

TROUBLE SHOOTING CHART

1. Premises

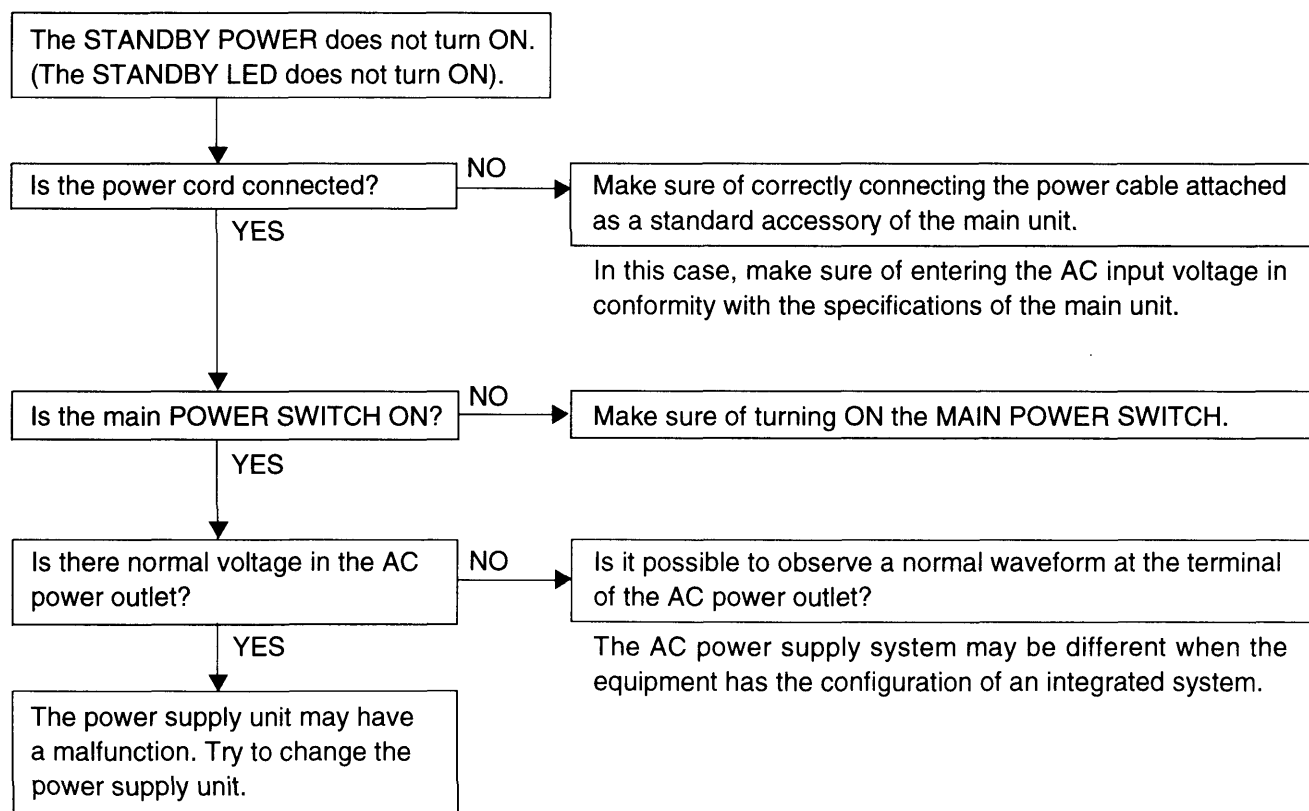
- 1) The troubleshooting chart is prepared by assuming basically as a premise that the PJ main unit has been installed in its regular state in conformity with the Instruction Manual, and that signals that can be received by the regular PJ are being entered.
- 2) On the other hand, as for the stability of the PJ referring to the drift of the convergence and other characteristics, it is basically assumed that the set has been submitted to a sufficient aging process lasting more than 30 minutes.

2. Characteristics of the XG Series PJ (about servicing)

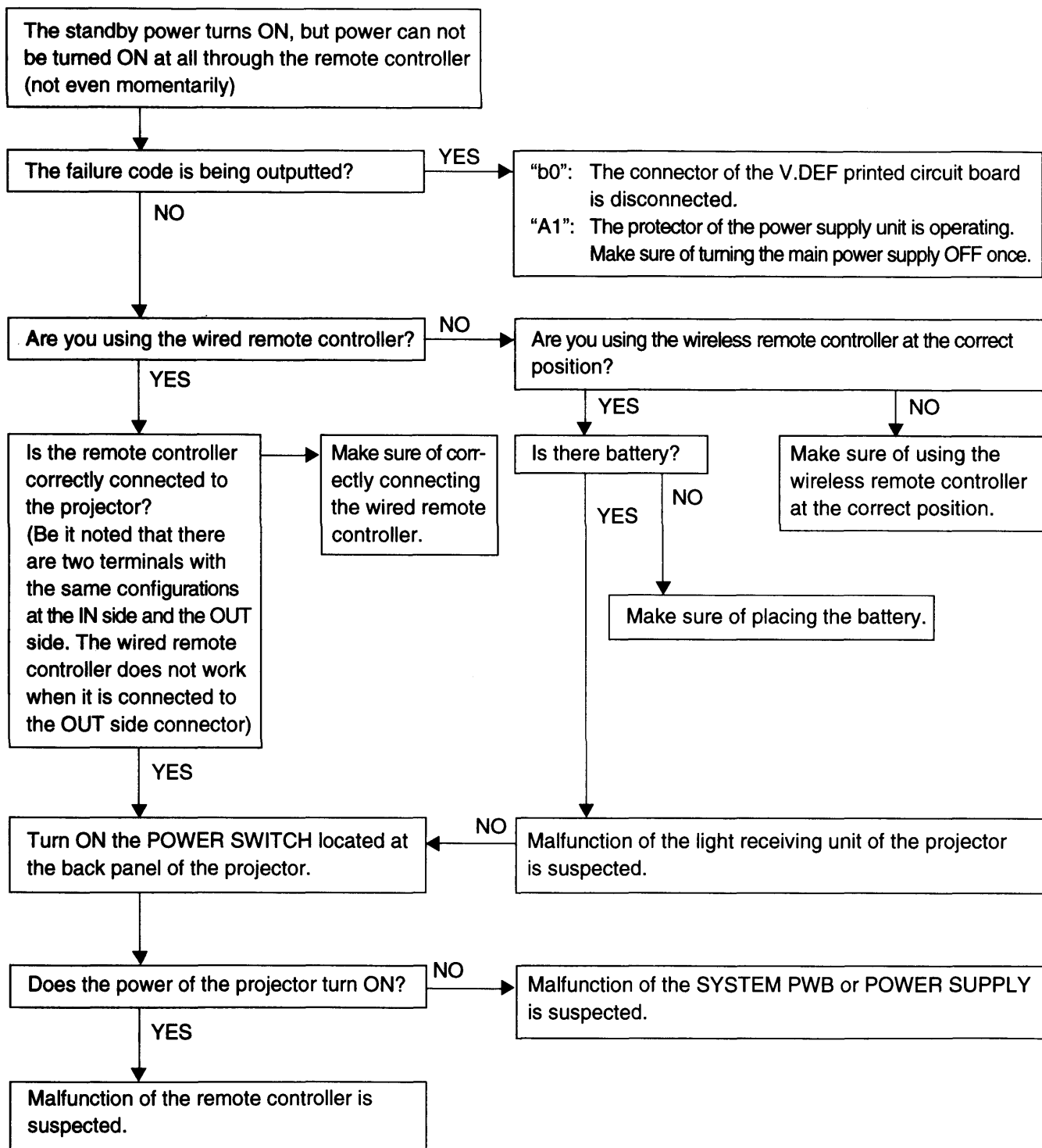
- 1) When this PJ has any malfunction, the part presenting abnormality is displayed by means of the 7SEG LEDs, that are located in the back panel. Therefore, in most of the cases, the service person can identify the place with malfunction in an easy and accurate way.
- 2) By using the PC control, it is possible to identify the place with malfunction and the servicing method.
- 3) When there is any abnormality in the PJ main unit, the SG Series PJ displays the failure code in the 7 SEG display panel, located at the back panel of the PJ main unit, and automatically turns the POWER OFF, for the sake of avoiding secondary malfunctions and for other protection purposes.

3. Troubleshooting contents

Refer to the attached sheets



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* When the wired remote controller is connected to the projected main unit, the wireless remote controller does not work. Attention must be paid to this detail.

The POWER turns ON once, but then it turns OFF immediately.

* When there is any malfunction in the PJ main unit and other parts, this PJ displays the failure code and turns the POWER OFF for the sake of protection against secondary malfunctions and other problems. Since there is much risk of occurrence of serious malfunctions in the set when such symptoms appear, make sure of carrying out the servicing and the repair in conformity with the failure code.

What is being displayed in the failure code?

"F8"?

YES

Outbreak of CONV DRIVE abnormal current

Turn the fixing screw of the CONV DRIVE printed circuit board into the loose contact state, and remove the CONV DRIVE printed circuit board from the C-MOTHER unit.
(When doing so, make sure of keeping the header connector "CA" connected as it is).

Connect the terminal TP4602 of the C-DRIVE printed circuit board with the terminal TP0GNG.

Turn the POWER ON once again, and then check the waveform of the TP04601 terminal on the CONV DRIVE printed circuit board.

Is the waveform normal?

NO

Malfunction in the D-CONV printed circuit board or WAVE printed circuit board is suspected.

YES

Malfunction in the C-DRIVE printed circuit board is suspected.

Make sure of checking the waveforms of the following parts of the WAVE printed circuit board:
Connector "WA", PIN# 9A, 9B, 23B, 23C, 24B, 24C

Are the waveforms normal?

YES

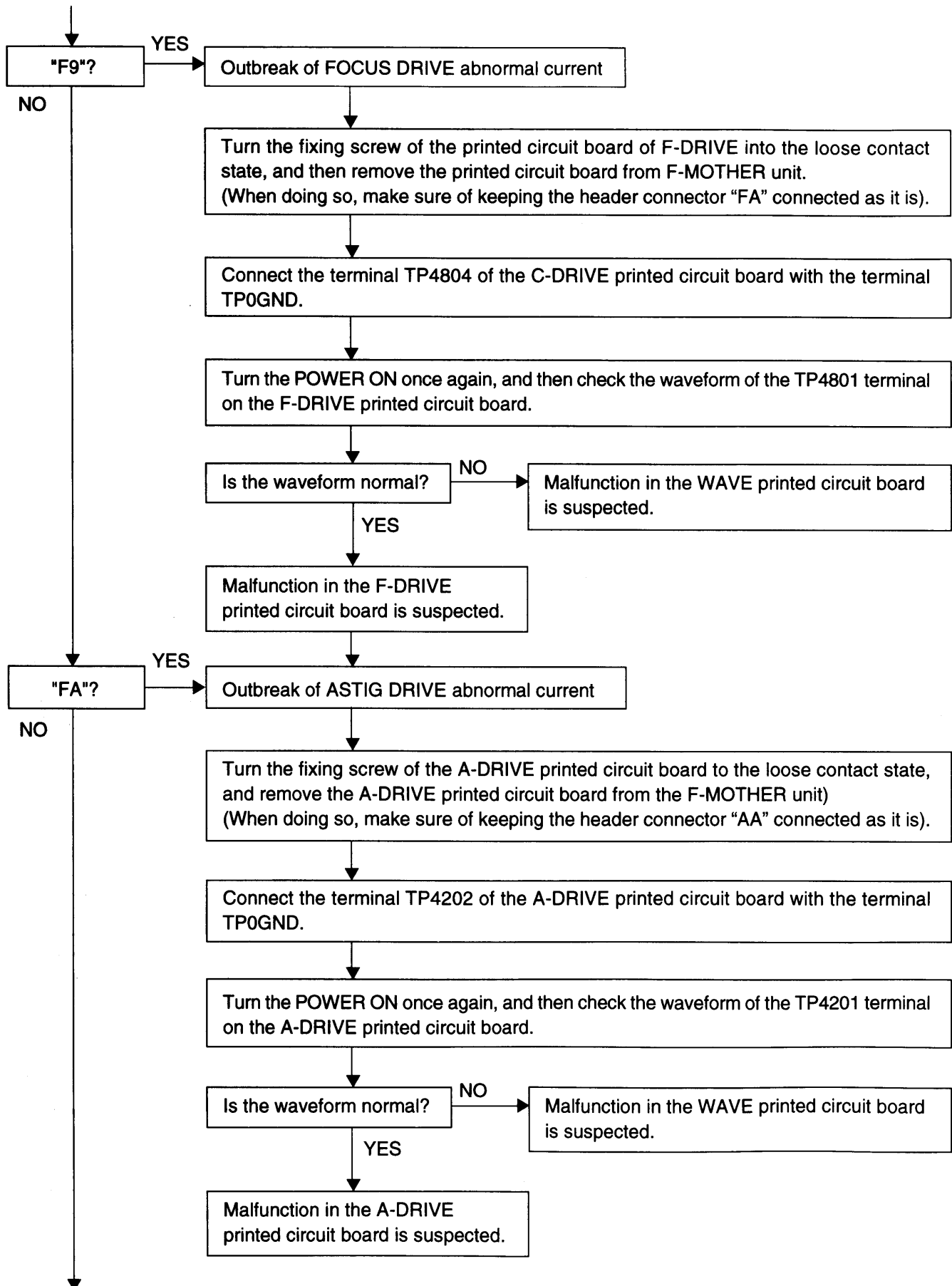
NO

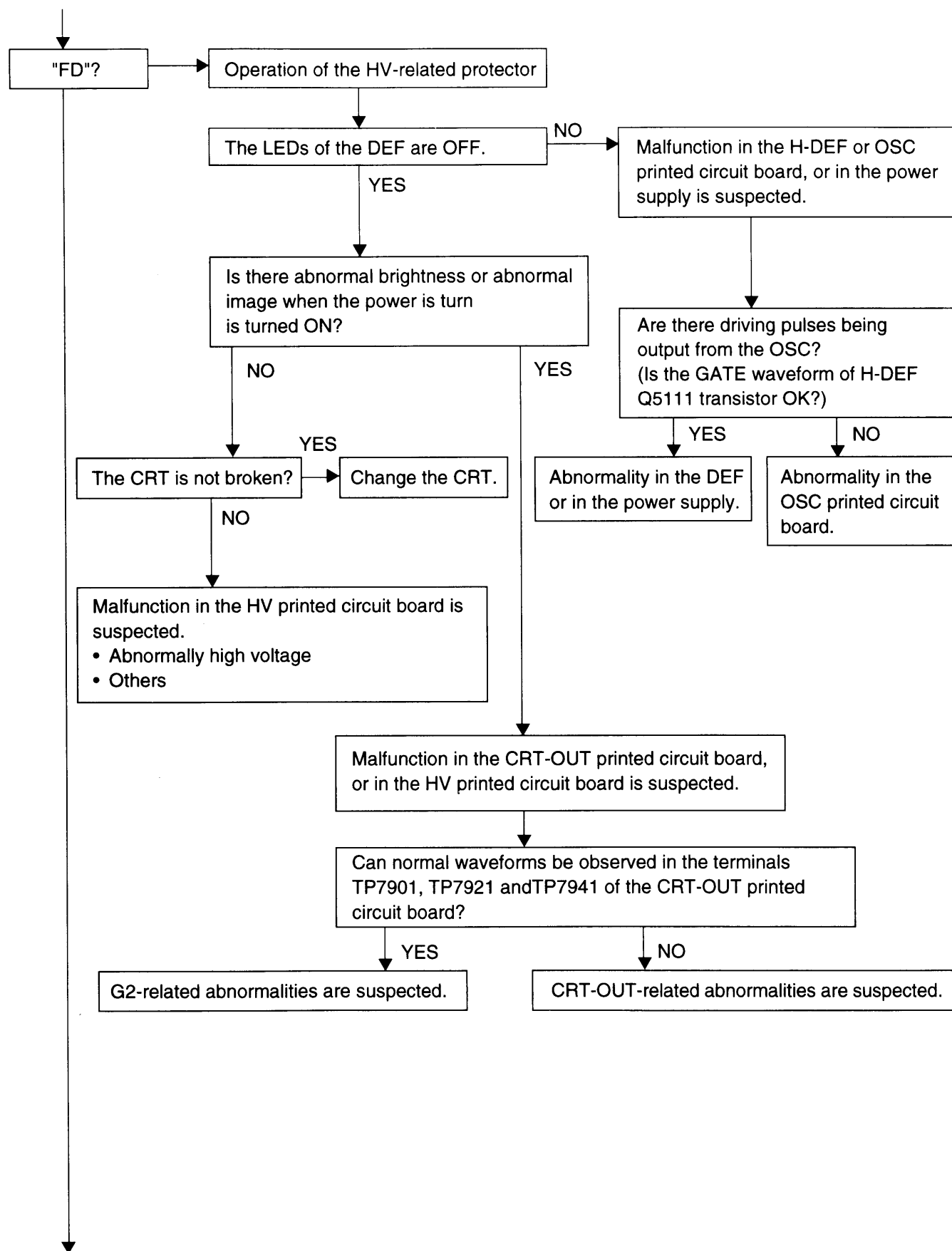
Malfunction in the D-CONV printed circuit board is suspected.

Malfunction in the WAVE printed circuit board is suspected.

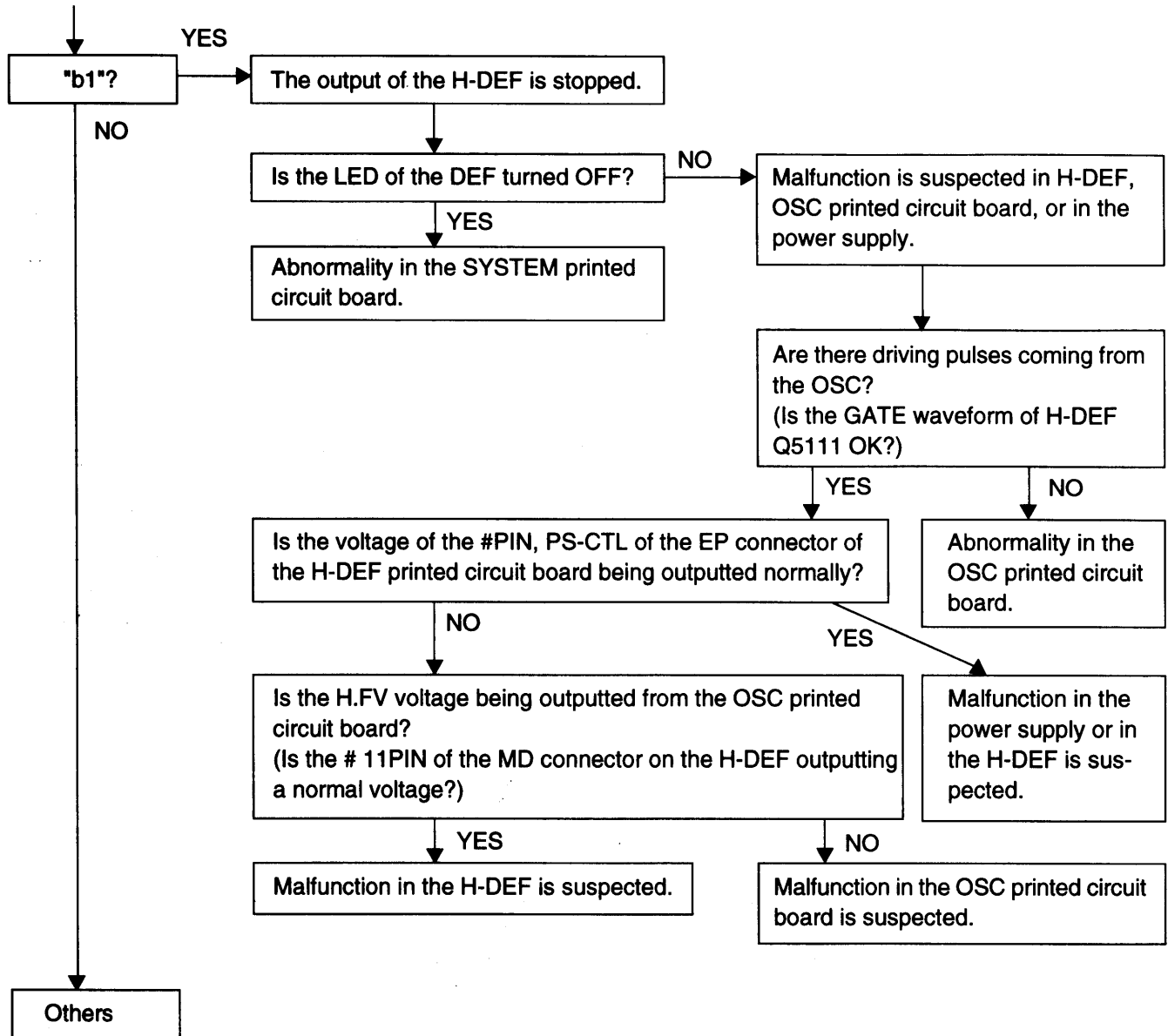
NO

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- "EO": This message is displayed, and the power is turned OFF when the FAN stops. Check whether the FAN is stopped or not.
- "AO": The protector of the power supply is being actuated. Either the power supply is presenting malfunction, or the protector of the power supply is being actuated, because of a malfunction in other printed circuit boards.

Other failure codes

The PJ of this XG series have many other failure codes. Refer to the failure code list of the attached sheet, and take the applicable countermeasures according to the symptom of each case.
Attached sheet (Failure code list)

4. Other symptoms and applicable countermeasures

STAND ALONE

Symptom	Points to be checked	Comments
No image is displayed	Are the cables correctly connected? ① Check whether the correct signals are being entered. ② When the signal source is a notebook type personal computer, depending on the computer model the signal may not be outputted to outside even when it is being displayed on the display of the main unit.	
No image is displayed (Correct signals are being connected, but there is no image displayed on the screen)	Are the correct waveforms being displayed on the terminals TP7011, TP7012 and TP7013 on the GAIN CTL printed circuit board? YES: Malfunction in the CRT OUT printed circuit board. NO: ① If normal waveforms are generated when RGB is selected and abnormal waveforms are generated when VIDEO is selected, that means that malfunction is occurring in the DAUGHTER printed circuit board, or abnormality is occurring in the SYSTEM printed circuit board. ② If no normal waveforms are generated in both cases, that means that malfunction is occurring in the GAIN CTL printed circuit board.	Besides the cases mentioned in the column to the left, abnormalities may be occurring in the INPUT printed circuit board (OPTION) or in the VIDEO MOTHER printed circuit board, etc., that compose the video signal system.
The image is not displayed when INPUT of XGRGBIN is selected. (OPTION slot).	① Is the rotary switch, located at the side of the equipment, correctly set? (Refer to the Instruction Manual for details). ② Is the JUMPER SW correctly set? (Refer to the Instruction Manual for details).	Besides the cases mentioned in the column to the left, abnormalities may be occurring in the SYSTEM printed circuit board.
The convergence correction function does not work correctly. No convergence is attained.	① Is the CONV PHASE correctly adjusted? ② Are the projection distance and other details related to the setting of the equipment correctly adjusted? ③ Are you sure that the SETTING mode adjustment has been properly changed in conformity with the setting conditions of the equipment?	A problem that occurs frequently are the abnormalities in the setting.
The convergence is mismatched.	Are you sure that the signal registration and the convergence adjustment have been carried out? It is necessary to carry out signal registration and convergence adjustment when the personal computer has been changed, or the convergence has been adjusted.	
There is no focusing	① If the lens can not be focused, try a fine adjustment in the lens mounting screws. ② If the electric focusing function does not work, try a fine adjustment of the ASTIG function by watching the displayed image. ③ Isn't there any adjustment error in the CPC?	When the RASTER POSITION is moved, a readjustment becomes necessary in the CPC of the #6 and #4 poles.
The WHITE BALANCE function does not work properly.	① Automatic re-compensation is carried out when AKB is turned ON once. (Push the KELVIN KEY).	In some cases, the possibility of malfunction in the CRT can not be discarded.
The colors are different at the right and left sides of the screen.	① In some cases, there is possibility of improper adjustment in the WHITE uniformity. Try a readjustment.	The screen itself may be defective.
The DATA STORE function does not work.	① Check whether the signal you are trying to adjust at the present time is registered. If not, make sure of registering it. (Refer to the Instruction Manual)	The signal can be registered in the TEMP mode.

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WITH ISS-6020

Symptom	Points to be checked	Comments
Power of ISS-6020 is not interlocked with power of the projector.	<ul style="list-style-type: none">① Is the cable interconnecting the projector with ISS-6020 correctly connected?② Are you sure that the AC power of the ISS-6020 is ON?③ Is the SETTING MODE - CONNECT CONDITION of the projector correctly set? (Refer to the Instruction Manual)④ Is the ISS-6020 set in the interlocked mode with the projector? (Refer to the Instruction Manual of the ISS-6020)	
No image is displayed on the screen.	<ul style="list-style-type: none">① Are you sure that the various cables are correctly connected?② Make sure that the correct signals are being entered.③ When the signal source is a notebook type personal computer, depending on the computer model the signal may not be output to outside even when it is being displayed on the display of the main unit.	

* The cases mentioned in the list above are only part of the different types of symptoms that may occur. If you find other kinds of symptoms, besides those ones mentioned above, please get in touch with the servicing personnel of NEC, and make sure of taking the appropriate countermeasures.

7 Seg' display codes	Display conditions
A0:	When POWER is ON during execution of AUTO SEQUENCER.
A1:	When protector circuit works in the power unit.
b0:	When connector of the vertical deflection circuit is disconnected.
b1:	When horizontal deflection stops.
b2:	When vertical deflection stops.
b3:	When horizontal/vertical deflection stops.
b9-bF:	When AKB-circuit operation is abnormal (Bit 0:R, Bit 1:G, Bit 2:B, Bit 3=1).
CO-CF:	Communication error (Shown below).
E0:	When the fan stops in the main body (abnormal).
E1-Ed:	(SYSTEM PWB error).
EE:	Initialization of adjusting data memory (SYSTEM PWB error).
EF:	EEROM read error (SYSTEM PWB error).
F0:	H-FREQUENCY LIMIT OVER (Horizontal frequency of input signal has exceeded the upper limit of input-enabled range).
F2:	VIDEO decoder circuit error.
F4:	Signal registration error (SYSTEM PWB error).
F5:	Task start request error, signal changeover command error, and SYSTEM PWB error.
F8:	When overcurrent detector circuit operates in C-DRIVE PWB (Error in C-DRIVE PWB/ D-CONV PWB, WAVE PWB).
F9:	When overcurrent detector circuit operates in F-DRIVE PWB (Error in F-DRIVE PWB/ WAVE PWB).
FA:	When overcurrent detector circuit operates in A-DRIVE PWB (Error in A-DRIVE PWB/ WAVE PWB)
Fb:	Input error for the number of V lines (SYSTEM PWB error).
FC:	+15V source OFF.
Fd:	When protector circuit operates for the HV circuit.
FF:	LCA write error (SYSTEM PWB error).
PP:	For version up-grading of application software.
AP:	When AC power supply is ON for AUTO POWER ON setting.

Communication-related errors:

C0:	D-Conv' transmission error (Error is generated when data are transmitted from SYSTEM PWB to D-Conv' PWB).
C1:	D-Conv' ACK reception error (Error during ACK reception or no ACK response).
C2:	D-Conv' Process End reception error (Error during Process End reception or no Process End).
C3:	D-Conv' communication command error.
C4:	OSC transmission error (Error is generated when data are transmitted from the SYSTEM PWB).
C5:	OSC reception error (Error is generated during reception).
C6:	Reservation (OSC error reservation)
C7:	Reservation (OSC error reservation)
C8:	Switcher transmission error (Error is generated when data are transmitted from SYSTEM PWB).
C9:	Switcher reception error (Error during ACK reception or no ACK response).
CA:	Communication protocol error (Parity error, framing error, etc.).
CB:	Reservation (Switcher error reservation).
CC:	PC Control transmission error (Error is generated when data are transmitted from SYSTEM PWB).
Cd:	PC Control reception error (Error during ACK reception or no ACK response).
CE:	Communication protocol error (Parity error, framing error, etc.).
CF:	Reservation (PC Control error reservation).