Trouble shooting for JV33-130/160's electrical happening

Mimaki USA
Tech center
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When you meet JV33-130/160's trouble like bellow, please read this trouble shooting.

And then, if it is possible, please send all of broken part to us (Atlanta office).

A. Head unit assy.

B. Main PCB

C. Ink slider PCB

D. Main FFC (main PCB－ink slider PCB)

E. Head FFC (ink slider PCB－head unit assy)

1. Trouble shooting for **Error 07 (HEAD) or Error 07 (VOLTAGE)**

(1) Turn the main power OFF, and turn the main power ON after open the front cover.

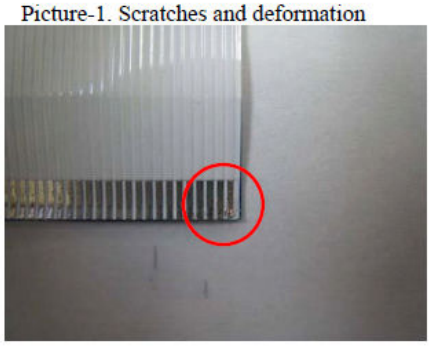
(2) During indicating [close a cover], press [FUNCTION] and Reconfirm the head temperature with [#TEST]－[TEMPERATURE.CHK]－[NOZZLE TEMP].

In case of [NG] or recurrence Error 07, execute the followings.

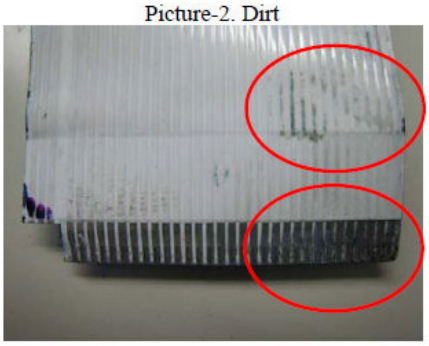
(3) Make sure that corresponding HEAD FFC and MAIN FFC are connected in the right way, and continue (2).

If you meet conditions like bellow, replace with a new one.

Picture-1. Scratches and deformation

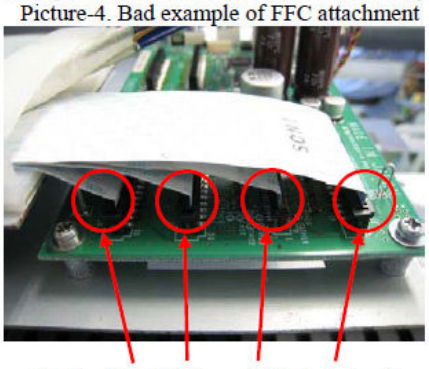


Picture-2. Dirt



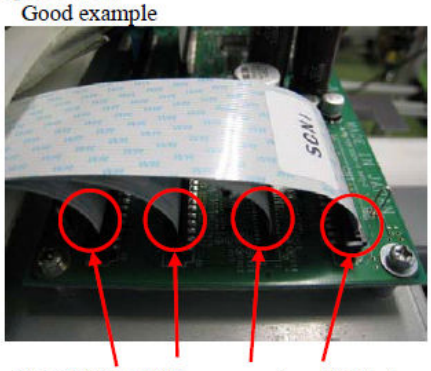
Also you find the other FFC has been already damaged, replace them.

Picture-4. Bad example of FFC attachment



It is bad that FFCs are folded obviously

Good example



It is OK that FFC are curved, not folded.

Check the Tech. Info. T-587-T815.

(4) Replace the corresponding printing head with a new one, and continue (2).

(5) Replace the ink slider PCB with a new one, and continue (2).

(6) Replace the main PCB with a new one, and continue (2).

2. Trouble shooting for **Error 09 (FPGA) or Error 09(HDC)**

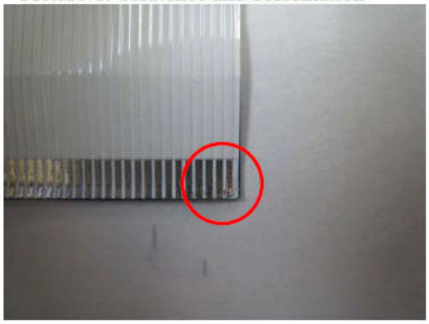
(1) Replace the main PCB with a new one, and check again. In case of recurrence, execute the followings.

(2) Replace the printing head with a new one, and check again.

(3) Replace the ink slider PCB with a new one, and check again.

(4) Make sure that corresponding HEAD FFC and MAIN FFC are connected in the right way, and check again. If you meet conditions like bellow, replace with a new one.

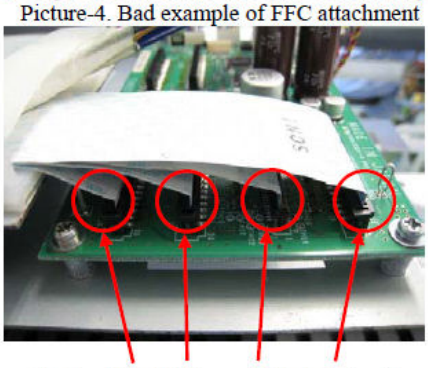
Picture-1. Scratches and deformation



Picture-2. Dirt

Also you find the other FFC has been already damaged, replace them.

Picture-4. Bad example of FFC attachment



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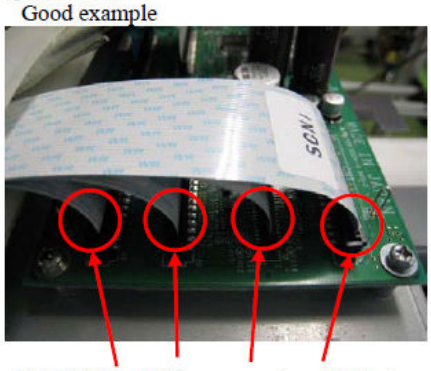


It is OK that FFC are curved, not folded.

3. Trouble shooting for **Error 200 (HEAD MEMORY)**

(1) Make sure the head memory cable connection, and check again.

(2) Check on the ink slider PCB. If an LED on the ink slider PCB gone out or been dark (or surface of IC written [E600074] is too hot), replace the ink slider PCB and the printing head with new one, and check again.

Attention!! Sometime the ink slider PCB should be broken without the LED never gone out or been dark.

In this case, execute [#TEST]－[ACTION TEST]－[Y－CUTTER]&[LED POINTER]

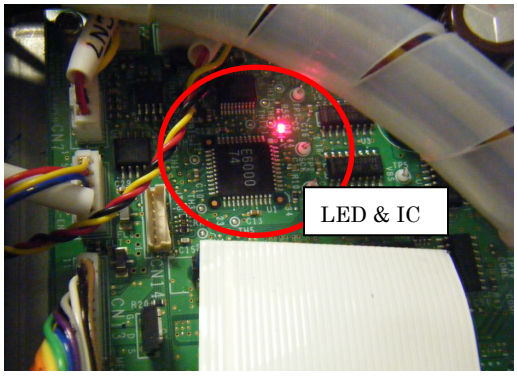
[SENSOR TEST]－[HEAD HEIGHT]

[TEMP. CHECK]－[HEAD TEMP]

[LINEAR ENCODER]

If something bad, try again after changing the ink slider PCB with a new one.

Top of the ink slider PCB

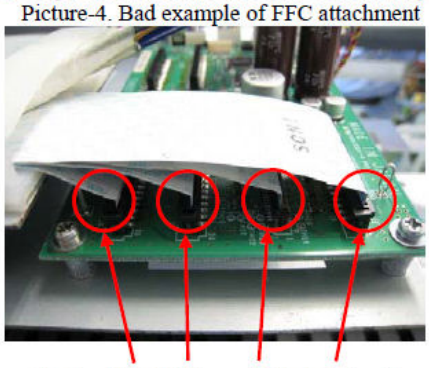


(3) Make sure that corresponding MAIN FFC is connected in the right way, and check again.

If you meet conditions like bellow, replace with a new one.

Also you find the other FFC has been already damaged, replace them.

Picture-4. Bad example of FFC attachment



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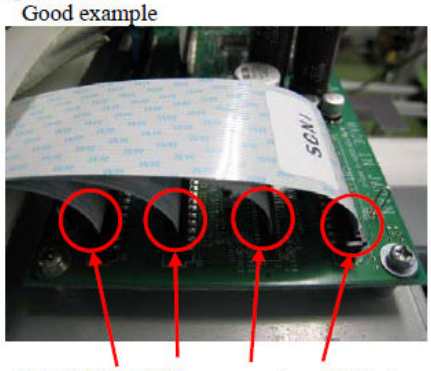


It is OK that FFC are curved, not folded.

(4) Replace the main PCB with a new one, and check again.

4. Trouble shooting for **Error 50 (MEDIA DETECT)**

(1) Make sure that there is no gap between the faces of platen and platen rubber.

(2) Execute [#TEST]－[PAPER SENSOR] to obtain sensor values at the media exist position and media non－exist position.

When the difference of values in more than ±50,detection is allowed.

If the difference is smaller, execute the following.

If obtain sensor values are near to 0 or 1024, execute (4)

(3) Clean the paper width sensor or replace with a new one, and check again.

(4) Make sure the paper width sensor cable connection, and check again.

(5) Check on the ink slider PCB. If an LED on the ink slider PCB gone out or been dark (or surface of IC written [E600074] is too hot), replace the ink slider PCB and the printing head with new one, and check again.

Attention!! Sometime the ink slider PCB should be broken without the LED never gone out or been dark.

In this case, execute [#TEST]－[ACTION TEST]－[Y－CUTTER]&[LED POINTER]

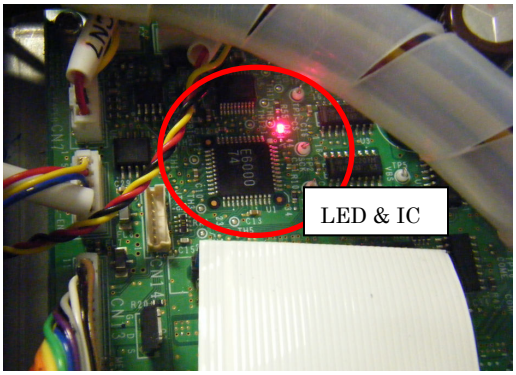
[SENSOR TEST]－[HEAD HEIGHT]

[TEMP. CHECK]－[HEAD TEMP]

[LINEAR ENCODER]

If something bad, try again after changing the ink slider PCB with a new one.

Top of the ink slider PCB

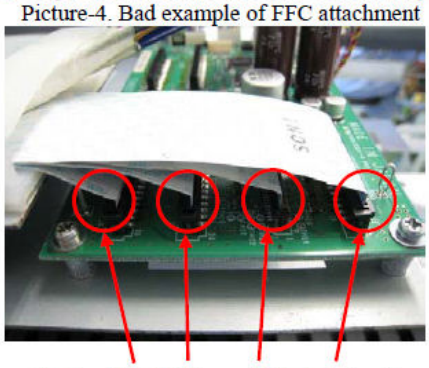


(6) Make sure that corresponding MAIN FFC is connected in the right way, and check again.

If you meet conditions like bellow, replace with a new one.

Also you find the other FFC has been already damaged, replace them.

Picture-4. Bad example of FFC attachment



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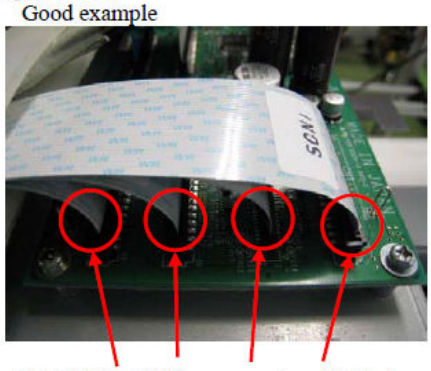


It is OK that FFC are curved, not folded.

(7) Replace the main PCB with a new one, and check again.

5. Trouble shooting for **Display doesn't show up**

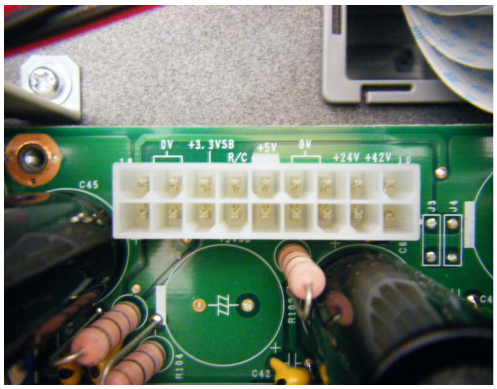
(1) Make sure the keyboard cable and the station cable connection.

(2) Replace the keyboard PCB with a new one.

(3) Turn the power OFF and disconnect the main DC cable from the power supply.

(4) Turn the power ON end check the voltage in the power supply (+42V,+24V,+5V×2 lines,+3.3V) with multi meter (use the DC voltage range).

DC voltage output connector CN5



Connector arrangement for voltage

0V	0V	+3.3V	R/C	+5V	0V	0V	+24V	+42V
0V	0V	+3.3V	+5V2	+5V	0V	0V	+24V	+42V

+5V2=+5VSB(+5V for sleep mode)

And check the fan in the power supply is turning or not.

If one or some of voltages doesn't output, or fan isn't turning, replace the power supply with a new one.

If possible, adjust voltages(+42V,+5V×2lines,+3.3V) with adjustable resistances in the power supply.

And then if you turn the power ON with main PCB, wait till +42V come down to lower than **+1V.**

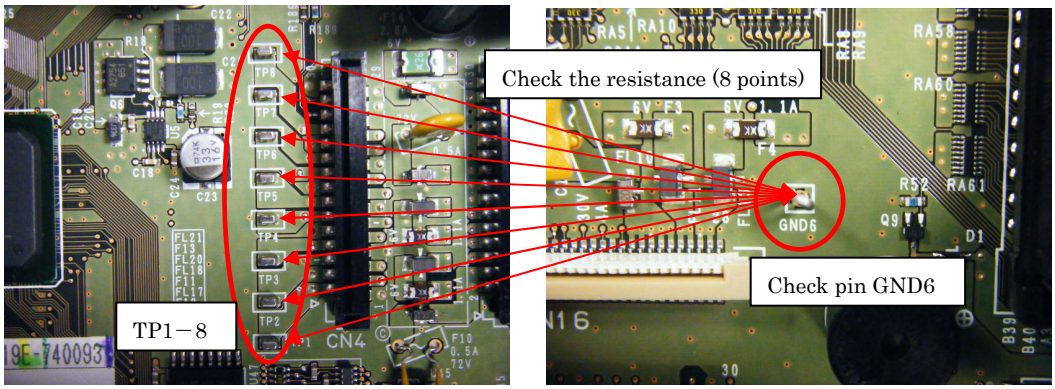
(Because +42V has big condenser in power supply, so sometime main PCB is broken by remain electric charge of +42V)

(5) Check the resistances between top of check pins named [TP1－TP8] and circuit ground on the main PCB after disconnecting all of cables from main PCB.

TP1－8 are near to MAIN FFC connector CN4.(bellow)

Check pins on the main PCB written [GND#] are circuit ground (# =1,2,3,4,…).(bellow)

TP1－8 check pins　　GND6 check pins



These resistance should be near to 17kΩ－18kΩ. If one or some of these resistances show near to 0Ω or unstable, the main PCB was broken cause of bad printing head. So replace the printing head and the main PCB with new one **same time.**

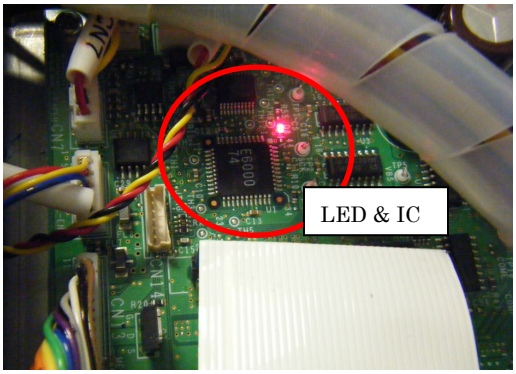
(6) Check on the ink slider PCB. If an LED on the ink slider PCB gone out or been dark (or surface of IC written [E600074] is too hot), replace the ink slider PCB and the printing head with new one, and check again.

Attention!! Sometime the ink slider PCB should be broken without the LED never gone out or been dark.

In this case, execute [#TEST]－[ACTION TEST]－[Y－CUTTER]&[LED POINTER]
[SENSOR TEST]－[HEAD HEIGHT]
[TEMP. CHECK]－[HEAD TEMP]
[LINEAR ENCODER]

If something bad, try again after changing the ink slider PCB with a new one.

Top of the ink slider PCB



6. Trouble shooting for **Can't turn on power Doesn't turn Power supply PCB's FAN**

(1) Same way as No.5 (3) to (6)

7. Trouble shooting for **Head firing strange.(Ex)Like "Dark band line" or "No print"**

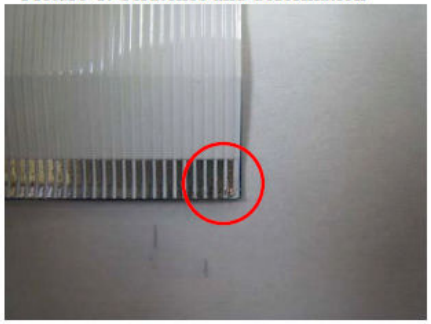
☆If printing head fired, replace the printing head with a new one first.

☆If printing head makes "dark band line(just 1 inch line of one or some colors)" or "No print".

(1) Make sure that corresponding HEAD FFC and MAIN FFC are connected in the right way. And check again.

If you meet conditions like bellow, replace with a new one.

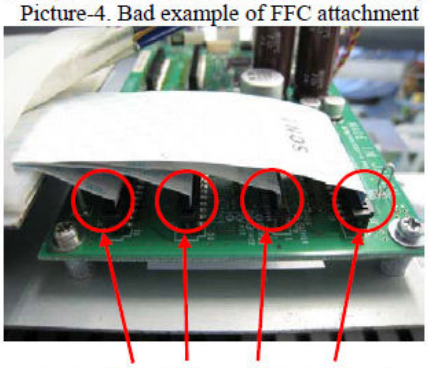
Picture-1. Scratches and deformation



Picture-2. Dirt

Also you find the other FFC has been already damaged, replace them.

Picture-4. Bad example of FFC attachment



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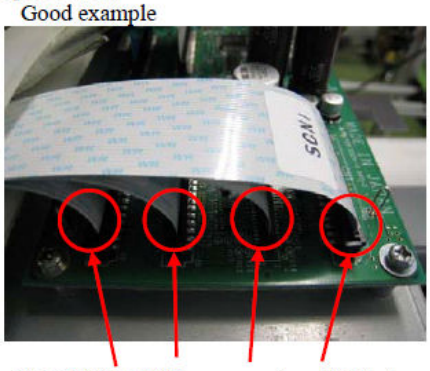
Good example



It is OK that FFC are curved, not folded.

(2) Replace the printing head with a new one, and check again.

(3) Replace the ink slider PCB with a new one, and check again.

(4) Replace the main PCB with a new one, and check again.

8. Trouble shooting for **Machine can't read media edge, and can't cut media.**

☆If machine can't read media edge (media width), try same way as No.4.

☆If machine can't cut media.

(1) Reconfirm the cutter solenoid movement with [#TEST]－[ACTIVE CHECK]－[Y CUTTER].

(2) Make sure the cutter solenoid connection to ink slider PCB, and check again.

(3) Check on the ink slider PCB. If an LED on the ink slider PCB gone out or been dark (or surface of IC written [E600074] is too hot), replace the ink slider PCB and the printing head with new one, and check again.

Attention!! Sometime the ink slider PCB should be broken without the LED never gone out or been dark.

In this case, execute [#TEST]－[ACTION TEST]－[Y－CUTTER]&[LED POINTER]

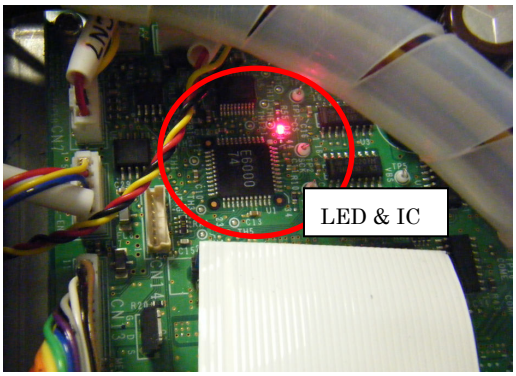
[SENSOR TEST]－[HEAD HEIGHT]

[TEMP. CHECK]－[HEAD TEMP]

[LINEAR ENCODER]

If something bad, try again after changing the ink slider PCB with a new one.

Top of the ink slider PCB



(4) Replace the cutter assy., and check again.

(5) Replace the main PCB, and check again.