

USING THE SHARP FLASH ROM ADAPTER

The SHARP FLASH ROM ADAPTER (PART#ASDM72A) allows the Andromeda Research EPROM+ programming system to support the 72 pin DIMM modules with attached Sharp flash memory chips. The EPROM+ system supports the actual flash parts installed on the module as individual components thereby allowing each chip to be read, programmed or saved to a disk file. **WARNING: Do not use this adapter for any other 72 pin DIMM modules as the adapter or flash rom module may be damaged.**

INSTALLING THE ADAPTER INTO THE PROGRAMMING UNIT

To install the adapter, lift the handle on the programming unit socket to about 45 degrees. Insert the adapter pins into the corresponding positions on the socket. With the adapter in place, release the handle to secure the assembly.

INSTALLING THE FLASH ROM MODULE INTO THE ADAPTER

Orient the FLASH ROM MODULE such that the chips are facing the switch on the adapter (facing you) and press uniformly on both corners of the circuit board until the module snaps into place. Note that the ejector tab will rise when the module is fully inserted. To eject the module, press down on the ejector tab and the left corner of the module will release. Carefully remove the module from the socket.

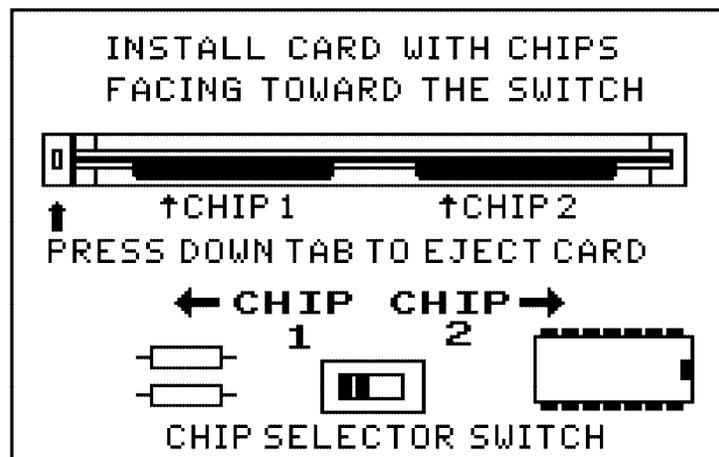
SELECTING THE PART NUMBER AND SETTING THE SWITCH

The modules use either one or two flash eproms which are soldered directly to the board. To determine the flash eprom part number, look at the actual chip(s) on the module. The chip will have one of three part numbers; LH28F800SU, LH28F016SU or LH28F032SU. These part numbers are located in the EPROM+ DEVICE SELECTION TABLE under FLASH EPROMS. Enter the part number from the chip which is located on the module.

Since a flash rom module may have one or two parts soldered to the board, the adapter has a slide switch which selects the chip with which you wish to work. Move the switch fully left to select CHIP 1. Move the switch fully right to select CHIP 2.

USING THE ADAPTER

With the adapter and flash rom module installed, the switch set and the part selected, you may proceed to use any EPROM+ function. You may copy, read, program or archive to disk just as you would with a standard part. Note that the parts used on the flash rom module must be erased before they can be programmed. This is accomplished with the "Z" (Device Options) command.



PROGRAMMING SHARP FILES

This page describes the procedure for programming the four file types provided by Sharp. These are the PCU, OPE, ICU and Print Controller. The PCU and OPE files may be programmed directly into the flash rom using the following procedure. Note that the flash rom must be erased using command Z before it can be programmed.

PCU and OPE files

STEP 1. Install the flash rom into the adapter. Be sure the switch is set to CHIP 1.

STEP 2. Locate the file which you wish to program. Use the "P"ath and "D"irectory commands to locate your file. Place the lite bar over the filename and press ALT-1. This will load the file in preparation for programing.

STEP 3. Press "P" to program the device. If the system indicates that two devices are required, set the adapter switch to CHIP 2 and program the second chip on the flash rom after chip 1 has been programmed. After the chips are programmed remove the flash rom from the adapter.

ICU files

The ICU files are different in their format than the PCU and OPE. The file data must be rearranged before it can be programmed into the flash rom. Note that ICU flash roms always have two chips.

STEP 1. Follow the steps as described above to install the flash rom and locate your file. Place the lite bar over the filename and press ALT-4. This will load the file into the systems buffer.

STEP 2. Select Command 5 (Buffer Editor). Press "G" (Arrange Buffer Data for 2 or 4 Devices). Press "5" (Odd/Even words with byte swap). The system will rearrange the data in the buffer to the proper format for the ICU flash rom. When the procedure is complete press "ESC" to return to the main menu.

STEP 3. Select Command 2 (Program device from buffer) and choose "O"ptions. Select Option 3 (Program a series of devices).

STEP 4. The system will prompt you to ENTER NUMBER OF DEVICES IN THE SERIES ->. Enter "2". This is the number of devices on the ICU flash rom.

STEP 5. The system will prompt you to program device 1. Be sure the adapter switch is set to CHIP 1 and press "P". Chip 1 will be programmed.

STEP 6. After chip 1 is programmed set the adapter switch to CHIP 2 and program chip 2.

STEP 7. After chip 2 is programmed set the adapter switch back to CHIP 1 and remove the ICU flash rom.

PRINT CONTROLLER files

Programming the print controller flash rom requires additional steps as the data which is to be placed into the dual chip part must be created from two files. The easiest way to accomplish this task is to have both files in the same directory or folder. At this time the two files which must be combined are called BOOT204.HEX and PB2A440.HEX. Sharp may change the names in the future to reflect updated drivers.

STEP 1. Select Command 4 - Option 3 (user defined base address). Enter a load base address of 8F000000. **Note:** This value will be reset to 00000000 by the system during the ICU procedure (Command 5 - G). The load base address must be 00000000 for all file types except the print controller.

STEP 2. Select Option 5 (set initial buffer value) and press "X" (no buffer initialization). The system is now set to process the required files to create the image for the flash rom.

STEP 3. Navigate to the directory or folder which contains the print controller files and display the files. Use the lite bar to select and press ALT-4 to load both files into the buffer. The load order does not matter but both files must be loaded.

STEP 4. You may now proceed to STEP 2 of the ICU file procedure to create the PRINT CONTROLLER flash rom.

NOTE 1: At the time this document was created the files which are to be programmed are supplied in the Motorola S-RECORD format. The file extension will be .MOT or .HEX. Motorola format files are the only files which need be programmed. Any other files, such as data files (.FD), which may be included from Sharp should be ignored. If there are any questions regarding a specific file or files to be programmed into a flash rom please contact your Sharp regional office.

NOTE 2: The EPROM+ system requires a minimum of 4 megabytes (0 - 3FFFFFF) of buffer space to support two 16 meg flash roms and 8 megabytes (0 - 7FFFFFF) to support the two 32meg flash roms on the print controller. The maximum buffer space is 16 megabytes (0 - FFFFFFF). The available buffer space may be determined by selecting Command 5 and viewing the BUFFER END value at the top of the screen. You may increase the buffer space by right-clicking the PEP.EXE filename, selecting PROPERTIES, then MEMORY. Set the Expanded Memory value to 8192 for 8 megs or 16384 for 16 megs. If there is insufficient buffer space the system will indicate ADDRESS ERROR following STEP 4 of the ICU procedure.