Amiga 3000 QM8

These instructions are for those Pangolin users with the older QM8 board, used with the Commodore Amiga 3000 computer.

Description

The QM8 performs the same function as the Amiga custom chip called "Paula".

Disk operations and the standard left and right audio outputs function normally with a QM8 installed -- there is no difference over Paula operation.

The QM8 adds four RCA jacks which provide the four separate audio channels (before being mixed into two stereo channels). The signal at these jacks is bipolar DC, -5 to +5 volts. This is intended for use with laser scanner amplifiers, but can be used for other DC control voltage applications.

Installation

1. **Open the Amiga 3000.** Locate expansion slot #1, the bottommost slot on the four-slot vertical daughterboard. Locate the Paula 48-pin chip, in the middle of the left side, marked "8364" on the chip.

2. **Install the QM8 in expansion slot #1.** This slot is used so the cable does not have to snake around other boards. Note that the QM8 does not plug into the slot on the daughterboard, but instead mounts directly to the metal plate which covers the slot rear opening.

3. **Note index mark on short side of Paula chip**, closer to the rear of the A3000. The cable will match this orientation (pins 1 and 48 are at the end with the index mark).

4. **Carefully remove the Paula chip**, taking care not to bend pins or damage the board underneath the chip. Set Paula aside for use if the QM8 is later removed.

5. **Install the cable into the Paula socket** with the correct orientation.

6. **Locate R404 and R405 on the board**, in the group of seven resistors (see photo below, where the seven resistors are marked by seven blue lines). The resistors will probably be covering the R404 and R405 labels, so you should identify these resistors by location only. They will have a brown-black-black-gold color code.

7. **Attach the CAEC clip lead to the right side of R404**, the third resistor in the group (the first one being towards the rear).

8. **Attach the HIRAM clip lead to the right side of R405**, the fourth resistor in the group.

9. Check your work, then **close the Amiga.**

The RCA jacks on the QM8 are unlabelled. The outputs (X, Y, Z and color) come out of different jacks depending on your QM8 and the Pangolin program you are using. You should experiment to find the correct signals for your QM and particular program. If you use different programs, you may need to switch cables.

Location of CAEC, HIRAM and Paula