## **PROMs on the North Star Single Density Controller**

This folder contains the information required to recreate the 4-bit PROMs on the North Star single density floppy controller.

NSBOOTV1.ASM and NSBOOTV2.ASM are source files that reproduce the two versions of the boot PROMs typically found on the single density controller. The difference between the two versions is detailed in the source file headers.

The boot PROM actually consists of two 4-bit PROMs on the PCB. The files BOOTV2-LSN.BIN and BOOTV2-MSN.BIN contain the version 2 boot PROM split into low and high nibbles respectively. IC-3E is the LSN and IC-3F is the MSN (see **IMPORTANT** below).

A third 4-bit PROM on the board (IC-7G) is used as part of the address decode logic. All addresses contain 0Fh except for the four locations corresponding to the four page addresses the board should respond to. For example, for standard addressing in which the board responds from E800-EBFF, locations E8, E9, EA, and EB contain 07, 07, 09, 0A respectively. The file "E800 DECODE.BIN" contains the content of this PROM for standard addressing at E800-EBFF (see **IMPORTANT** below).

## **IMPORTANT**

On the North Star controller, the address lines to the three PROMs are inverted, so the content of these PROMs when read or programmed on a programmer appear in reverse address order. For this reason, an address-reversed version of each binary file is also provided.

PROM	Normal	Reversed
Boot Ver 2 MSN	BOOTV2-MSN.BIN	BOOTV2-MSN-R.BIN
Boot Ver 2 LSN	BOOTV2-MSN.BIN	BOOTV2-MSN-R.BIN
Decode PROM	E800 DECODE.BIN	E800 DECODE-R.BIN