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# **CHEF Mapper Year 2000 Compliance Upgrade Kit**

**Catalog Number  
170-3684**



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**The CHEF Mapper requires a ROM chip upgrade in order to work properly after December 31, 1999. This instruction sheet describes how to perform the Year 2000 upgrade.**

**This Kit Contains:**

800-2428 rev E U12 Chip      CHEF Mapper ROM V1.30

910-1667      Integrated Circuit Chip Puller

410-6145      Instruction Sheet

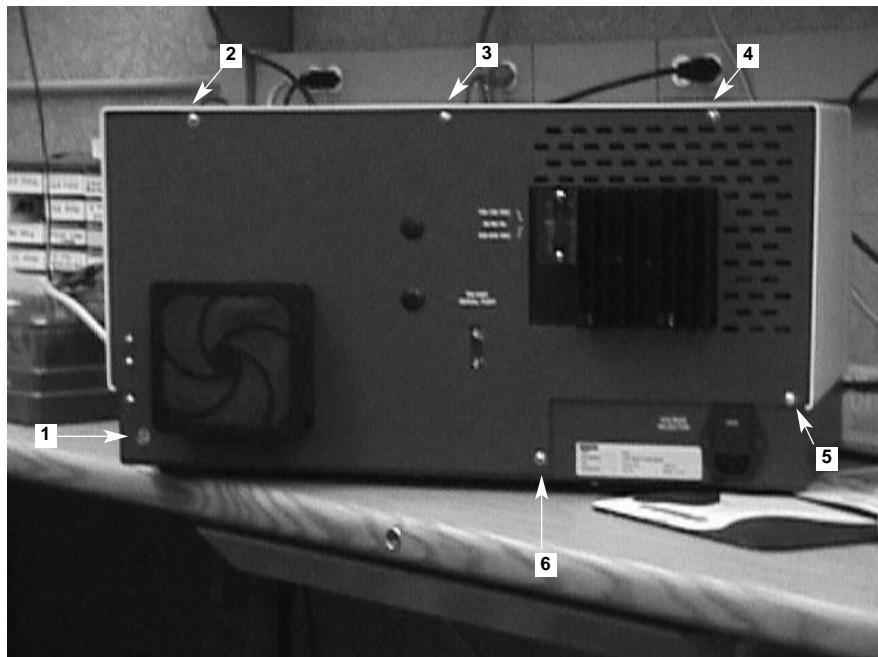
**Note:** This procedure requires removal of the ROM chip from the processor I/O board (input/output board). Be sure to follow procedures to ground yourself before touching any electronic components, to prevent static electricity damage to the board or chip. When handling the replacement integrated circuit (chip), first ground yourself by touching the metal chassis of the CHEF unit. It is important to do this to prevent damage to the electronic components on the circuit boards.

## **Section 1**

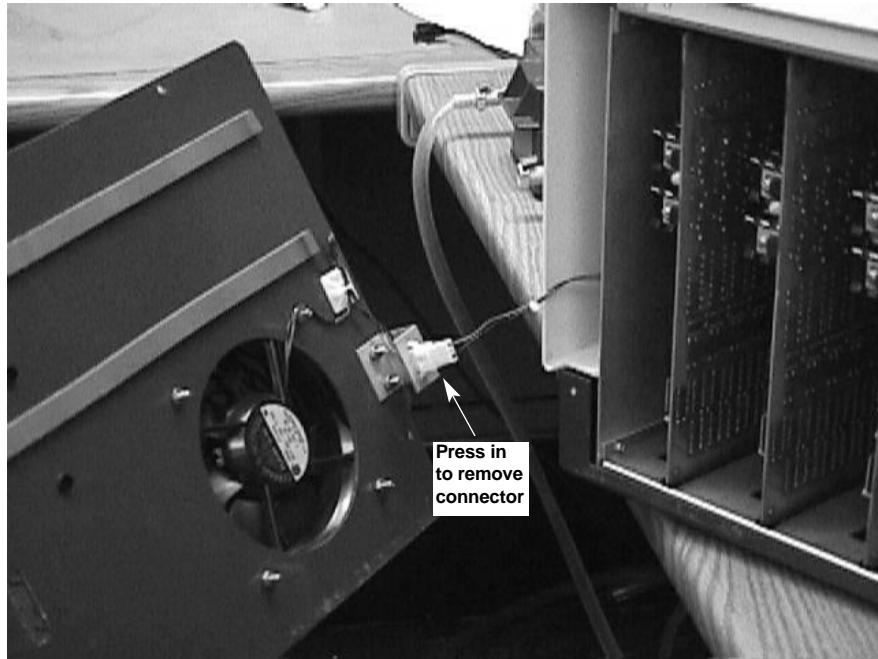
### **Replacement of the ROM Chip**

**Note:** You should exit any program that may have been running on the CHEF Mapper before beginning the procedure, so that the verification of the chip after its replacement will work properly.

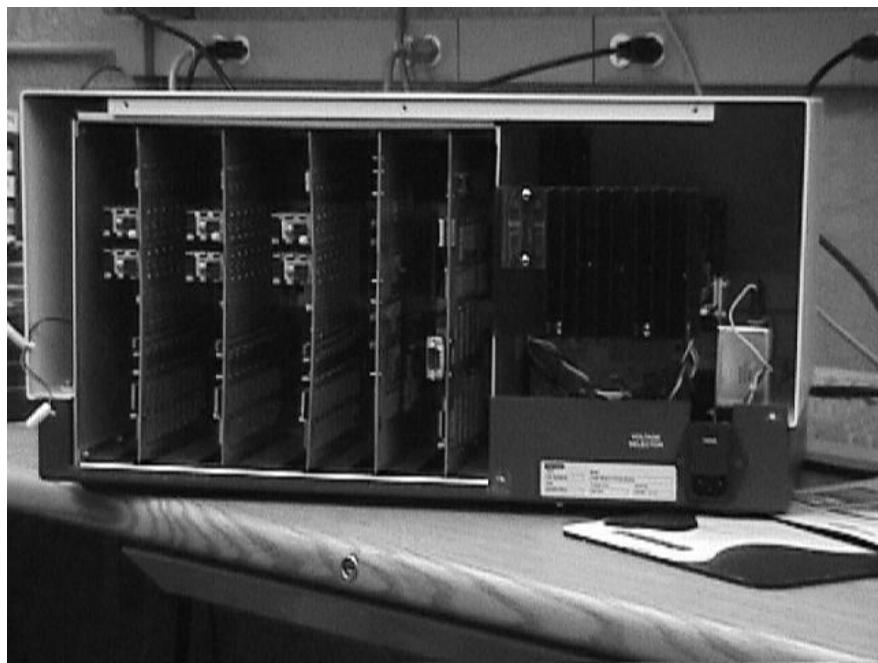
1. Unplug the CHEF Mapper power cord and, if the unit was previously powered within the last 5 minutes, wait 3 minutes to be certain that all high-voltage has disappeared from the system (all capacitors are discharged).
2. Remove the six screws identified below that hold the back panel to the CHEF Mapper.



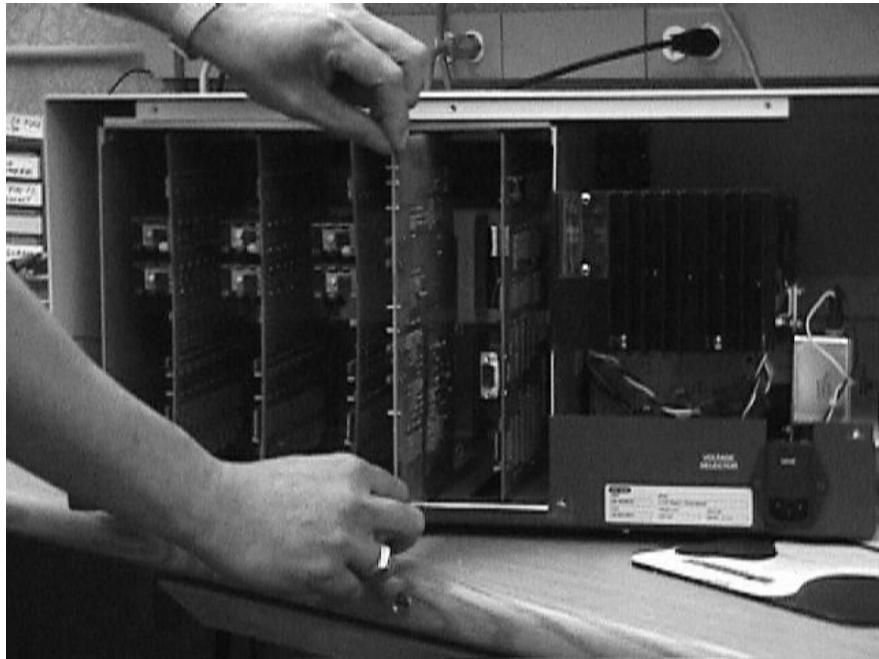
3. Lay down the back panel, and unplug the cable which connects the back panel to the CHEF Mapper. Set the back panel to the side.



4. Note the large card cage to your left, when observing the rear of the Mapper.

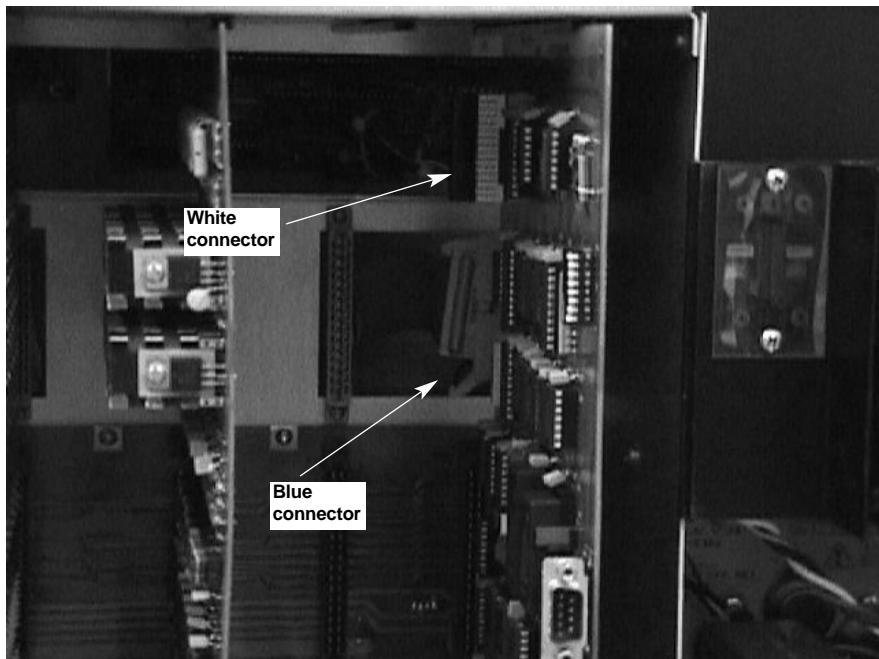


5. Grasp and pull the second board from the right (Analog Interface Board) straight out of the card cage.



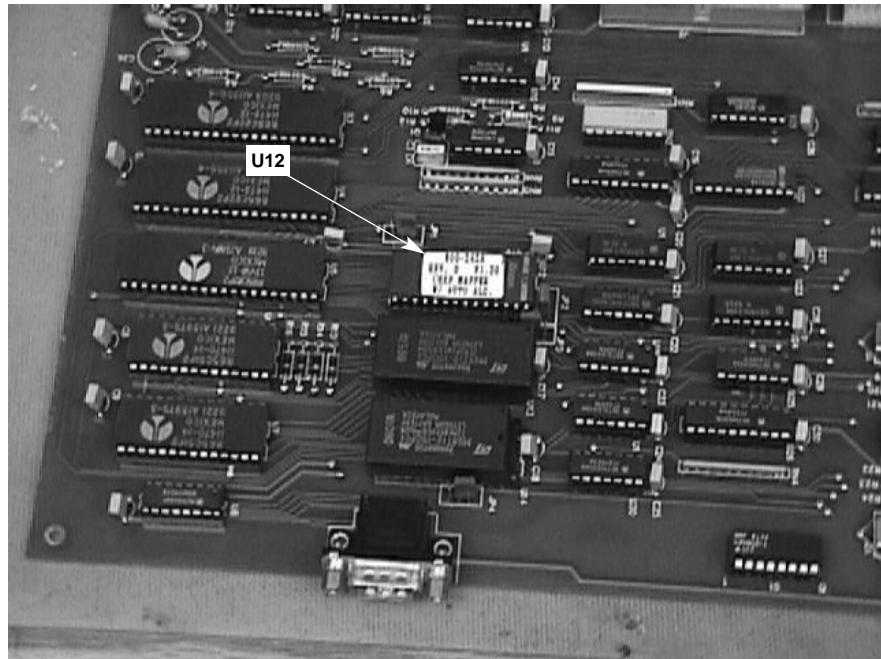
Lay the card (component side down) on a clean surface. Likewise, grasp and pull the third board from the right (Electrode Driver Board) straight out of the card cage, so you will be able to get your hands into the cage later. Lay this card (component side down) on a clean surface. Make note of which board was in the third and second positions so you can replace the boards in the correct locations.

6. Note the blue and white connectors at the back on the right-most board (Input/Output Board).



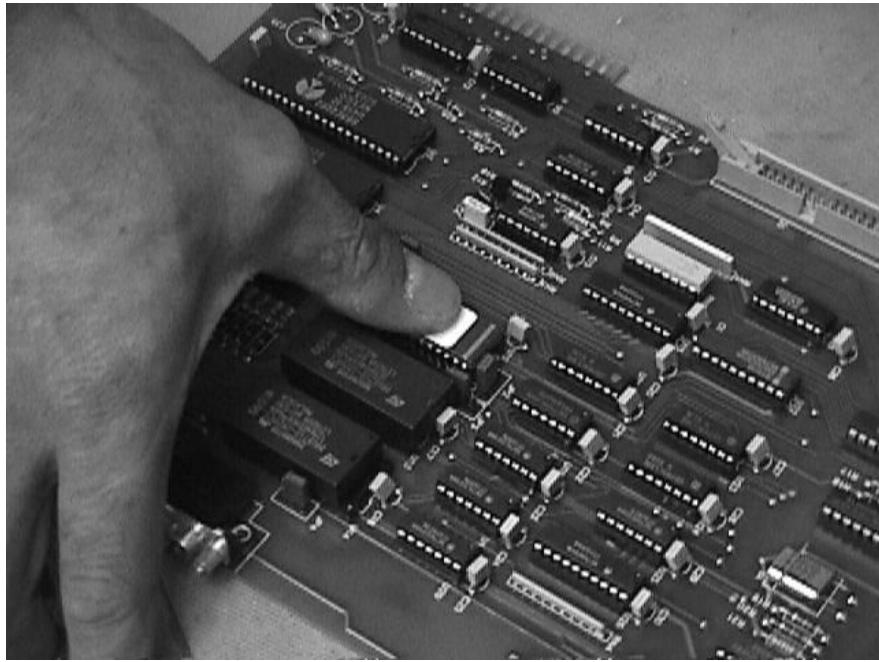
Unplug these two connectors from the board. The lower (blue) one has two clips on the top and the bottom. The picture above shows the clip on the bottom in the open position. Open the clip on the top as well, and unplug that plug. The plug on the top is unplugged by pulling it gently from the connector on the board.

7. Identify the ROM chip U12 behind the two tallest integrated circuits (U13,U14) at the bottom half of the Processor I/O Board (near the edge of the card, closest to the back of the Mapper).



**Caution:** Memory chips are easily damaged by static discharges. Observe procedures for handling static sensitive components to keep from damaging the memory chips. Be sure to ground yourself to metal before touching the components on the board.

8. Using the enclosed IC chip puller, grasp the edges of the chip, carefully removing U12 (label can be seen on the board). Alternatively, a small screwdriver can be used as a pry to lift the chip carefully out of the socket.
9. Carefully place the new U12 chip in the U12 socket. Make sure that the dot stripe or notch near the top of the chip matches with the notch on the board. Also, make sure that the pins of the chip are straight before insertion into the socket. Place the far row of pins into the socket first, and then the other pins. Then press down on the chip firmly to seat it into place as shown.



Now, replace this board in the Mapper, following the procedures outlined above in reverse order:

10. Re-seat the cables on the Processor I/O Board.
11. Slide the Processor I/O Board straight back into the card cage so that the fingers of the card plug evenly into the connectors at the back of the cage (front of the unit).
12. Re-install the second and third boards in the orientation (components to your left) and position as before. Make sure that the cards slide straight back and evenly into the card-cage connectors.
13. Plug in the back panel connector (fan) and re-install the back panel and screws.

## **Section 2**

### **Verification of ROM Chip Function**

Now test the Mapper to make sure it is still working properly.

1. Plug in the power cord, and turn on the power. The display should light up and briefly display the name of the unit with ROM version 2.1 in the upper right corner. This is not the ROM you have replaced. In a few seconds, the screen will display a second identification screen with ROM v. 1.3 on the lower left. This second ROM is the one that has been replaced.
2. To verify the date and time of the unit, which should have picked up the date and time information from another ROM in the unit, check the date and time. If it is incorrect, reset it.

3. To check the date and time, press CLOCK READ. The date and time are displayed for 5 seconds. The time is displayed as hours:minutes:seconds, and the date is displayed as month/day/year. The hours are in 24-hour time. For example, 3:00 pm is shown as 15:00:00. To set the clock or date, press CLOCK READ and DELAY START simultaneously. The display will be:

Current time: hh:mm:ss

Enter new hours [ ]

After you enter the hour, the cursor will move to minutes, then seconds. Pressing ENTER at any of these prompts without entering a new value retains the original value. Next, the cursor moves to month, day and year in the same manner.

The upgrade of the Mapper to be Year 2000 compliant is complete.



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