Zeta-Three's memory components are all located at the front right corner of the main circuit board, just behind the CAPTURE key, as shown in Figure 1.

You will find one or two EPROMs installed in sockets U75 and U84. These are 28 pin chips with paper labels identifying the software version which they contain.

To the left of the EPROMs are two locations for RAM chips, designated U74 and U83. There will be at least one non-volatile RAM (a "fat black box") installed in U74, and possibly another non-volatile RAM or volatile RAM (a thin 28 pin chip) installed in U83. The exact configuration of your Zeta depends upon when it was purchased or last updated.

4. Carefully remove all EPROM(s) from sockets U75 and U84, and possibly RAM from socket U83. The non-volatile RAM at U74 **must** be a Dallas DS1235Y. If the non-volatile RAM at U74 is not a DS1235Y, a non-volatile RAM expansion kit must be purchased and installed prior to installation of version 3.70 software..

Beware! Older units were shipped with a smaller capacity, look-alike part, called a DALLAS DS1225Y. Do not confuse the two devices.

(The letters at the end of the Dallas non-volatile RAM part numbers may vary. The only significant part of the number, for our purposes, is the "DS1235" or "DS1225" portion.)

Either remove the EPROM(s) and RAM with an Integrated Circuit Extractor Tool, or very carefully lever them out with a small screwdriver, working alternately at one end of the chip and then the other. Be careful not to bend the pins!

CHECK WIRE JUMPERS

5. Adjacent to the now empty EPROM sockets, at the edge of the printed circuit board, is a row of wire jumpers, all of which are critical to this operation. These jumpers are labelled JP5, JP6, JP7, JP8 and JP2.

Figure 1 shows all five of these jumpers configured as they must be for the ZETA-THREE to operate correctly (or at all). Carefully compare the diagram with the jumpers on your board.

If any jumpers are not exactly as shown, then they must be modified as outlined in step 6.

In all cases except JP8, the wire must connect the outer two (of the three) contacts. Zeta's shipped from the factory with software version 3.50 or higher are unlikely to need modification.

6. For each jumper that requires modification, follow the steps outlined in Figures 2A, 2B, 2C and 2D. Clip the wire as close to the circuit board as is practical, and solder it very carefully in the position shown.

NOTE:

Small wire cutters, needle nose pliers, and a fine-tipped soldering iron are absolutely essential to success here.

If you do not have this equipment, or lack any confidence in your soldering skills whatsoever, then we highly recommend that you have a professional repair person do the job.

The unit may also be returned to the factory for modification. This will probably take longer, and we cannot undertake to provide free shipping for this process, but it will be done correctly !

INSTALL NEW EPROMS

7. When installing integrated circuits, one must be careful to avoid the build up of static electricity. Should such a build up come into contact with the pins of the chip (for example, from your fingers), then the internal circuitry can be seriously damaged.

Therefore, before removing EPROMs from their conductive foam carrier, take hold of an unpainted section of the Zeta-Three chassis to ensure that you and the chassis are at approximately the same potential.

From now until the chips are installed, try not to shuffle your feet or do any of the things which can create static electricity.

Be particularly careful in cold climates, where the air tends to be very dry in heated buildings.

8. Install the supplied EPROM marked "A" in socket U75, located as shown in Figure 1.

THE NOTCH IN THE END OF THE EPROM BODY MUST FACE TOWARDS THE REAR OF THE ZETA.

Installing the EPROM around the wrong way (i.e. notch to the front) can result in the destruction of the EPROM!

Make sure that none of the pins have missed the socket or bent under the body of the EPROM. Careful alignment of the pins before applying any insertion force can help a lot. (You may have to use your fingers to do this. Just be careful, and try to keep yourself at the same potential as the Zeta chassis.)

9. Following the same precautions, install EPROM "B" in socket U84 (located front right, as in Figure 1).

ONCE AGAIN, THE NOTCH IN THE END OF THE EPROM BODY MUST FACE TOWARDS THE REAR OF THE ZETA.

10. Similarly install EPROM "C" in socket U83 (formerly a RAM socket), **NOTCH TOWARD THE REAR.**
11. Check again that the **notch** in the end of each EPROM points toward the rear of the Zeta.
Double check that the components are arranged as shown in Figure 1.
Installation is now complete.

PACK UP AND RESET

12. Replace the top cover and the screws that secure it.
13. Now perform a special **power up sequence** that will totally reset all Zeta-Three functions:

PERFORMANCE OF THIS SEQUENCE IS MANDATORY IMMEDIATELY AFTER INSTALLING NEW SOFTWARE.

Re-attach the power cord.

Simultaneously hold down the three keys SHIFT, CURSOR and CAPTURE on the right side of the Zeta front panel.

Keep them held down.

Turn on the Zeta power switch with the keys still held down.

The display "**** SYSTEM RESET ****" should be the first to appear.

Do not release the SHIFT, CURSOR, CAPTURE keys until the usual Generator display comes up.

If there is any problem here, then give it one more try. If the problem persists, then **contact your dealer (or the factory) immediately.**

NOTE:

The special power up sequence need only be done once. From now on, you may power up and down normally.

14. It will be necessary to re-select your Master and Slave Transport parameters, just as you had to do when your Zeta was new.

INSTALLATION OF VERSION 3E70 SOFTWARE

1. Turn off the power and disconnect the power cord.
2. Remove the six screws attaching the top panel to the chassis and lift off the panel.

Alternatively, on older models, remove the two screws at the rear of the top panel, and remove the panel by sliding it backwards out of the chassis.

IDENTIFY AND REMOVE OLD EPROMS

3. The ZETA-THREE^{em}'s memory components are all located at the front right corner of the main circuit board, just behind the CAPTURE key, as shown in Figure 1.

You will find three EPROMs installed in sockets U75, U83 and U84. These are 28 pin chips with paper labels identifying the software version which they contain.

4. Carefully remove the three EPROMs from sockets U75, U83 and U84.

Either remove the EPROMs with an Integrated Circuit Extractor Tool, or very carefully lever them out with a small screwdriver, working alternately at one end of the chip and then the other. Be careful not to bend the pins!

INSTALL NEW EPROMS

5. When installing integrated circuits, one must be careful to avoid the build up of static electricity. Should such a build up come into contact with the pins of the chip (for example, from your fingers), then the internal circuitry can be seriously damaged.

Therefore, before removing EPROMs from their conductive foam carrier, take hold of an unpainted section of the Zeta-Three chassis to ensure that you and the chassis are at approximately the same potential.

From now until the EPROMs are installed, try not to shuffle your feet or do any of the things which can create static electricity.

Be particularly careful in cold climates, where the air tends to be very dry in heated buildings.

6. Install the supplied EPROM marked "A" in socket U75, located as shown in Figure 1.

THE NOTCH IN THE END OF THE EPROM BODY MUST FACE TOWARDS THE REAR OF THE ZETA.

Installing the EPROM around the **wrong way** (i.e. notch to the front) can result in the **destruction** of the EPROM!

Make sure that none of the pins have missed the socket or bent under the body of the EPROM. Careful alignment of the pins before applying any insertion force can help a lot. (You may have to use your fingers to do this. Just be careful, and try to keep yourself at the same potential as the Zeta chassis.)

7. Following the same precautions, install EPROM "B" in socket U84 (located front right, as in Figure 1).

ONCE AGAIN, THE NOTCH IN THE END OF THE EPROM BODY MUST FACE TOWARDS THE REAR OF THE ZETA.

8. Similarly install EPROM "C" in socket U83, **NOTCH TOWARD THE REAR.**

9. Check again that **notch** in the end of each EPROM points toward the rear of the Zeta.

Double check that the components are arranged as shown in Figure 1.

PACK UP AND RESET

10. Replace the top cover and the screws that secure it.

11. Now perform a special **power up sequence** that will totally reset all Zeta-Three functions:

PERFORMANCE OF THIS SEQUENCE IS MANDATORY IMMEDIATELY AFTER INSTALLING NEW SOFTWARE.

Re-attach the power cord.

Simultaneously hold down the three keys SHIFT, CURSOR and CAPTURE on the right side of the Zeta front panel.

Keep them held down.

Turn on the Zeta power switch with the keys still held down.

The display "*** SYSTEM RESET ***" should be the first to appear.

Do not release the SHIFT, CURSOR, CAPTURE keys until the usual Generator display comes up.

If there is any problem here, then give it one more try. If the problem persists, then contact your dealer (or the factory) immediately.

NOTE:

The special power up sequence need only be done once. From now on, you may power up and down normally.

12. It will be necessary to re-select your Master and Slave Transport parameters, just as you had to do when your Zeta was new.

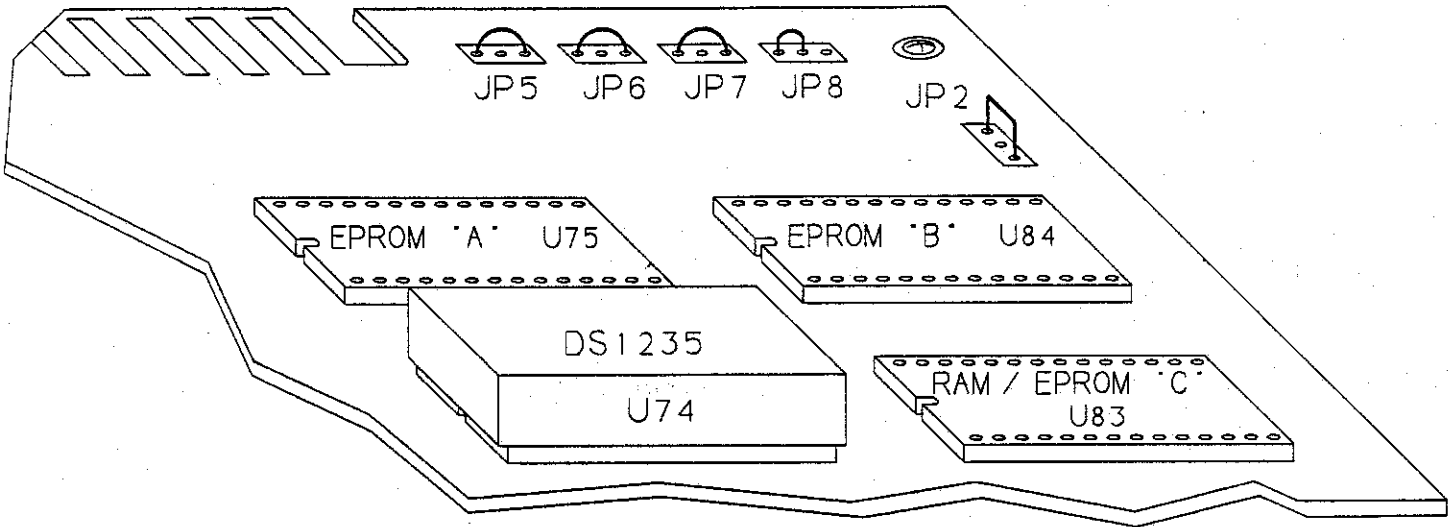


Figure 1. Location of EPROMs, RAMs and Jumpers

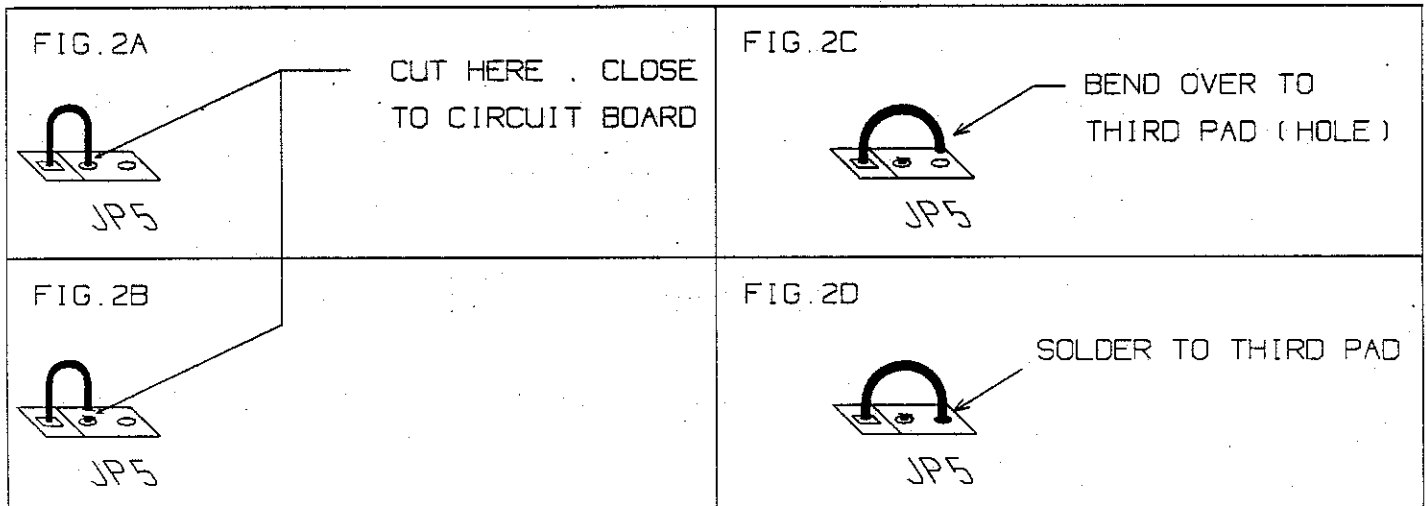


Figure 2. Modification of Wire Jumpers