

Quality Assurance Division

Model #

Mega Drive 1 VA4 - PAL

No.

008

Date

12/13/94

## SUBJECT:

While using the MD1VA4 with the 32X problems like the screen shaking, game sound slows down and/or the game locks up.

## REASON:

While using the MD1VA4 with the 32X at room temperature, it has been found that when certain IC's, capacitors, etc. heat up they cause the screen to shake, slow the game sound and cause the game to freeze.

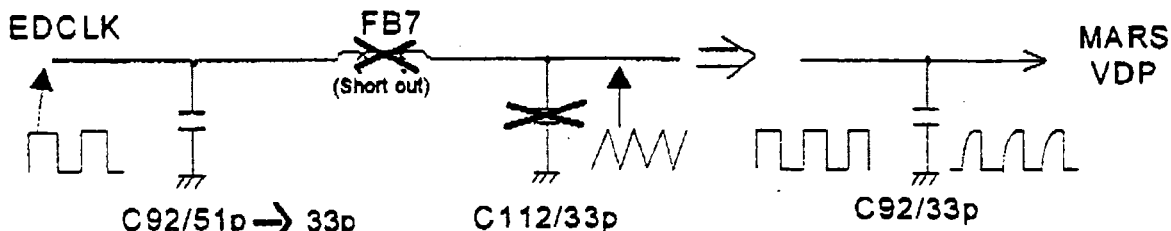
## MODIFICATION:

The signal shape of the EDCLK must be improved to fix this problem, see CIRCUIT CHANGE below.

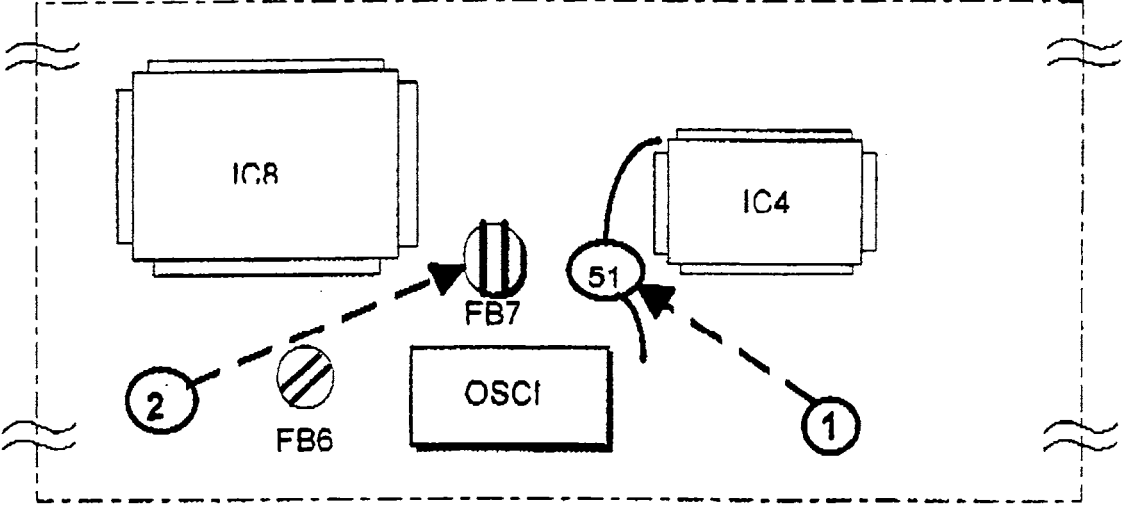
## DETAILS:

1. Change C92 from a 51pf capacitor to a 33pf ceramic capacitor. It is important that the capacitor be located next to IC4.
2. Remove FB7 and insert a jumper wire or short out FB7.
3. Remove C112. This is a 33pf ceramic capacitor that has been added to the back side of the circuit board. It is connected to the top side of C19.
4. Add a jumper wire to the back side of the circuit board between the top of C10 (this should be the same point electronically as IC4 pin 31) to ground (the middle pin of EM16 is recommended). Please be sure to use a slightly heavier gage of wire to ground (heavier than AWG28 with a wire diameter of 0.38mm).

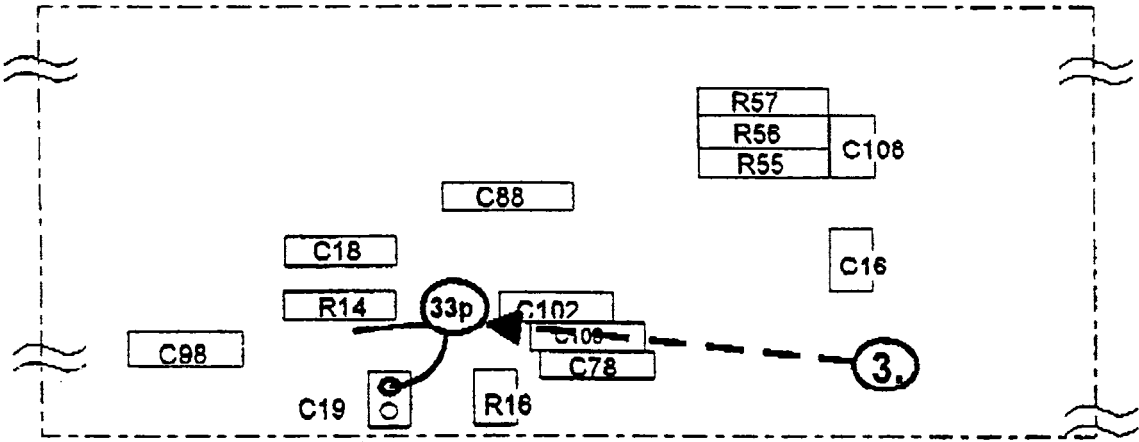
### Circuit Change



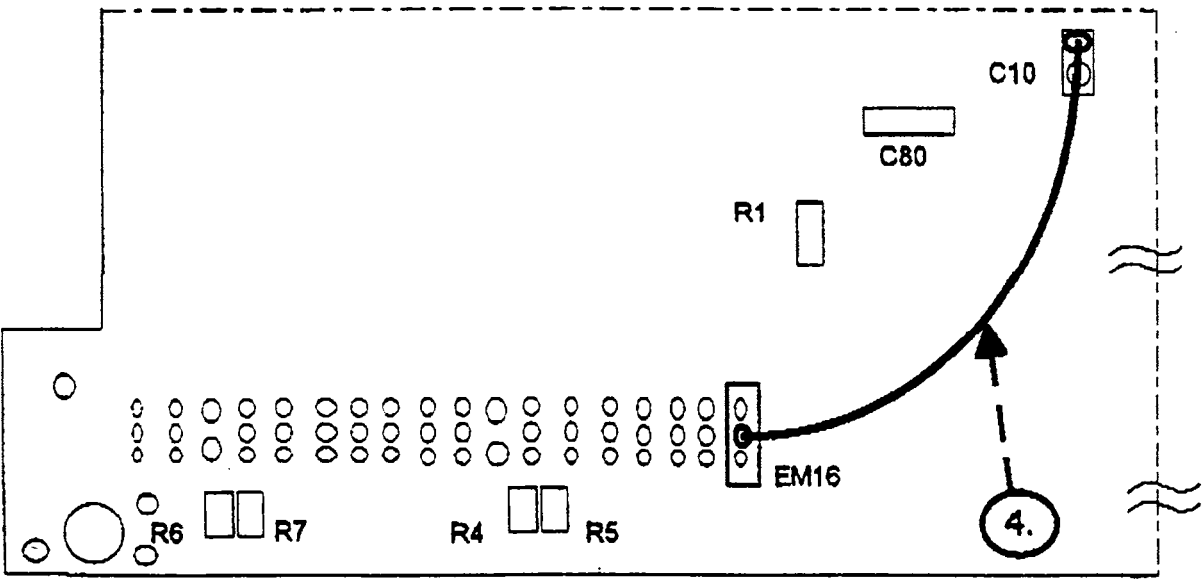
Front of IC BD M5 Pal VA4



Back of IC BD M5 Pal VA4



Back of IC BD M5 Pal VA4



## Quality Assurance Division

Model #
Genesis 32X & MD 32X

No.
011

Date
16 March 1995

### SUBJECT:

An SCA (Standard Cell Array) type of IC4 has replaced the gate array type originally used on 32X. Due to this change in IC types two capacitors (C96 & C97) have been added. Please refer to the chart below for possible configurations you may encounter.

### DETAILS:

Value of C96 & C97 depends on part number of IC1/IC2	IC4 (SCA) C96 & C97	IC4 (Gate Array) C96 & C97
IC1 & IC2 Pt# 315-0922	47 pf	NOT INSTALLED
IC1 & IC2 Pt# 315-0922A	47 pf or 100 pf	NOT INSTALLED
IC1 & IC2 Pt# 315-0988	100 pf	NOT INSTALLED

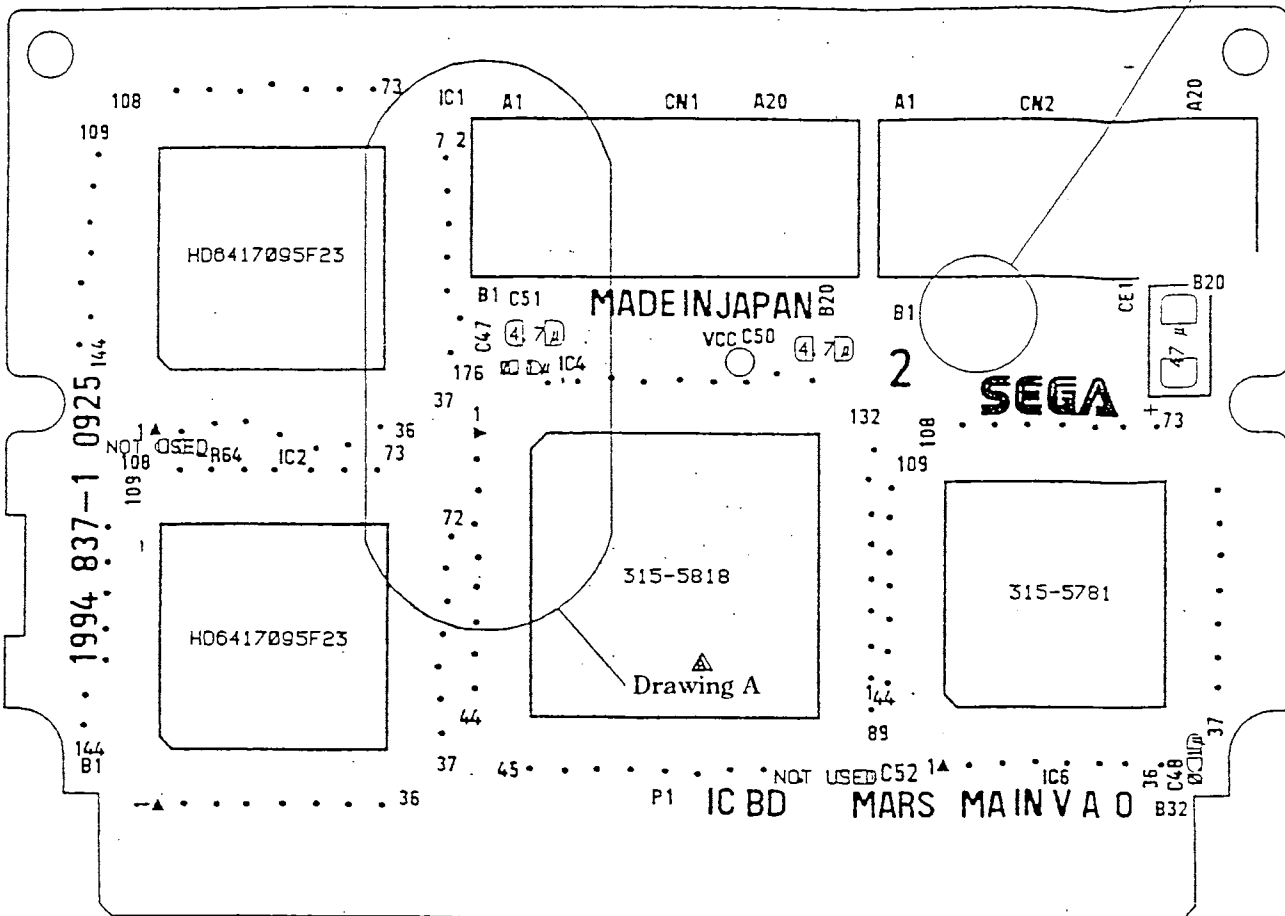
### NOTE:

- Two 100 pf capacitors have been incorporated into the 32X VA2 version.
- Two capacitors are added to the 32X VA0/VA1 versions as per the above chart

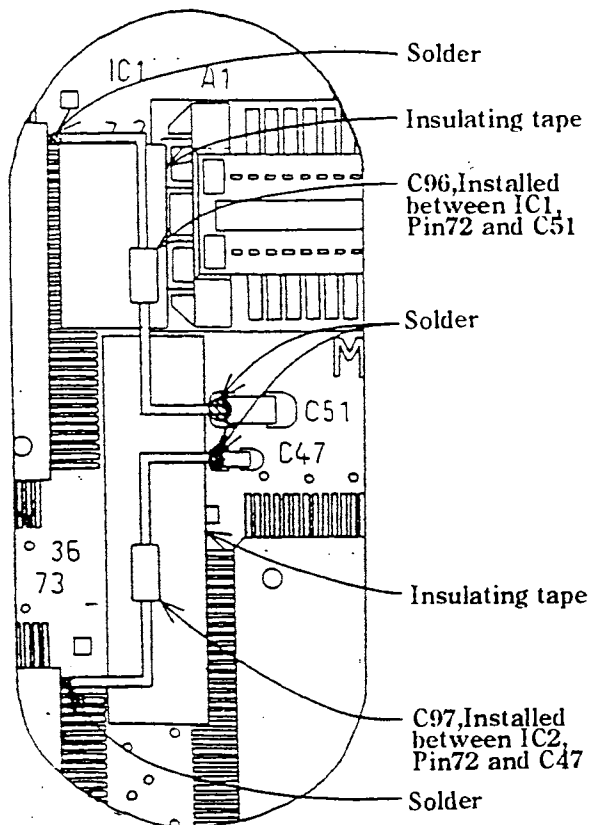
Schematics / Diagrams Attached



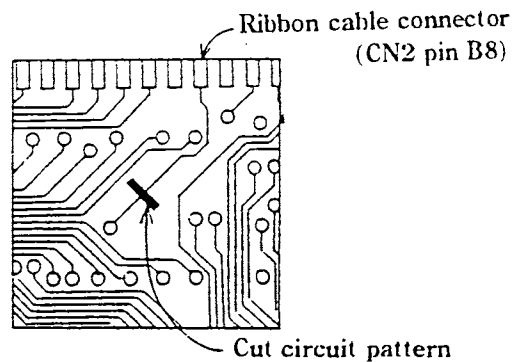
Authorizing Signature



Drawing A



Drawing B



Quality Assurance Division

Model #

MD 32X / MD 1 (VA4)

No.

012

Date

28 March 1995

## SUBJECT:

Modification for lock up problem experienced with when 32X is used in combination with MD 1 (VA4) version.

## REASON:

The signal quality of the VCLK signal has been identified as the problem area. By removing two capacitors in the VCLK signal line signal quality is greatly improved.

## DETAILS:

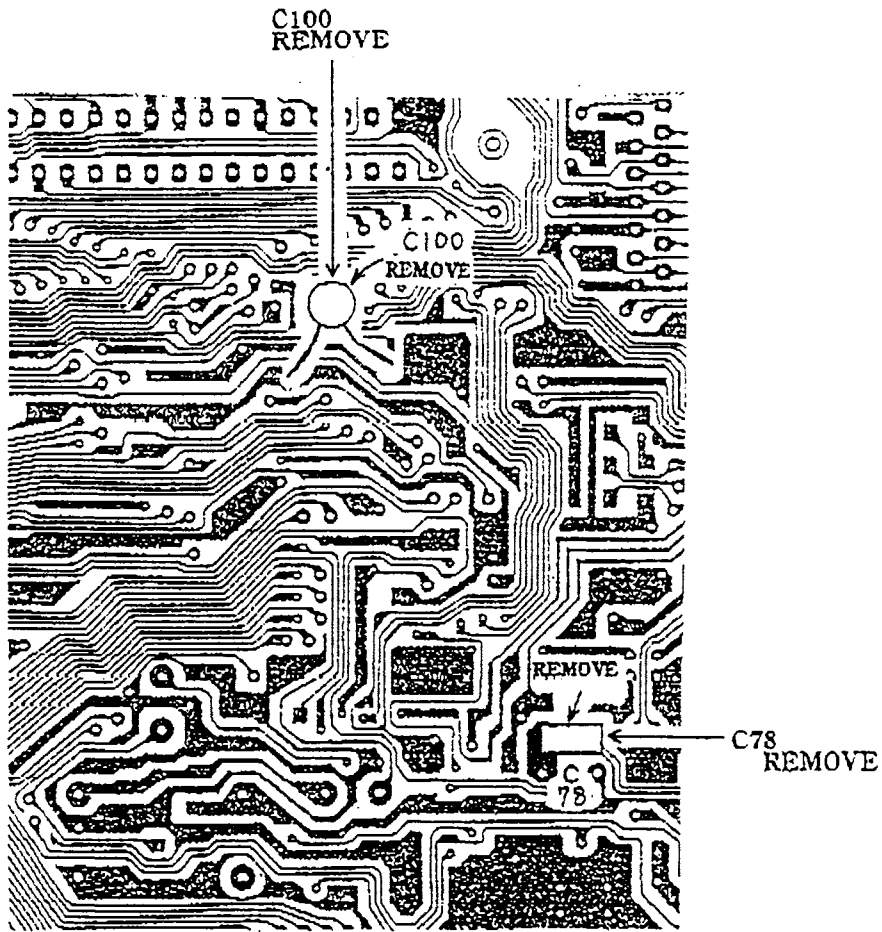
Remove C78 and C100.

Also be sure to perform the MD 1 (VA4) version screen shake modification as this also has a positive affect on this lock up problem.

Schematics / Diagrams Attached



Authorizing Signature



Rear side (termination side) of MD1(VA4) Circuit Board.

## Quality Assurance Division

Model #

32X / MD1 (VA 6.0, 6.5, 6.8)

No.

014

Date

12 April, 1995

### SUBJECT:

Modification for lock up problem seen with some 32X units when used in combination with MD1 (VA6.0, 6.5 or 6.8).

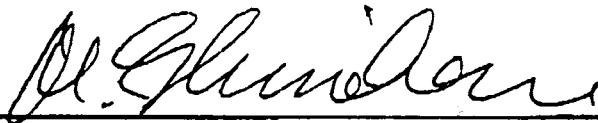
### REASON:

The signal quality of the VCLK signal has been identified as the problem area. By removing one capacitor and adding a jumper line in the VCLK signal line, signal quality is greatly improved.

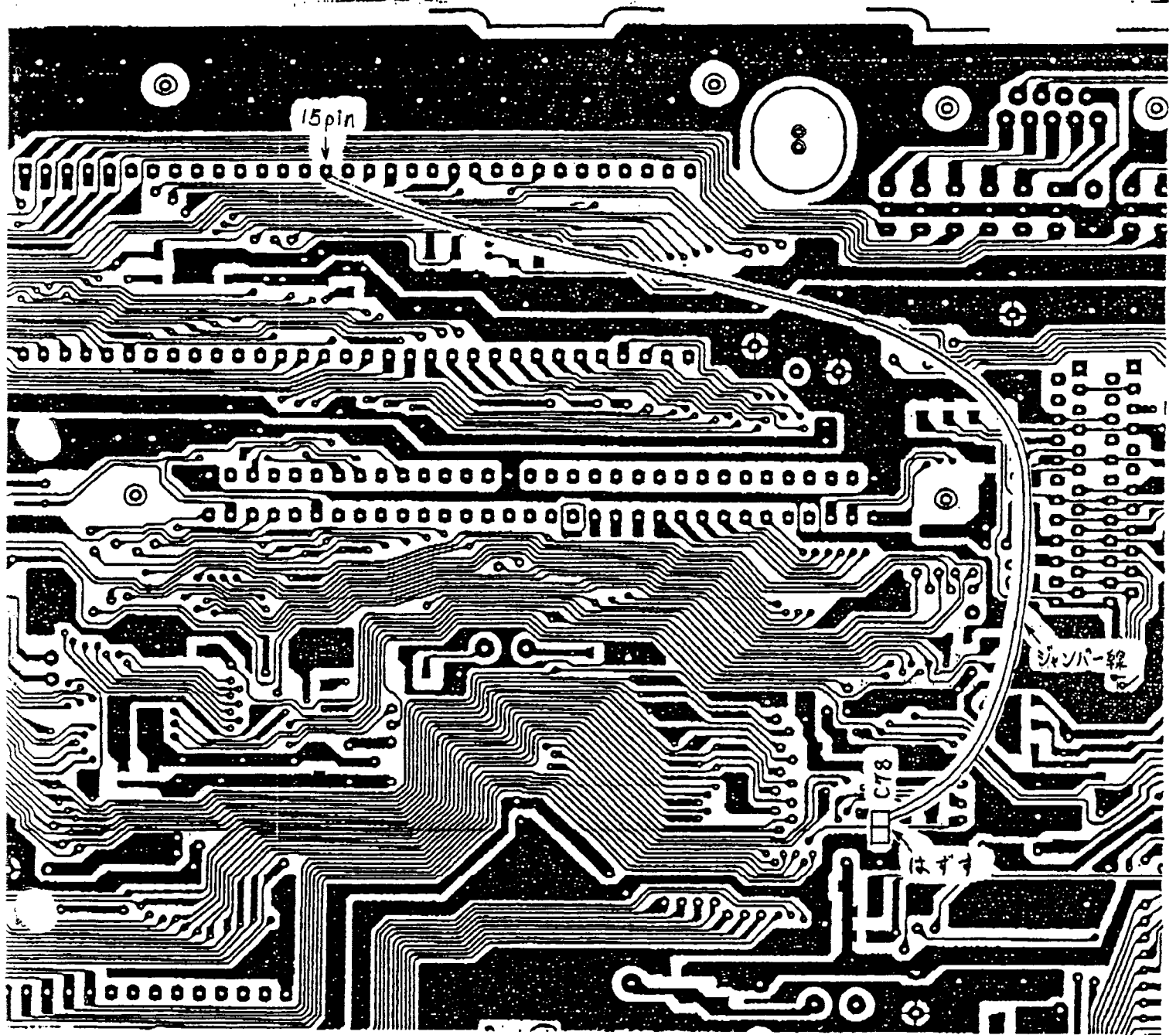
### DETAILS:

Remove C78 and add a jumper line from IC 1, pin 15 to the signal side of the pad where C78 has been removed.

Schematics / Diagrams Attached



Authorizing Signature



MD1 VA5, VA6 改造方法 (片面パターン図)