

INSTRUCTION FOR CONVERTING FROM TMS9118 TO TMS9128 VIDEO IC.

Scope:

All Galaxy (8000 Series) and 6000 Series dart games, currently using a TMS9118 Video IC (chip).

Overview:

When replacing a TMS9118 with a TMS9128 Video IC, a jumper change must be made to the main board of the game. There are two styles of Galaxy main boards and one style 6000 main board. Instructions are given below for all three styles. See Figures 1 and 2 to determine which style of Galaxy main board you are servicing. **Please read through the instruction before attempting to make any changes. If you are unsure how to proceed, contact our technical staff at 800-435-8319.**

Instructions: Galaxy (New Style)

1. Disconnect the main power to the game and remove the main board from the cabinet.
2. Remove the old TMS9118 IC from socket U5.
3. Check the back of the board for the jumper wire from U9-Pin 38 to U5-Pin38. If the jumper exists, un-solder the end at U5-Pin 38, and re-solder it to pin 37 on the U5 socket. **See Figure 3.**
4. Install the new TMS9128 IC into socket U5.
5. Re-install the main board into the cabinet, apply power, and check for proper video performance.

Instructions: Galaxy (Old Style)

1. Disconnect the main power to the game and remove the main board from the cabinet.
2. Remove the old TMS9118 IC from socket U5.
3. Remove the 6809 IC from socket U9.
4. Cut the existing jumper trace on the front of the main board as shown in Figure 2.
5. Solder an insulated wire jumper (22 gauge) between Pin 38 of U9 and Pin 37 of U5.
6. Re-install the 6809 IC into socket U9 and install the new TMS9128 IC into socket U5.
7. Re-install the main board into the cabinet, apply power, and check for proper video performance.

Instructions: 6000 Series

1. Disconnect the main power to the game and remove the main board from the cabinet.
2. Remove the old TMS9118 IC from socket U11.
3. Remove the 6809 IC from socket U3.
4. On the back side of the board, **locate the trace shown in Figure 4.** The trace goes from Pin 38 of U11 to a solder connection on the board. Cut this trace.
5. Solder an insulated jumper wire (22 gauge) from Pin 38 of U3 to Pin 37 of U11.
6. Re-install the 6809 IC into socket U3 and install the new TMS9128 IC into socket U11.
7. Re-install the main board into the cabinet, apply power, and check for proper video performance.

To convert back to a TMS9118 from a TMS9128

(Be sure to remove U5 and U9 from their sockets before soldering on the board.)

1. If the board has the jumper already installed on the back: Move the jumper from pin 37 to pin 38 on the U5 Socket.
2. On boards with no jumper wire on the back. Locate JP1 and JP2 between U9 and U5 (fig 1).
 - a. Cut the trace across JP1.
 - b. Solder a jumper wire across JP2.

Figure 1: Galaxy - New Style Board

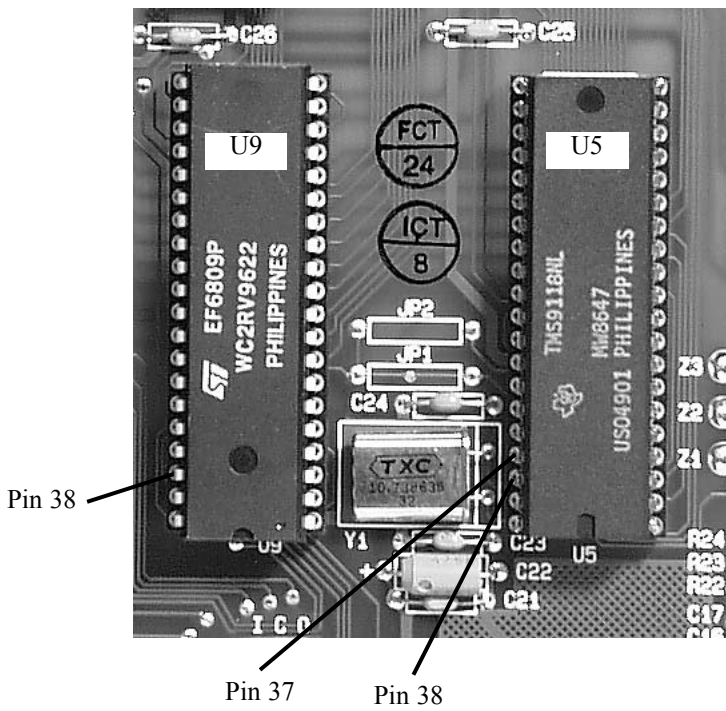


Figure 2: Galaxy - Older Style Board

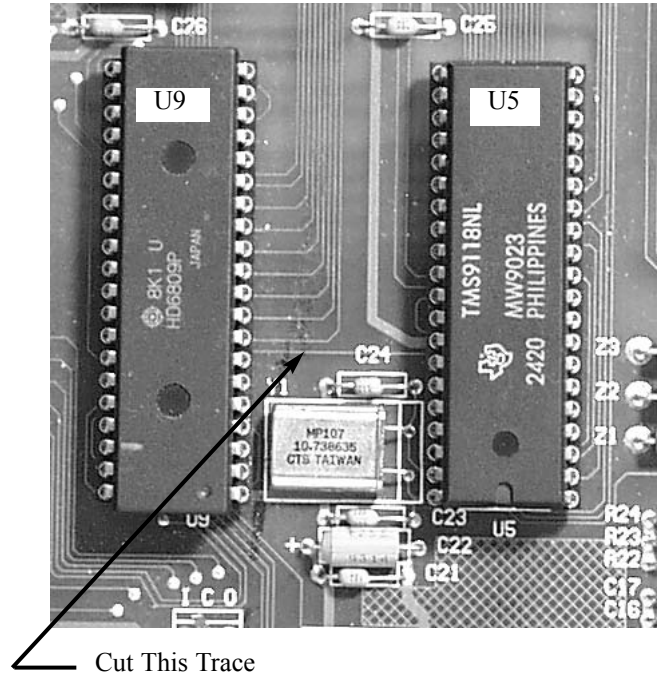


Figure 3: Galaxy (Back Side)

