Revised: 15-Dec-99

Model: Iris/Lilac (Controller Interface Type E)	Date: 15-Nov-99	No.: RA258014a

RTB Correction
The information underlined below has been added.

Subject: SC326 / Abnormal Image			Prepared by: T. Itoh
From: Technical Service Dept., GTS Division			
Classification:	☒ Troubleshooting	☐ Part information	☐ Action required
	☐ Mechanical	☐ Electrical	☐ Service manual revision
	☐ Paper path	☐ Transmit/receive	☐ Retrofit information
	☐ Other ( )		

It was reported in the Japanese market that image quality problems or SC326 occur due to a defective BUSSW board in the Interface Kit. This RTB outlines the troubleshooting procedure.

SYMPTOM

1. Blank Image or Vertical Lines

2. SC326

NOTE: This problem occurs in copy or scanning mode only. It does not occur during print jobs.

CAUSE

Normally, the input pins (#12 to 17) of IC18 on the BUSSW board are not used for the function of the IC18. However, due to an error in the software programmed in IC18, these pins were allocated as output pins. The resulting increase in power consumption causes the IC to heat up and malfunction.

NOTE: After analysis and testing of the PCBs returned from the field, it was found that the cause explained above was a majority of the causes. The other causes are isolated cases.

1. Blank Image or Vertical Lines

When the IC does not renew the scanned image data due to the cause explained above, blank image or vertical lines appear on the outputs depending on the image of the first line scanned in.

- If the first line scanned in is blank, the output is blank.
- If the first line scanned in contains an image, the output will contain vertical lines.

2. SC326

When the IC does not send the LSYNC signal to the ASIC, the FGATE signal cannot be generated (causing SC326).

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SOLUTION

On the production line

The BUSSW board has been modified twice as shown below. The boards thought to be causing the problem are #A8485108. The problem does not occur with the Interface Kits containing #A8485105 or #A8485112, as these boards do not use IC18.

Model Code	Modification (1)	
	Old P/N	New P/N
A848-17, 27, 55, 65	A8485105	A8485108

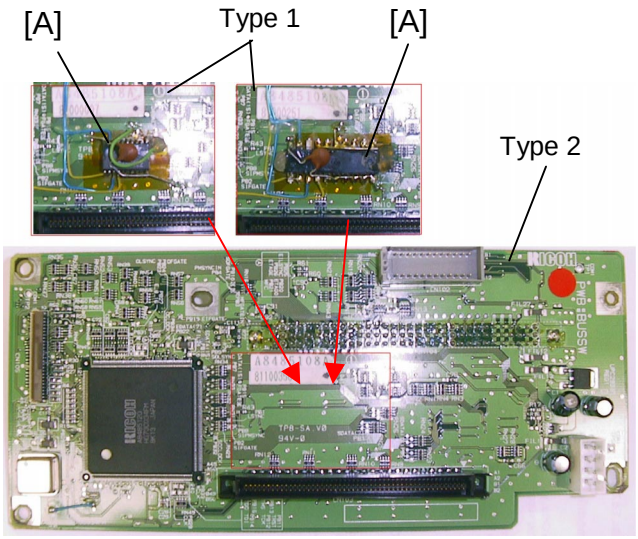
Modification (2)	
Old P/N	New P/N
A8485108	A8485112

- Additional Information – Modification -

As shown in the picture, there are two types of BUSSW board (P/N #A8485108). Type 1 is the board on which an IC [A] has been manually soldered. Type 2 contains an IC18 soldered onto the circuit pattern by machine.

Type 1 is the board that was modified in the production (from #A8485105). This board contains one of the two ICs as shown in the picture to the right [A]. The only difference is in the size.

The function of the additional IC and IC18 is exactly the same. IC18 is soldered onto the reverse side of the Type 2 board.



Cut-in Serial Number

Modification (1)

Product Code	Cut-in Serial Number
A848-17	H0990300475
A848-27	H0990300944
A848-55	From first mass production
A848-65	From first mass production

NOTE:
IC18 was added to the PCB for both Japanese and overseas versions since the board was used for all machines.

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Modification (2)

Product Code	Cut-in Serial Number
A848-17	H0990600001
A848-27	H0990600176
A848-55	L0409060095
A848-65	L0409060180

NOTE:
The same PCB was used for Japanese and overseas versions (with IC18 installed). However, since only the Japanese versions actually use IC18, it was removed from the overseas versions. The board for all overseas versions has then been given a new part number.

- Additional Information – Cut-in Serial Number -

#A8485105 has been modified to #A8485108 by soldering an IC onto the board as explained. This special modification was not controlled at the factory. Therefore, it is not possible to specify the exact serial numbers of the I/F units that contain the modified board. The table below contains our estimation of the serial number. The modification was applied to a total of 112 boards, which means that 112 of the following 159 I/F units may contain modified boards.

	Serial number	No. of units
A848-17	H0990300648 - 0660	13 units
	H0990300692 - 0709	18 units
A848-27	H0990301002 - 1015	14 units
	H0990301188 - 1202	15 units
	H0990301248 - 1316	69 units
A848-65	L0409030014 - 0043	30 units
	Total	159 units

The action described on the following pages is required for the field machines equipped with the Interface Kits containing #A8485108. The serial numbers of these interface kits are described below.

In the field

Serial numbers of I/F kits thought to be causing this problem:

Product Code	From	To
A848-17	H0990300475	H0990500282
A848-27	H0990300944	H0990500512
A848-55	From first mass production	L0409050064
A848-65	From first mass production	L0409050094

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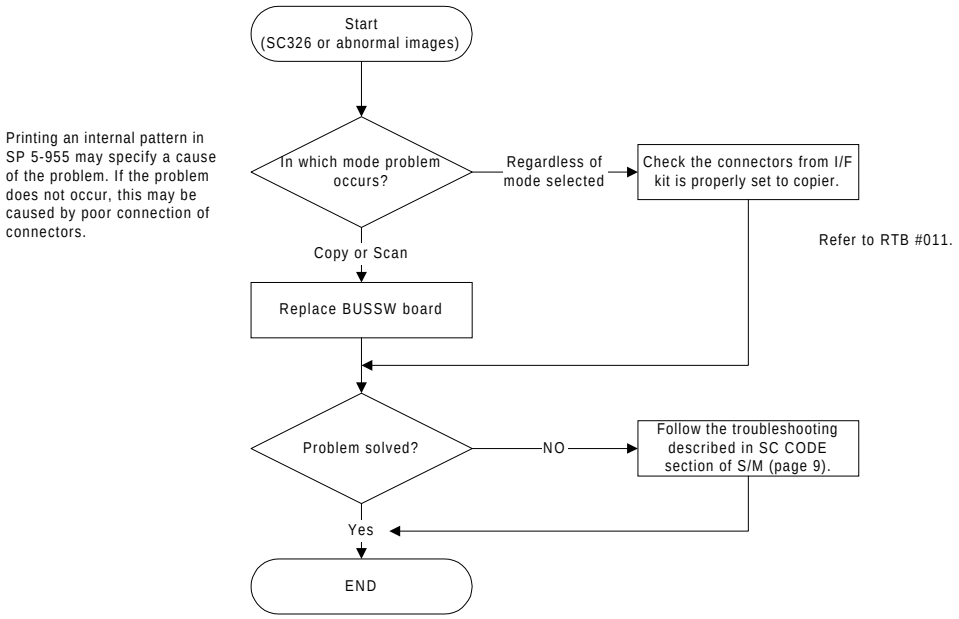
[1] Troubleshoot as shown below when the problem is reported.



NOTE: If the problem is related to IC18, the replaced (old) PCB can be re-used after cutting pins #12 - 17. (If the PCB is Type 1, it is not repairable and therefore not re-usable.) If occurrences still continue after cutting the pins, the problem is being caused by another PCB component.

NOTE: If the BUSSW board (IC18) causes the problem and the part is not available, cutting the pins (#12 - 17) of IC18 as explained section [2] on page 6 of this RTB solves the problem. (If the PCB is Type 1, the procedure on page 6 is not applicable.)

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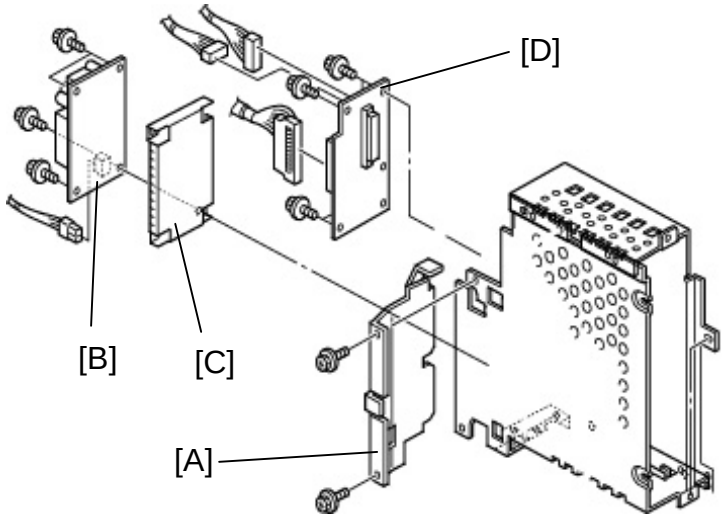
- BUSSW Board Replacement Procedure -



1. Turn off the main switch and unplug the power cord.
2. Disconnect the cable(s) from the controller.
3. Remove the exterior covers (used toner cover and I/F unit cover).
4. Remove the controller from the I/F unit (6 screws).
5. Remove the cover plate [A] (2 screws).
6. Remove the AC drive board [B] (4 screws and 2 connectors).
7. Remove the shielding plate [C].
8. Replace the BUSSW board [D] (4 screws, 1 grounding screw, and 2 connectors).

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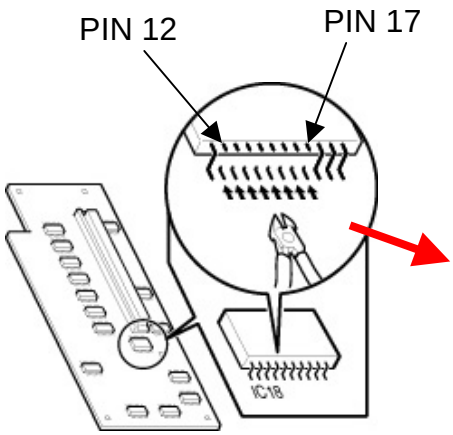
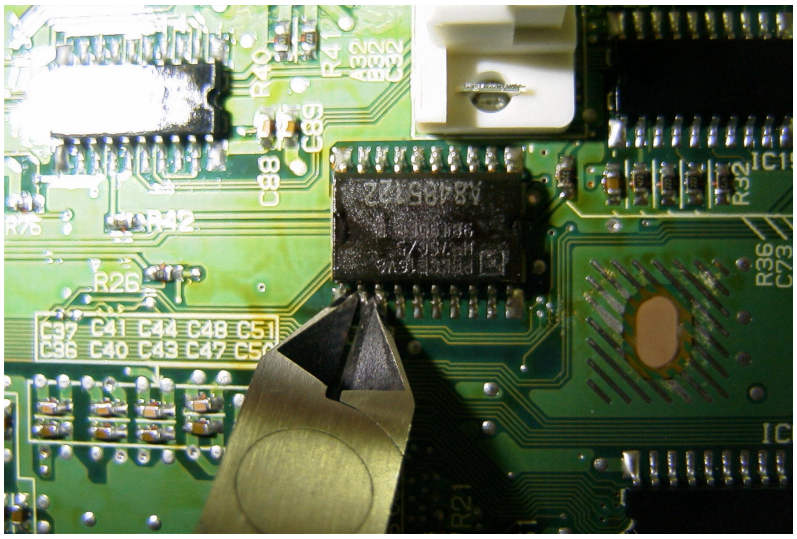
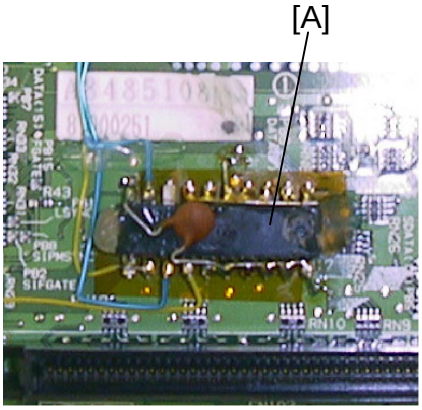
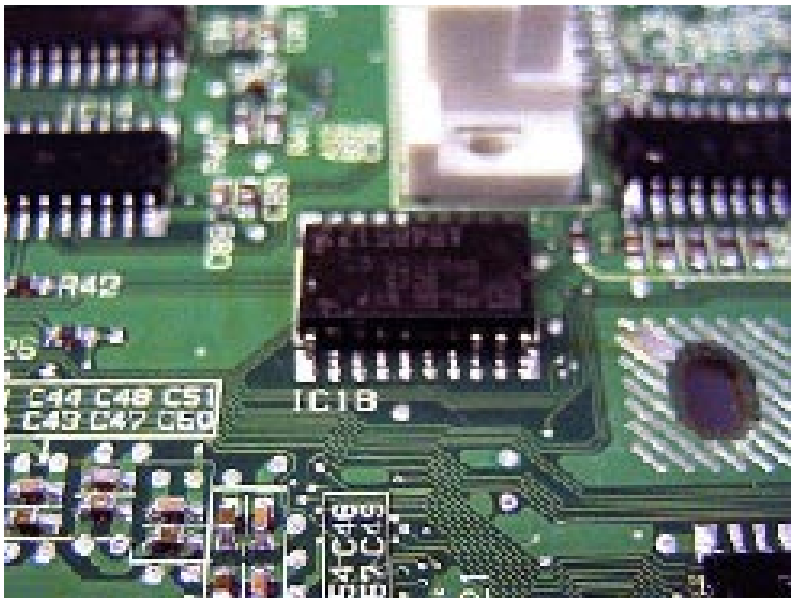
[2] Follow the procedure below at installation or next visit to prevent any future occurrence.





NOTE:
If the BUSSW board contains an IC [A], that has been manually soldered on, the procedure described below is not applicable. The BUSSW board would need to be replaced with #A8485112 when the problem occurs.





1. Remove the BUSSW board by following the procedure described on the previous page.
2. Using small cutting pliers, cut pins #12 to 17 so that they do not touch other pins or patterns. This will prevent a short circuit.
3. Remove the cut pins from the board surface.

NOTE: Be careful not to damage the PCB pattern or cut other pins. If pins #11 or 18 are cut, this will cause SC326.