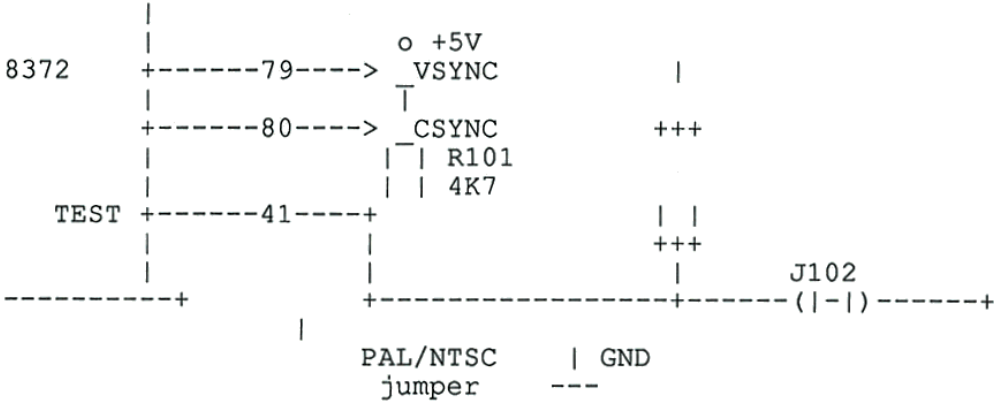
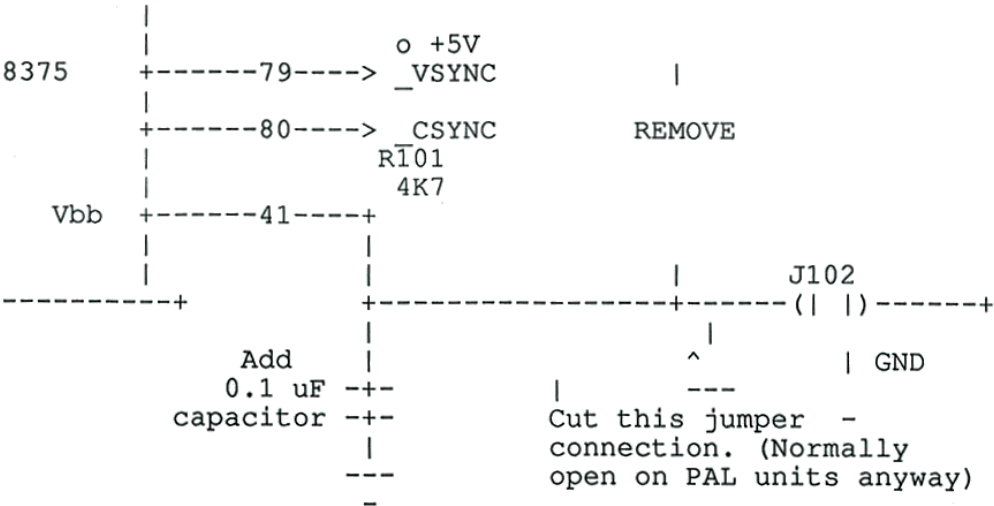


```
> ----- REWORK INSTRUCTIONS: -----
>
> New AGNUS (8372 => 8375)
> =====
>
> (From ECR WC2262):
> -----
>
> The 318069-029 AGNUS chips has been replaced by 318069-16 (PAL) and
> 318069-17 (NTSC). These version have Vbb connected to what was the
> NTSC/PAL pin of the -029.
>
> Rework when upgrading:
> -----
> An 0.1 uF must be added between this Vbb pin and ground on the PCBA.
> R101 (4.7Kohm) has to be removed and J102 cut.
>
> MY NOTE: The old AGNUS (318069-029) was a 'two-versions-in-one' chip,
> that could be set to PAL or NTSC by J102. This is not possible
> with the new chips. Thus two versions are now available.
```

This is the 'normal' setup (Schematic 312721):



This is the new setup (with 318069-16/17):



ECR/ECO NUMBER WC2262 --- SERVICE INFORMATION --- PRINTED 12.11.92

=====

SUBJECT Use 8375 instead of 8372 AGNUS requires rework.

MODEL A2000

=====

ISSUE 318069-029 AGNUS has been replaced by 318069-16 (PAL) and 318069-17 (NTSC). These versions have Vbb connected to what was the NTSC/PAL pin of the -029.

ACTION A 0.1 capacitor uF must be added between this pin (41) and ground.  
Also the R101 (4k7 ohms) must be removed and J102 cut open.

NOTES The old AGNUS 318069-029 (8372) is now replaced by two new versions (318069-16 and 318069-17). They are for PAL and NTSC use respectively and cannot be set otherwise.

PIN 41 has a new meaning and the rework mentioned above must be implemented to make the 318069-16/17 work in old boards.

NOTE: see also ECR WC2525 in this folder. Jumper J102 must be open always.

ECR/ECO NUMBER WC2525 --- SERVICE INFORMATION --- PRINTED 12.11.92

=====

SUBJECT A2000 with 318069-16/-17 AGNUS and J102 closed: REWORK!

MODEL A2000

=====

ISSUE Due to a misunderstanding, recent A2000 production units in your warehouse may have a jumper (J102) closed which needs to be opened.

Affected units are said to be working well for 30 minutes and will then show a distorted/damaged display.

ACTION West Chester PA suggests that you inspect your warehouse, locate all rev 6.4 A2000 units with -16/-17 AGNUS parts which have the jumper J102 closed. The J102 jumper needs to be opened.

NOTES Background: When the 318069-16 and -17 AGNUS chips were introduced to production, the meaning of jumper J102 has changed. Previously, it decided whether the machine was PAL or NTSC. If open (PAL) it would put +5V at pin 41 of previous AGNUS chips.

ECR WC2622 was issued, which would remove the pull-up resistor R101 and instead connect a .1uF capacitor from pin 41 to ground. J102 is now unused and must be open. ECR 2622 is also found in this database.

If J102 is closed (as it has happened), the .1uF capacitor (XC99) is shorted to ground which also connects pin41 of AGNUS 318069-16 and -17 to ground. And that causes the display distortion effects after the chip has warmed up.

During inspection and rework, you should also check the value of the XC99 capacitor - it must be a 0.1uF device.

To locate affected A2000 units, watch out for rev 6.4 motherboards. The revision number should be visible on the barcode label on the motherboard - unfortunately not visible on the shipping box.

The famous old RoboCity program is said to show the problem reliably after 30-45 minutes (blitter problems) if J102 is closed.

ECR/ECO NUMBER WC2633 --- SERVICE INFORMATION --- PRINTED 12.11.92

=====

SUBJECT Agnus 318069-18/-19, if used instead of -03, rework needed

MODEL A3000,A3000T

=====

ISSUE Agnus 318069-18 and -19 should be usable as substitutes for the -03 version in A3000 and A3000T builds. Pin 41 on the -18 and -19 versions is no longer switching between PAL and NTSC. It is now Vbb and thus J200 must be modified as per the instructions below.

ACTION The ECR explains the modifications to the factories if they want to use -18 and -19 Agnus as substitute for -03.

The NOTES section explains what you should observe if need to replace -18 (PAL) or -19 (NTSC) Agnus in an A3000/A3000T with defective -03 Agnus.

- NOTES
- 1) remove R203
  - 2) remove shunt from J200. Ie. open J200.
  - 3) Add 0.1uF cap to J200, from pin 1 to pin 2.

Not doing this rework, if -18/-19 is to be substituted for -03 Agnus, will probably cause the same problem that was reported earlier for A2000 which for some time were built with -18/-19 Agnus but without doing the R203/J200 rework: After some 30 minutes, the picture will get distorted.