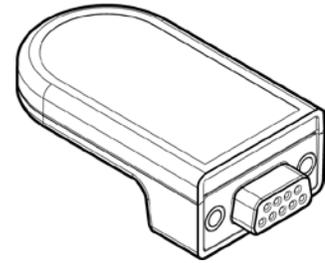


# APPLoader INSTRUCTIONS

## Purpose:

The purpose of these instructions is to define the process of installing Special Features EEPROM software applications, or 'Apps', using the Application Loader (Apploader) device (see Figure 1). The Apploader device connects to RS-232 serial port on the back of the 2008<sup>®</sup>T and 2008K@home<sup>™</sup> machines. An Apploader Kit (P/N 190894) is available by ordering through Fresenius Medical Care Customer Service Spare Parts.



**Figure 1**

Please observe the following precaution while conducting this procedure:



**Caution:** Use appropriate electrostatic discharge (ESD) protection when handling electronic components. EEPROM's can be affected by static electricity. Care must be taken when handling the EEPROM's to prevent damage by ESD.

## Software Prerequisite:

2008T Functional board software must be version 2.34 or greater to use the Apploader device.

2008K@home Functional board software must be version 4.34 or greater to use the Apploader device.

## Required Tools:

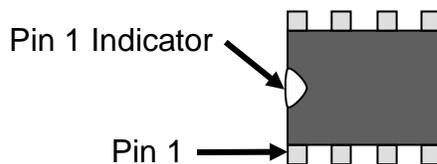
- IC Extractor
- Special Features EEPROM  
Contact Fresenius Medical Care Technical Support for a list of available apps at 800-227-2572

## PROCEDURE



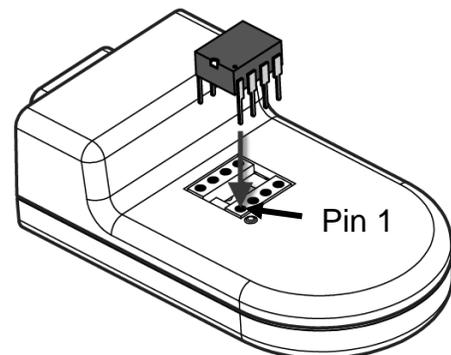
**Note:** The Special Features EEPROM is a one-time use component. Additional EEPROM's are required to install apps on multiple machines. The Apploader device may be reused.

1. Locate the Special Features EEPROM and note the position of the Pin 1 Indicator (see Figure 2). Make sure that none of the pins are bent or damaged.



**Figure 2**

2. Locate the empty EEPROM socket on the Apploader device (Figure 3 shows the socket location). Carefully insert the special features EEPROM into the empty socket, lining up Pin 1 of the EEPROM with Pin 1 of the Apploader device. Verify that all pins are inserted into the socket.



**Figure 3**

3. Power on the machine and enter Service Mode.

## APPLoader INSTRUCTIONS

4. Select the **Update Software** screen-button along the bottom of the screen then select the **Apploader** screen-button.
5. Connect the Apploader device to the RS-232 port on the back of the machine.
6. On the “Apploader” screen, select the **Start** button and press the **CONFIRM** key.
7. Before the update will begin, the machine displays a list of applications and shows which will be turned ON or OFF. The Status Box also displays the message, “Press CONFIRM to continue.” Verify the settings are correct and press **CONFIRM** to begin the Apploader program.



**Note:** If the message “APPLoader NOT FOUND” is displayed after pressing the **CONFIRM** key, check the Apploader connection on the back of the machine then press the **Start Update** button and the **CONFIRM** key again.

If the “APPLoader NOT FOUND” message is displayed again, open the card cage and verify that the RS-232 internal ribbon cable is correctly connected to P6 on the Functional Board.

**Note:** If the message “APPLoader DISABLED” is displayed after pressing the **CONFIRM** key, the Special Features EEPROM has already been used. Replace the used Special Features EEPROM with a new one before trying again.

8. After the machine displays the “APPS LOADED” message, turn the machine off and disconnect the Apploader device from the back of the machine.
9. Power on the machine to the “Select Program” screen. Verify that the intended applications are displayed at the bottom of the screen (see Figure 4 for an example).
10. Carefully remove the Special Features EEPROM from the Apploader device socket using an IC extractor and discard the used EEPROM. The Apploader device may be re-used to load another Special Features EEPROM.

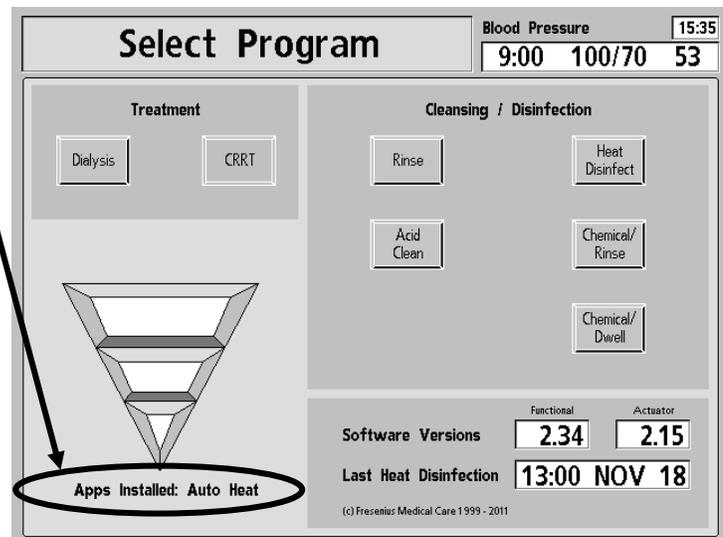


Figure 4



**Note:** The “Select Program” screen will display all installed applications at every power up unless a power-up related message is displayed (e.g. Short Power Down).

**Note:** If the Special Features Apps are not available, contact Fresenius Medical Care Technical Support at 800-227-2572