

Electrical Troubleshooting Guide CP-50S

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* General checkpoints

1. Check the voltage between connector terminals (e.g., is there AC100V between connectors J4(1) and (3)?) In this case, all measurements must be done under a full load condition. (Load = motor, microswitch etc.) This is done to find faulty connector contacts more precisely.
2. If a faulty connector contact is suspected, gently pull on its wires once.

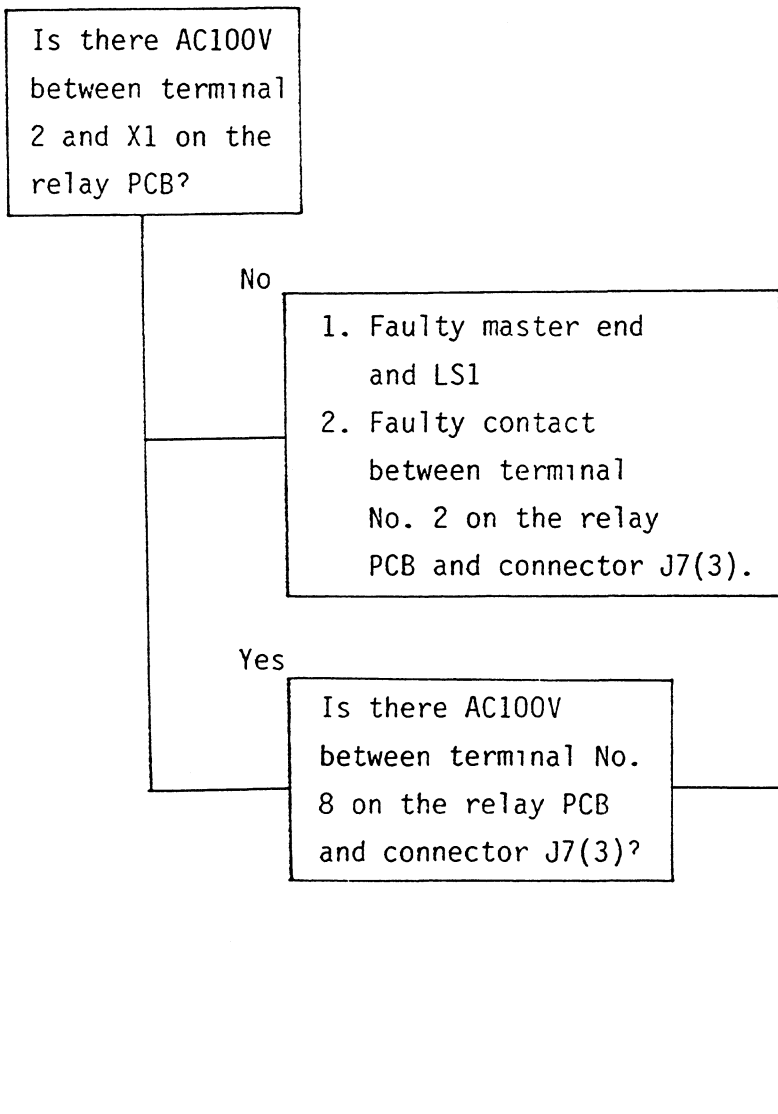
1) Starts OK, but pilot lamp (PL) does not light.

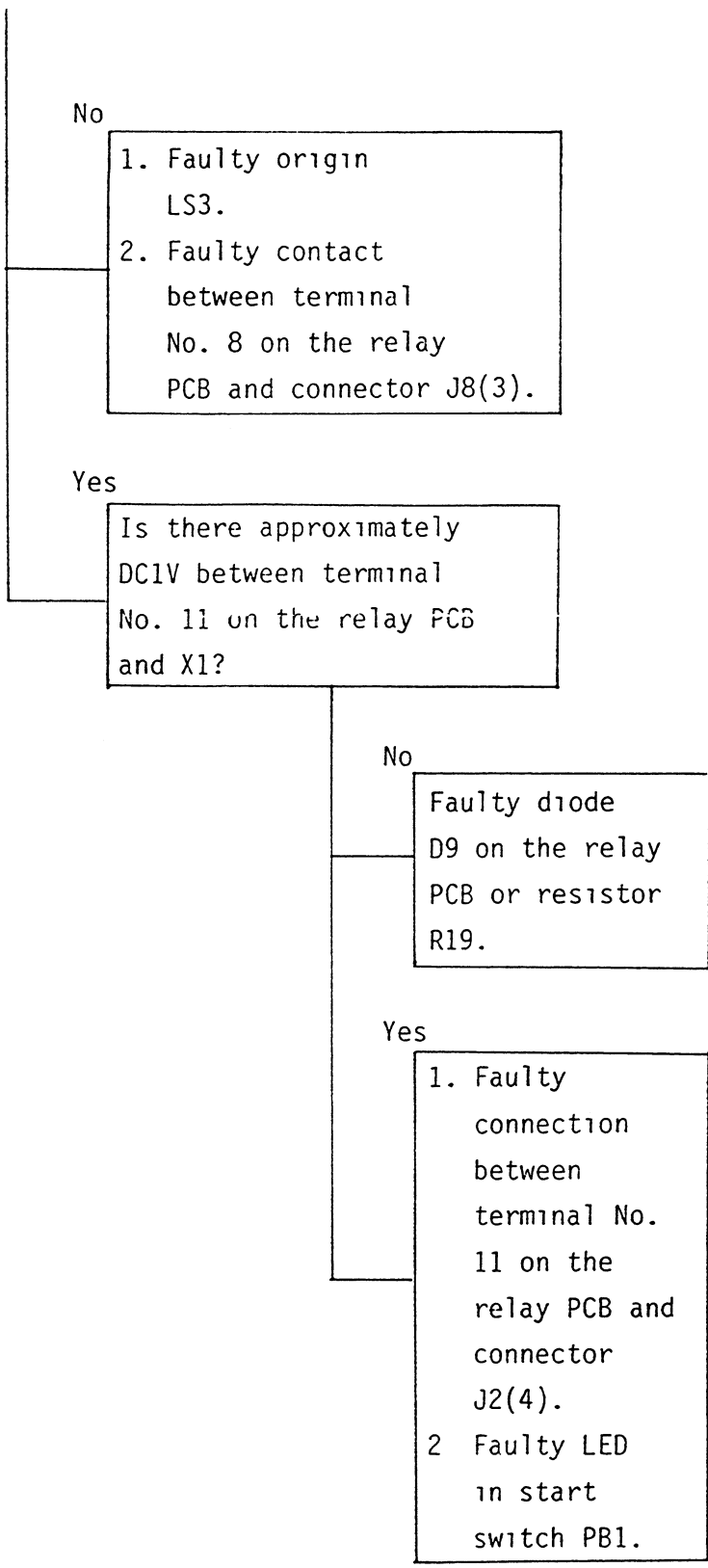
Items to be confirmed: (1) Is the power source connected?

(2) Are the no fuse breakers on?

(3) Have the F1, F2 5A fuses blown?

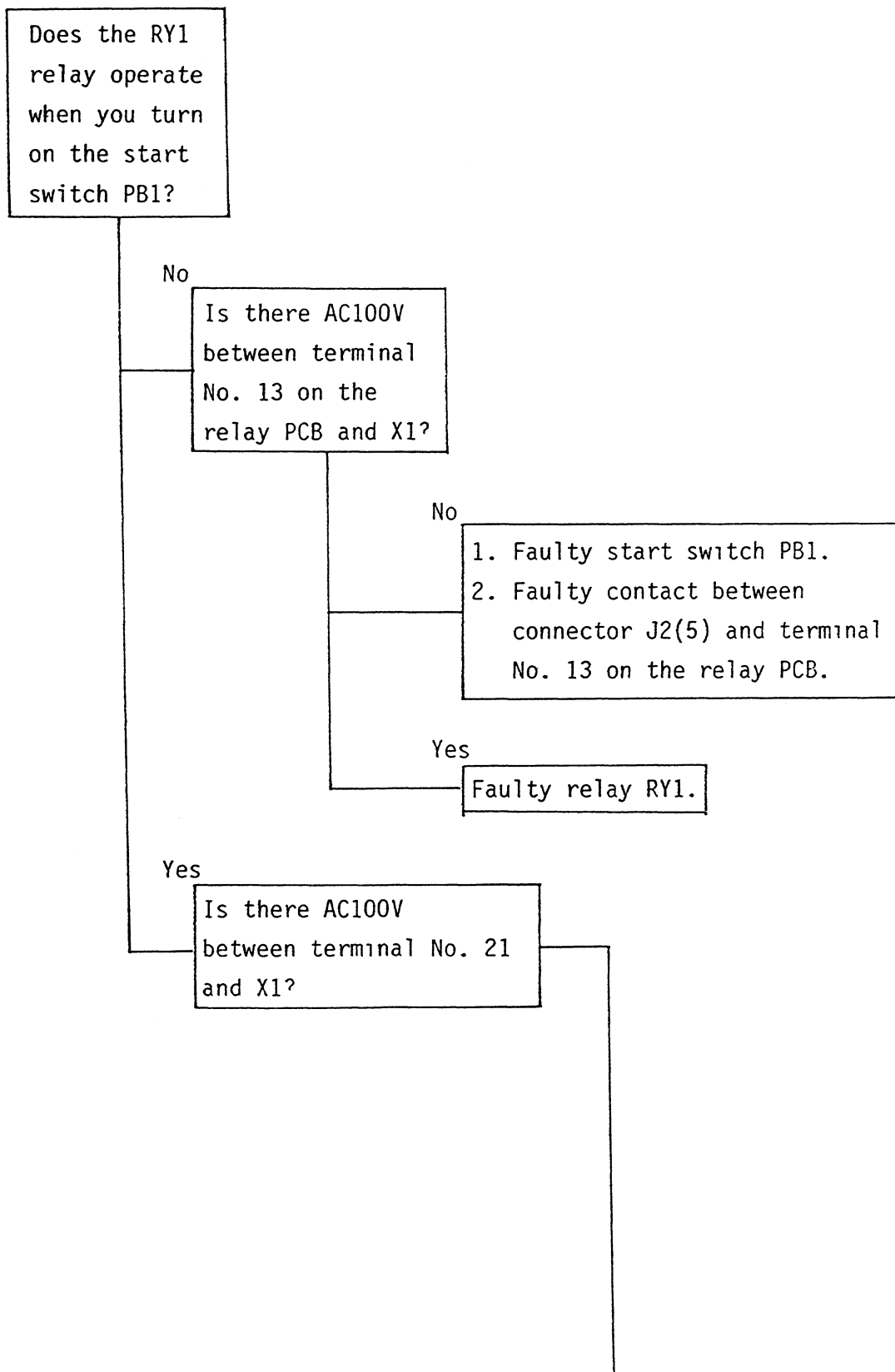
(4) Is it at master end (end PL lit)?





2) Does not start.

- Items to be confirmed:
1. Is the power source connected?
 2. Is the Start OK PL lit?



No

1. Faulty limit switch LS4 or LS5.
2. Faulty contact between terminal no. 17 on the relay PCB and J11.
3. Faulty contact between J11(3) and J12.
4. Faulty contact between J12(3) and terminal No. 21.

Yes

1. Faulty motor RM2.
2. Faulty contact between terminal No. 21 and connector J15(1).
3. Faulty contact between terminal No. X1 and J15(3).
4. Faulty contact between condenser CM3 and terminal No. 21 or 22.

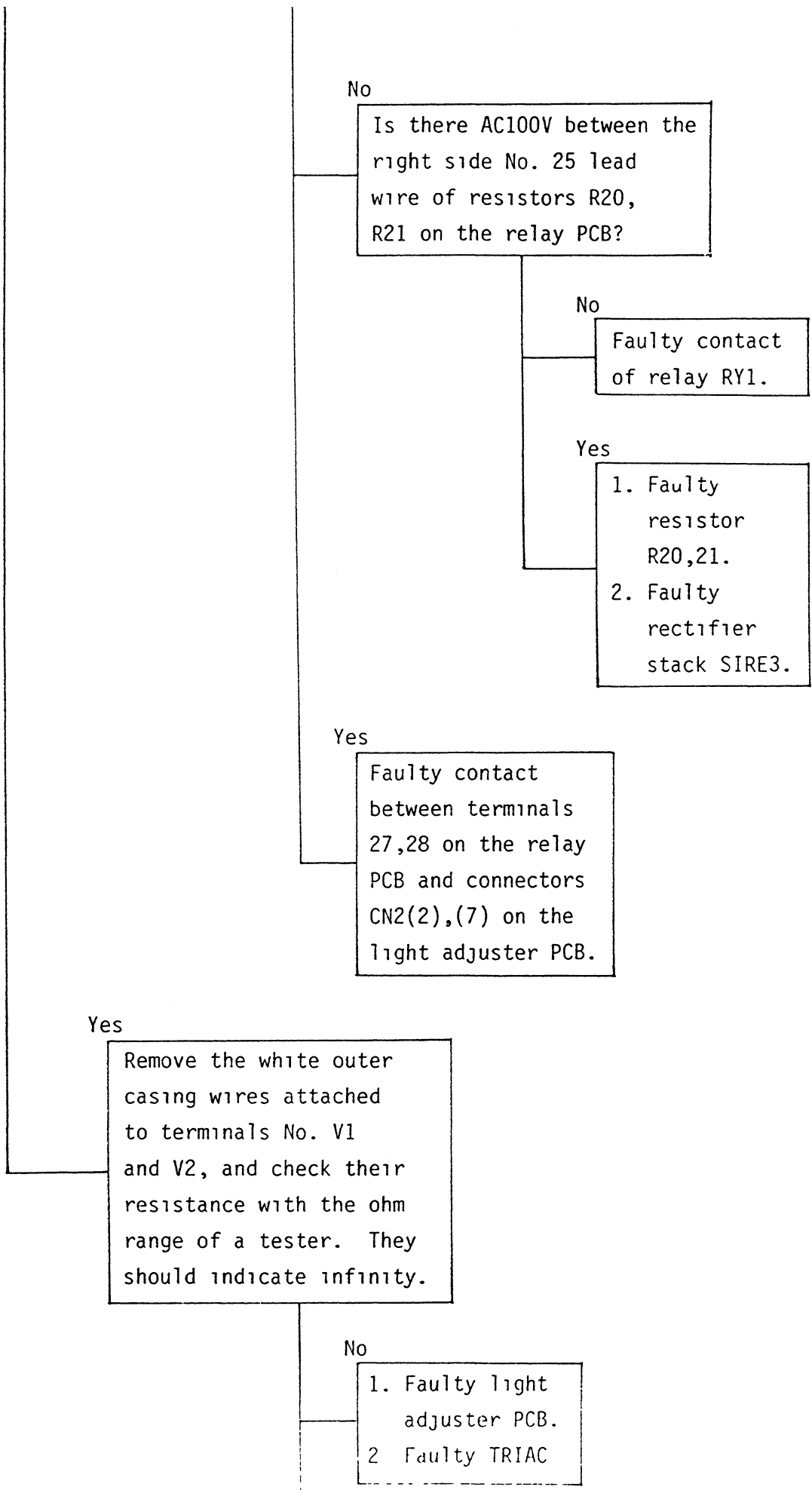
3) Exposure lamp does not light.

Items to be confirmed: (1) Have the F5,F6 10A fuses blown?

Is the relay RY4
(the larger one)
on the light adjuster
PCB functioning?

No

Is there DC24V
between terminals
27-28 on the relay
PCB?



No

Is there AC100V between the right side No. 25 lead wire of resistors R20, R21 on the relay PCB?

No

Faulty contact of relay RY1.

Yes

- 1. Faulty resistor R20,21.
- 2. Faulty rectifier stack SIRE3.

Yes

Faulty contact between terminals 27,28 on the relay PCB and connectors CN2(2),(7) on the light adjuster PCB.

Yes

Remove the white outer casing wires attached to terminals No. V1 and V2, and check their resistance with the ohm range of a tester. They should indicate infinity.

No

- 1. Faulty light adjuster PCB.
- 2. Faulty TRIAC

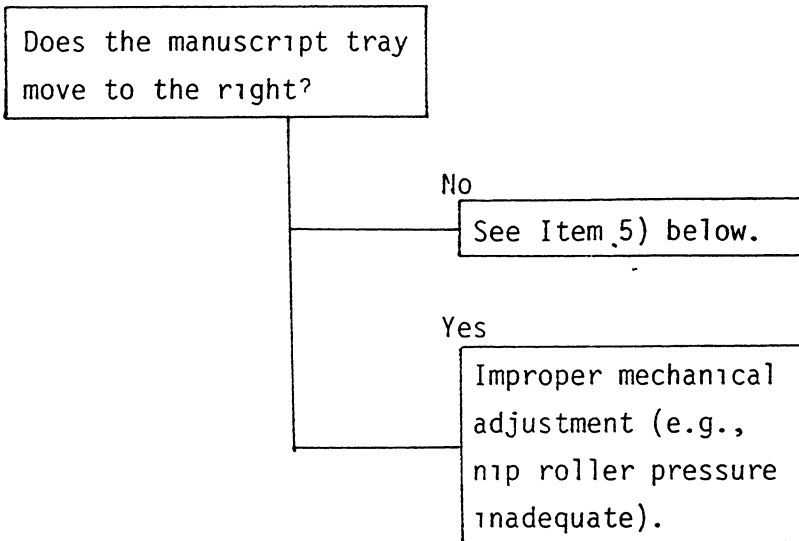
Yes

Malfunction caused
by broken main
light source wire.

4) Will not send master.

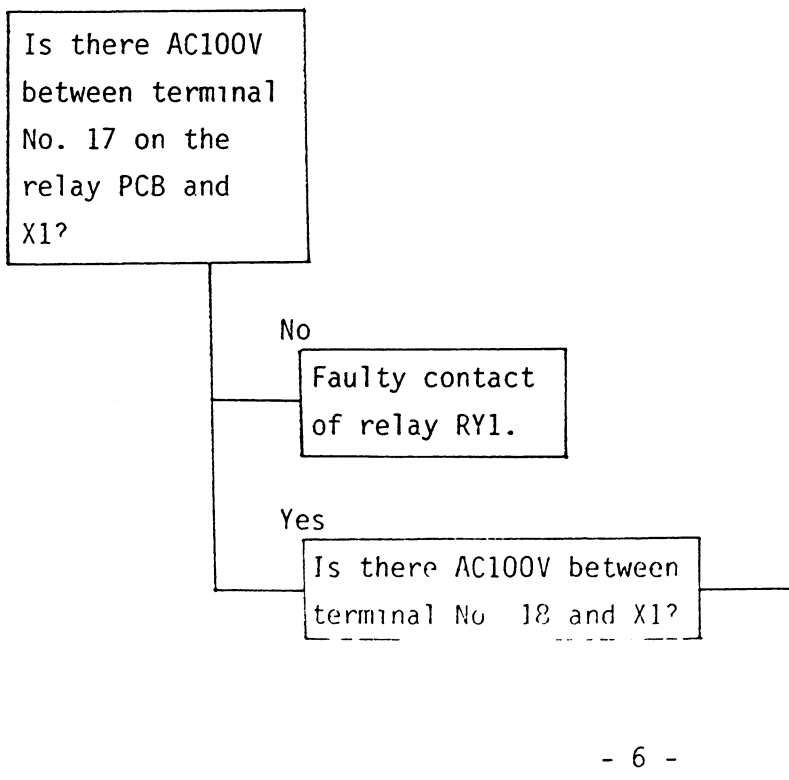
Note: Master sending motor also serves to move the manuscript tray.

Items to be confirmed: Is the Start OK PL lit?



5) Manuscript tray does not move

A) Will not move to the left when photographing.



No

1. Faulty contact between terminal No. 17 on the relay PCB and J11(7).
2. Faulty contact between J11(3) and terminal No. 18.
3. Malfunction in limit switch LS4.

Yes

Is there AC100V between terminal No. 21 and X1?

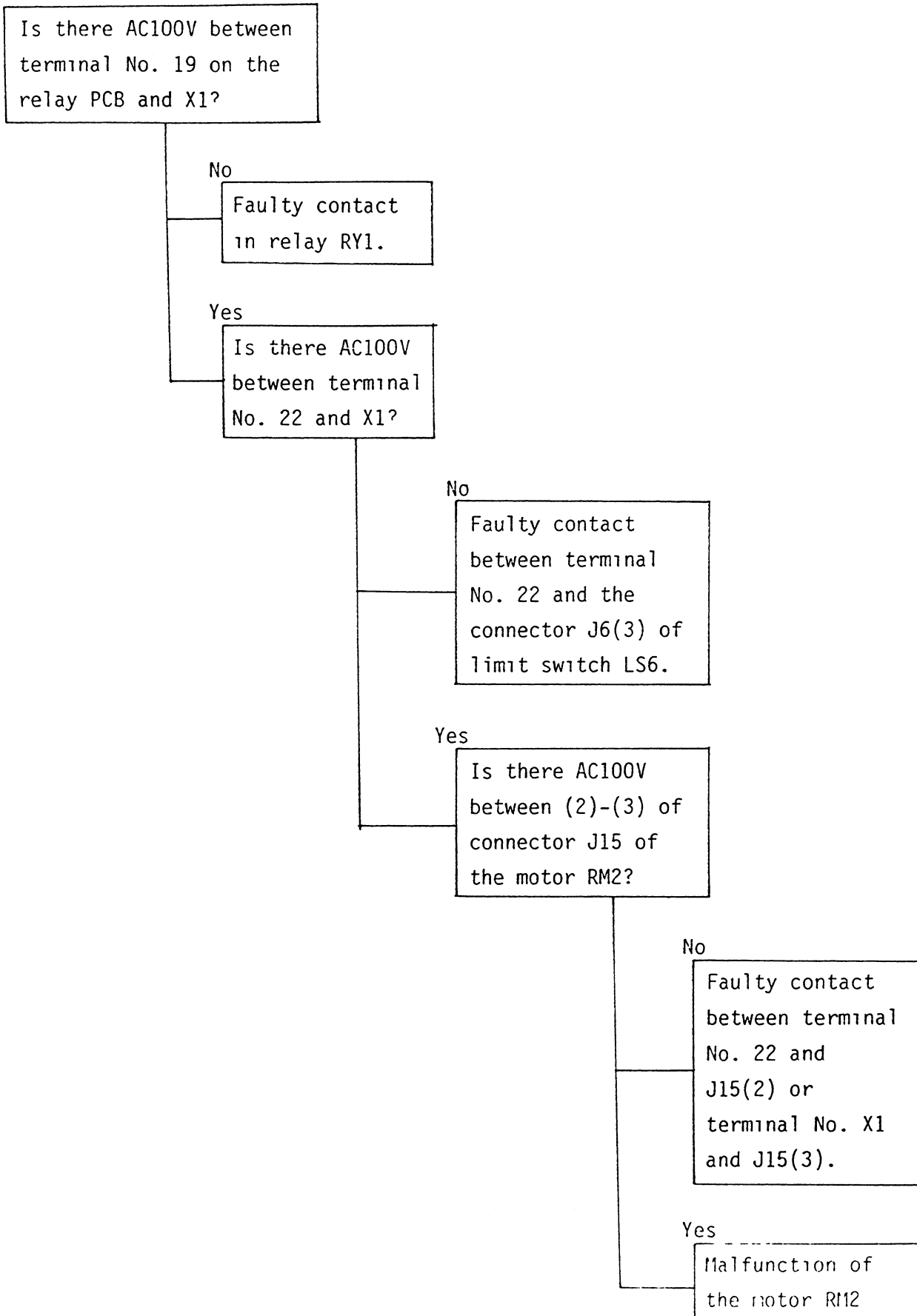
No

1. Faulty contact between terminal No. 18 and J12.
2. Faulty contact between J12(3) and terminal No. 23.
3. Malfunction of limit switch LS5.

Yes

1. Malfunction of motor RM2.
2. Faulty contact between terminal No. 21 and J15 (1) or terminal No. X7 and J15(3).
3. Faulty contact between No 21,22 condenser CM3 and terminal No 21,22

B) Will not move to the starting point (right) after photographing.

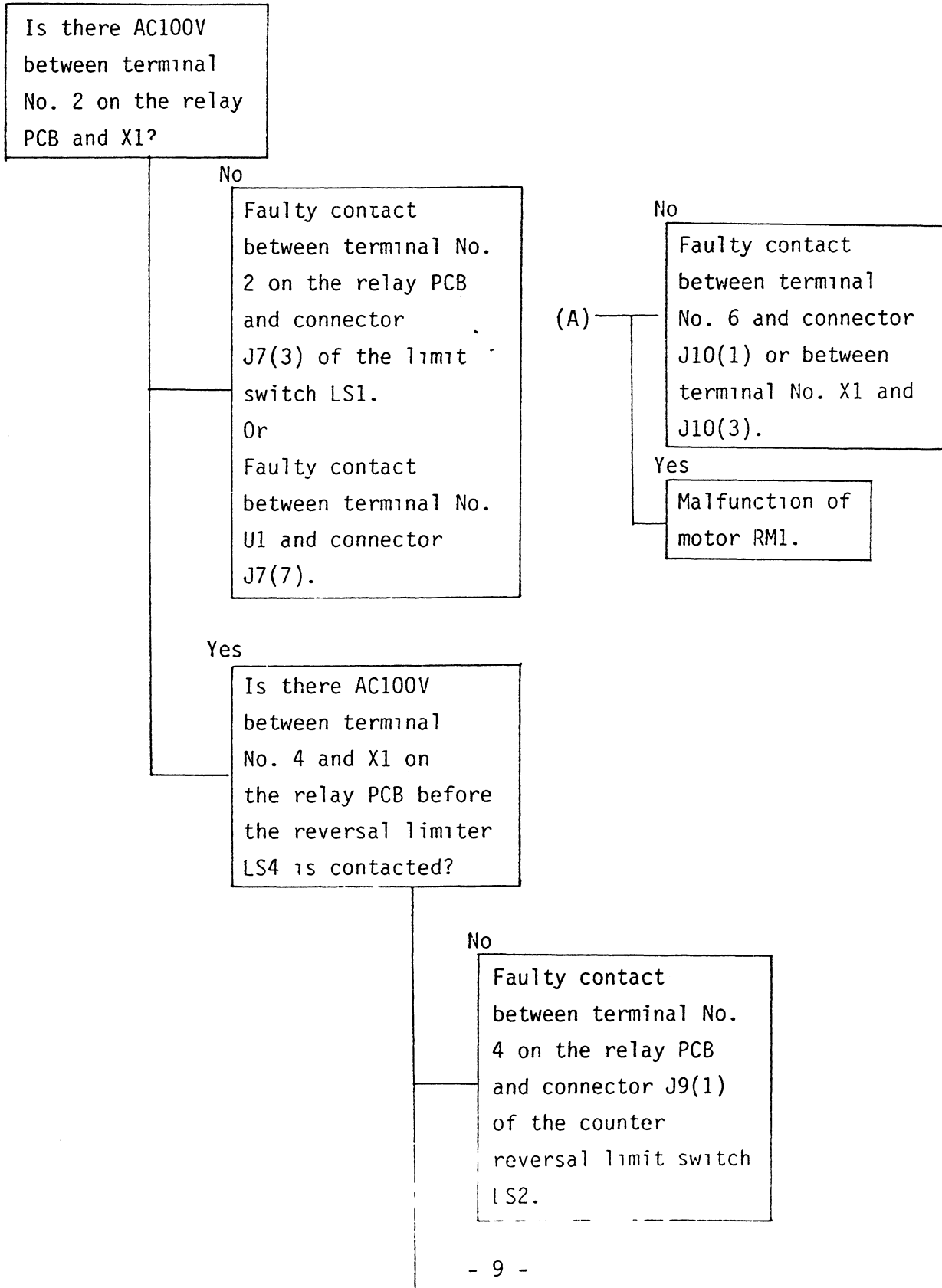


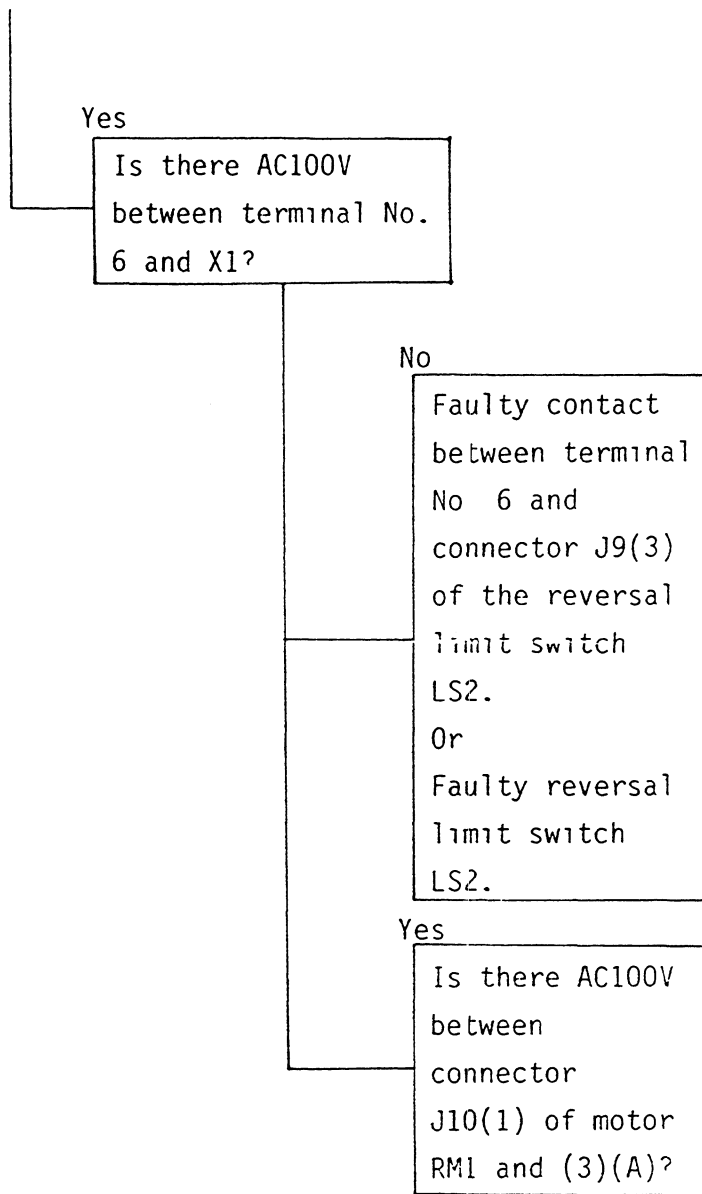
6) Master cutter does not operate.

A) Does not move in master cutter direction.

Note: Cutting will not occur at master end.

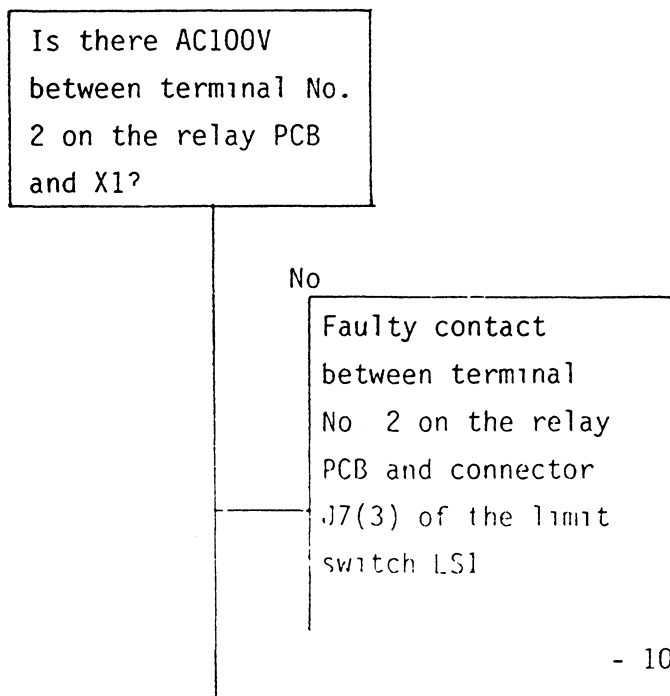
Items to be confirmed: Make sure there is no undue mechanical force applied to the cutter mechanism.





B) Will not return to cutter origin point.

Items to be confirmed: Make sure there is no undue mechanical force applied to the cutter mechanism



Or
Faulty contact
between terminal
No. U1 and connector
J7(1).

Yes

Is there AC100V
between terminal No.
5 on the relay PCB
and terminal No. X1?

No

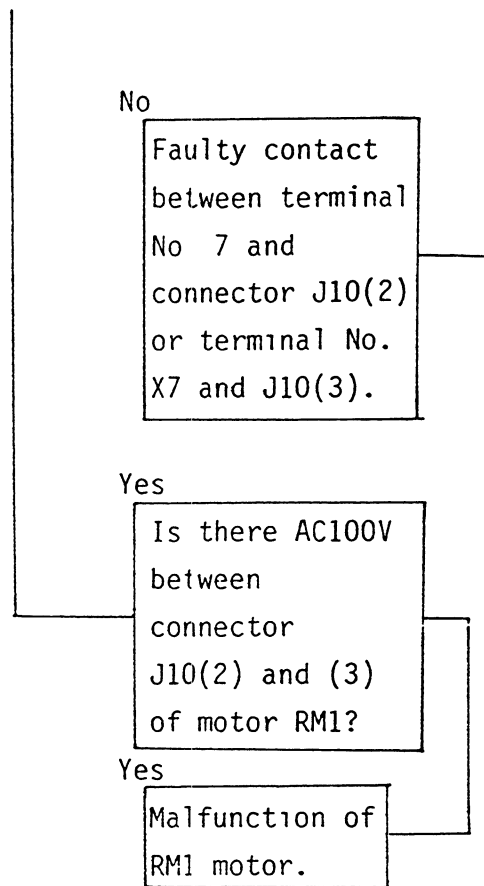
Faulty contact in
relay RY2.

Yes

Is there AC100V
between terminal No.
7 and X1?

No

Faulty contact
between terminal
no. 7 and
connector J8(2)
of origin point
limit switch
LS3.
Or
Malfunction of
origin point
limit switch
LS3.

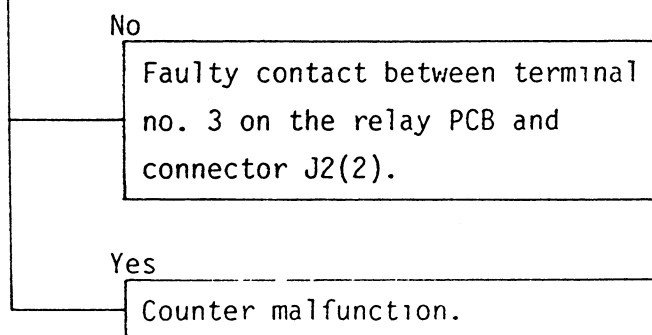


7) Counter does not operate.

When exposure ends and the cutter functions, the counter begins counting (stopping between numbers). When the cutting ends, counting ends (adding one whole number).

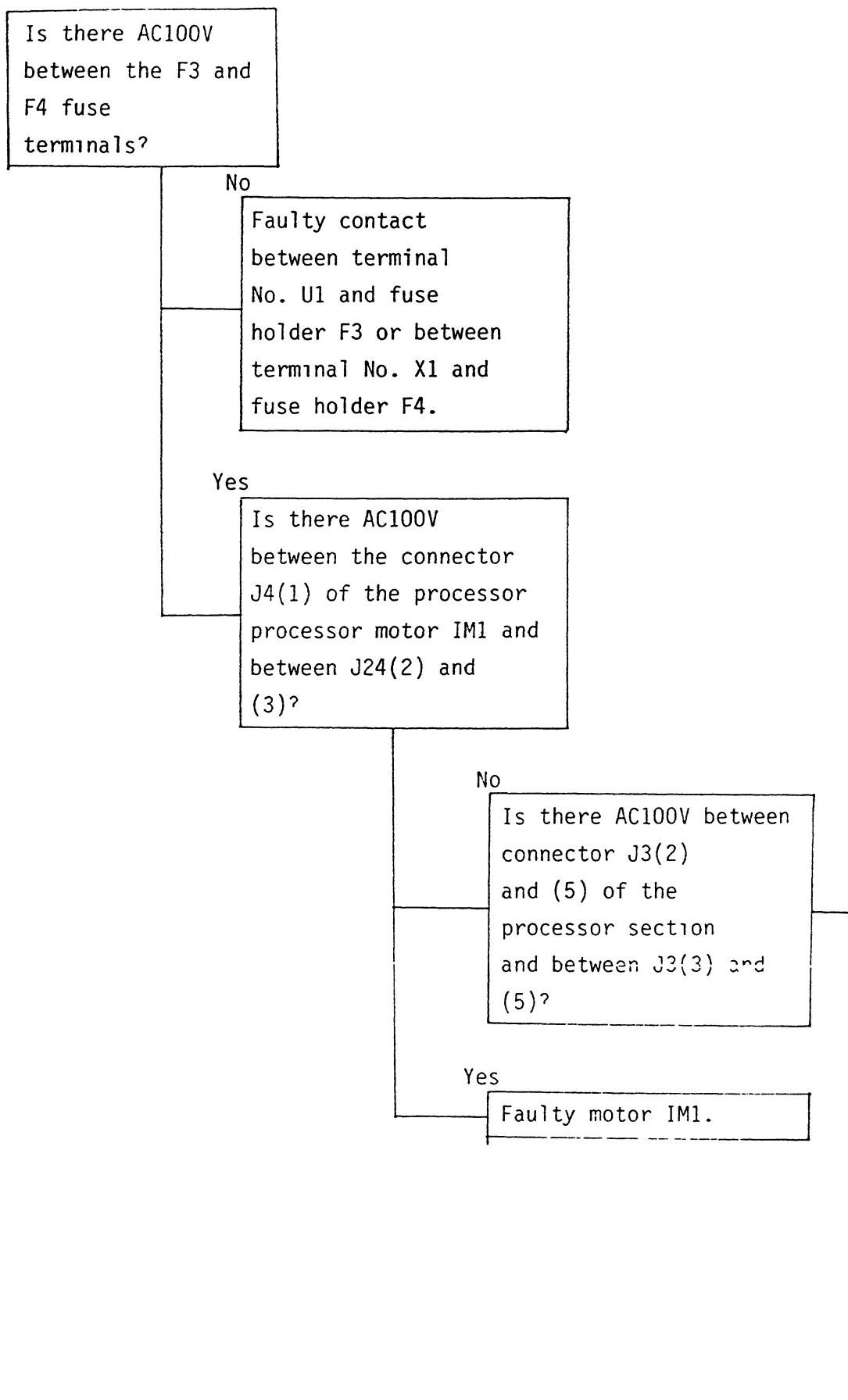
Items to be confirmed: Cutter functioning is normal.

Loosen the screws so that the inside of the control panel can be seen. Is there AC100V between (2) and (9) of connector J2?



8) Processor motor does not function.

Items to be confirmed: Have the F3,F4 1A fuses blown?



No

*Faulty contact between terminal No. U2 and connector J3(2) and between No. U3 and J3(3).

*Faulty contact between condenser CM1's No. U2 terminal and terminal No. U2, CM1's No. U3 terminal and terminal No. U3.

Yes

Faulty contact between connector J3(2) and J4(1), J3(3) and J4(2), J3(5) and J4(3).

9) Exhaust fan does not function.

Items to be confirmed: Have the F1,F2 5A fuses blown?

Is there AC100V between (1) and (3) of the exhaust fan connectors J13, J14?

No

Faulty contact between terminal No. U1 and (1) of connectors J13, J14 or between terminal no. X1 and (2) of connectors J13, J14.

Yes

Malfunction of exhaust fan FM1 or FM2.

10) Master end pilot lamp (PL) does not light.

Items to be confirmed: Is the actuator of the master end detector limit switch LS1 stuck?

Loosen the screws so that the inside of the control panel is visible. Is there AC100V in the conductive portion of the master end PL?

No

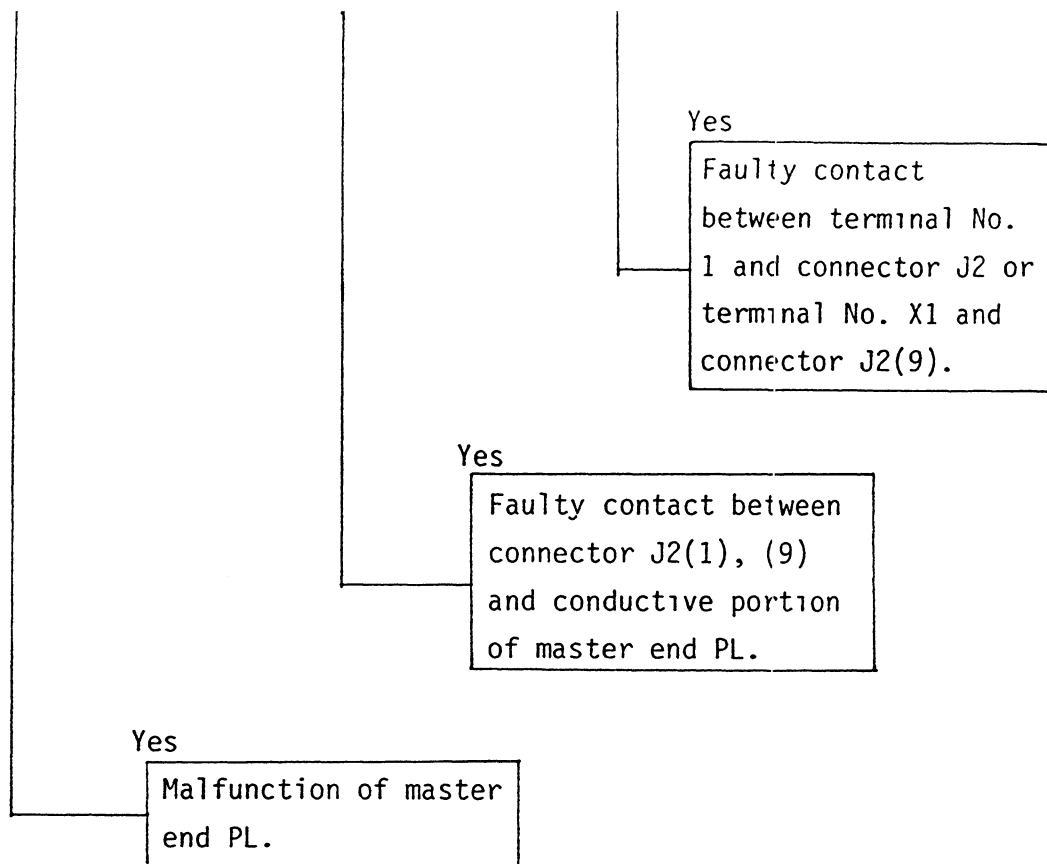
Is there AC100V between control panel connector J2(1) and (9)?

No

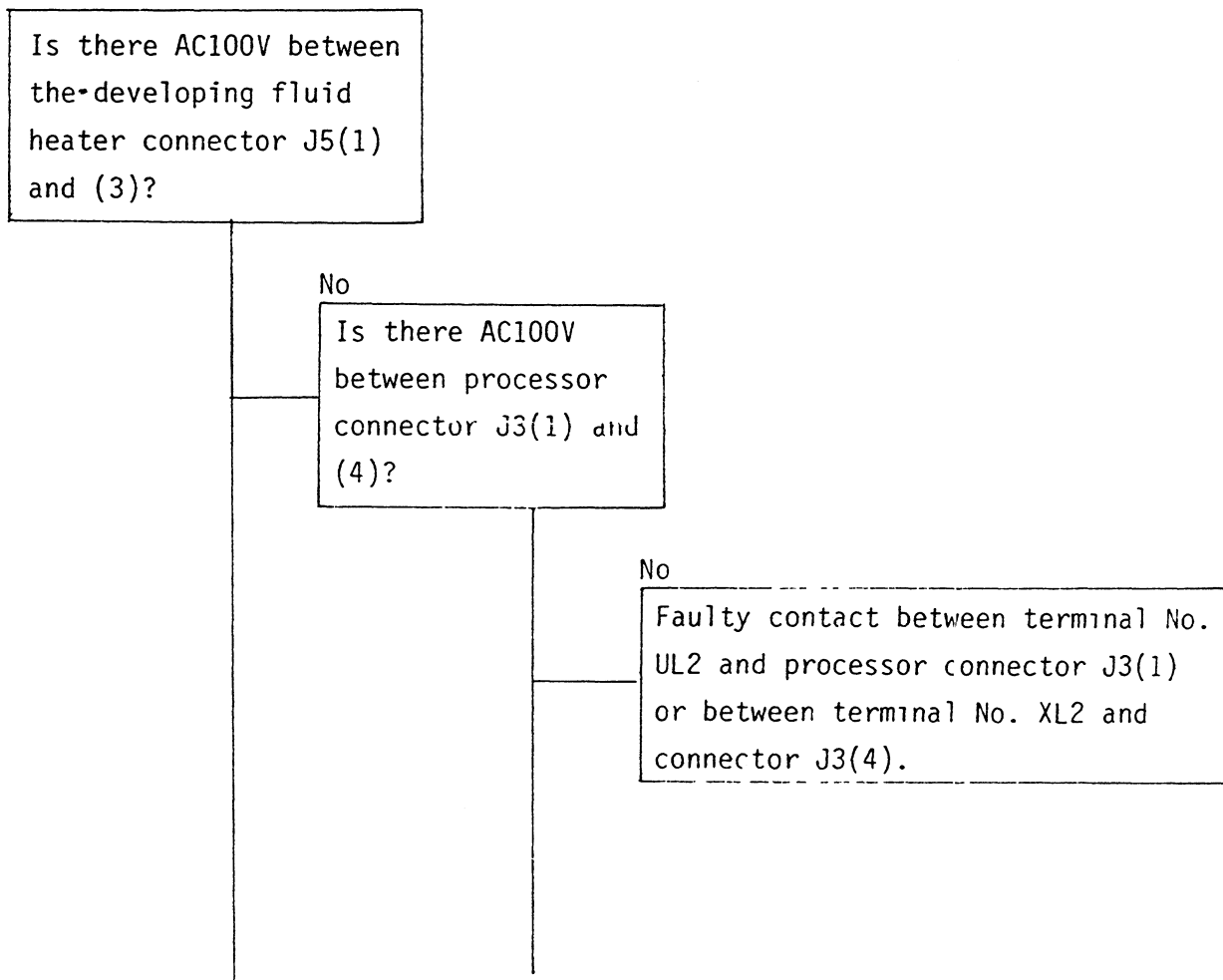
Is there AC100V between terminal No. 1 and X1?

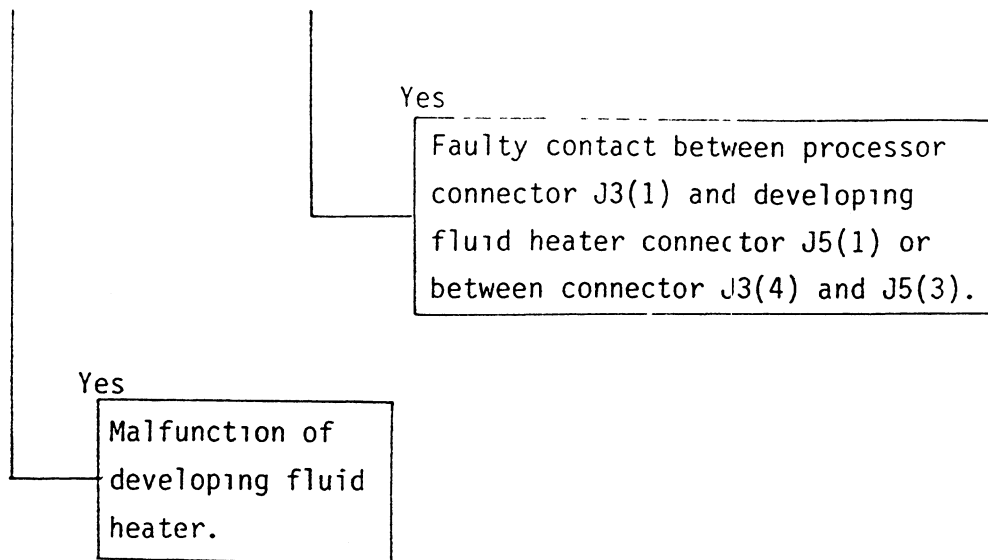
No

*Malfunction of master end detector limit switch LS1.
*Faulty contact between terminal No. 1 and connector J7(2) of LS1.

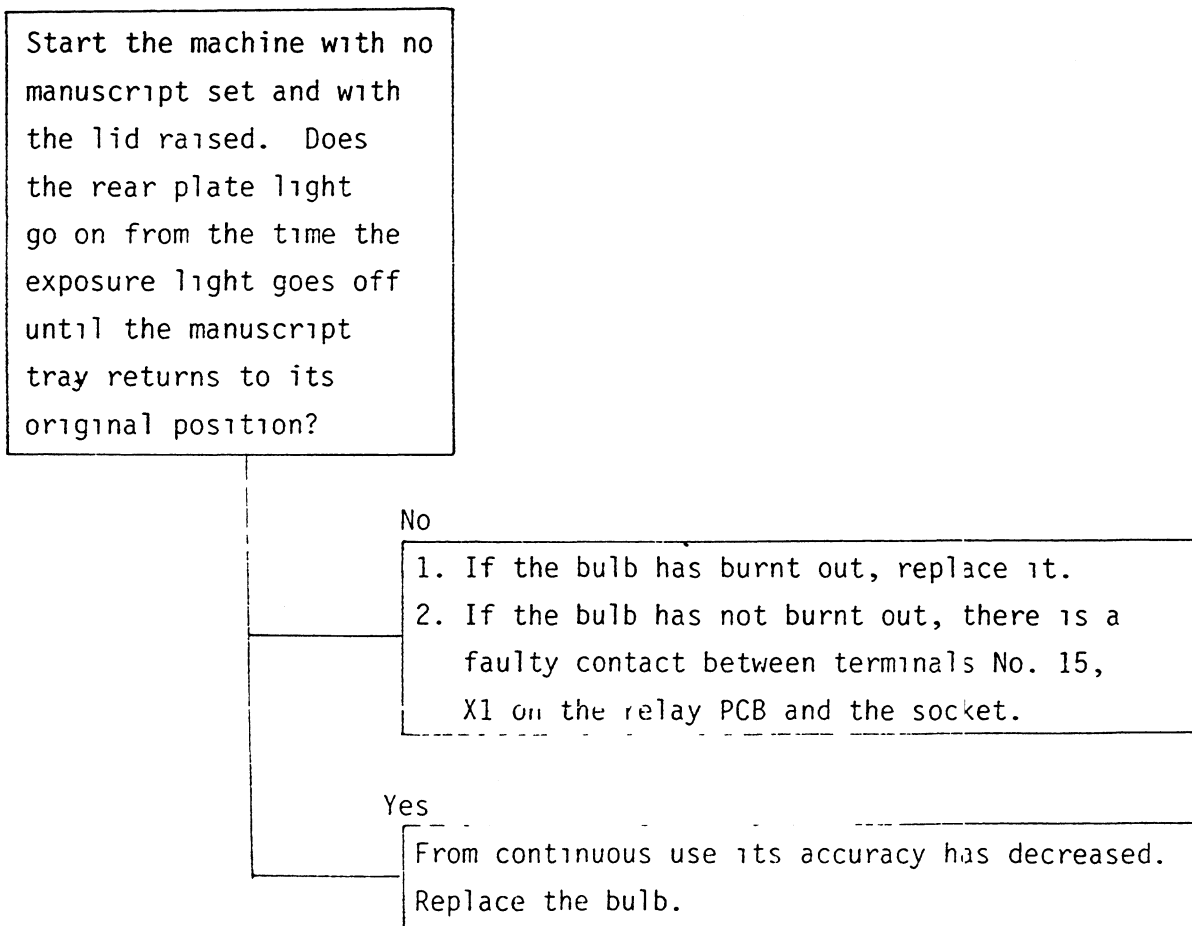


11) Developing fluid motor does not function (developing fluid temperature does not rise).





12) Rear plate light does not go on. Rear plate portion does not become solid black.



13) During use, NFB trips off.

If the NFB trips off during use, consider the following two possibilities:

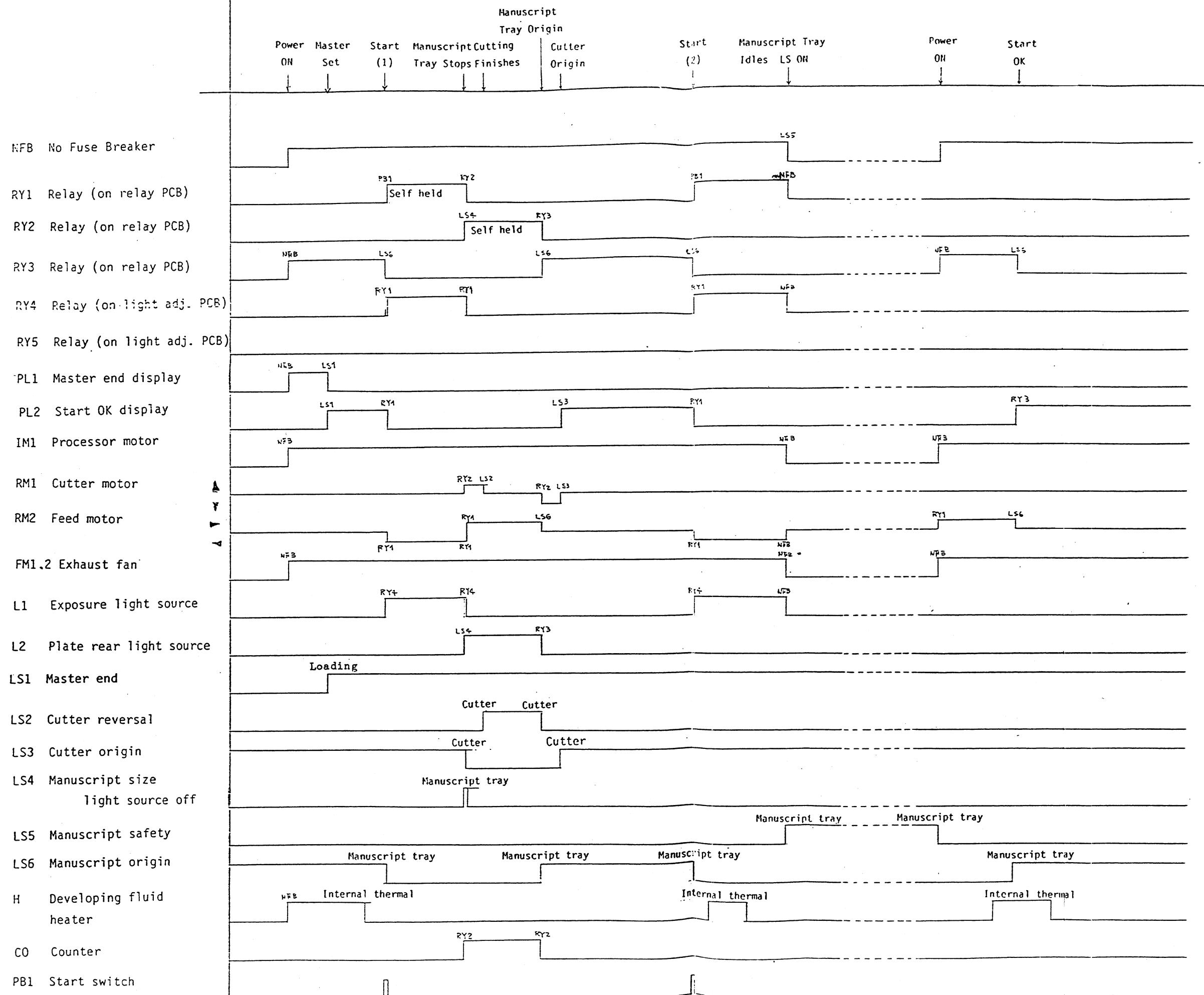
1. Due to a fault in the TRIAC (located near the light adjuster PCB) which turns the exposure light source on and off, the circuit which trips the NFB to protect against bulb damage is operating.

Repair: 1. Replace TRIAC.
2. Replace light adjuster PCB.

2. The circuit which trips the NFB as protection against damage to the manuscript tray glass due to heat caused by continuous lighting is working. (In this case, the manuscript tray will move its full length.)

Repair: 1. Due to damage or maladjustment of limit switch LS4 which shuts off the manuscript size setter and the light source, it will not move. Safety limit switch LS5 is thus actuated. Adjust limit switch LS4 or, if damaged, replace it.

Time Chart

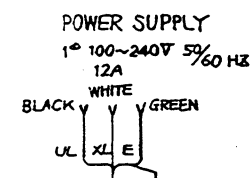
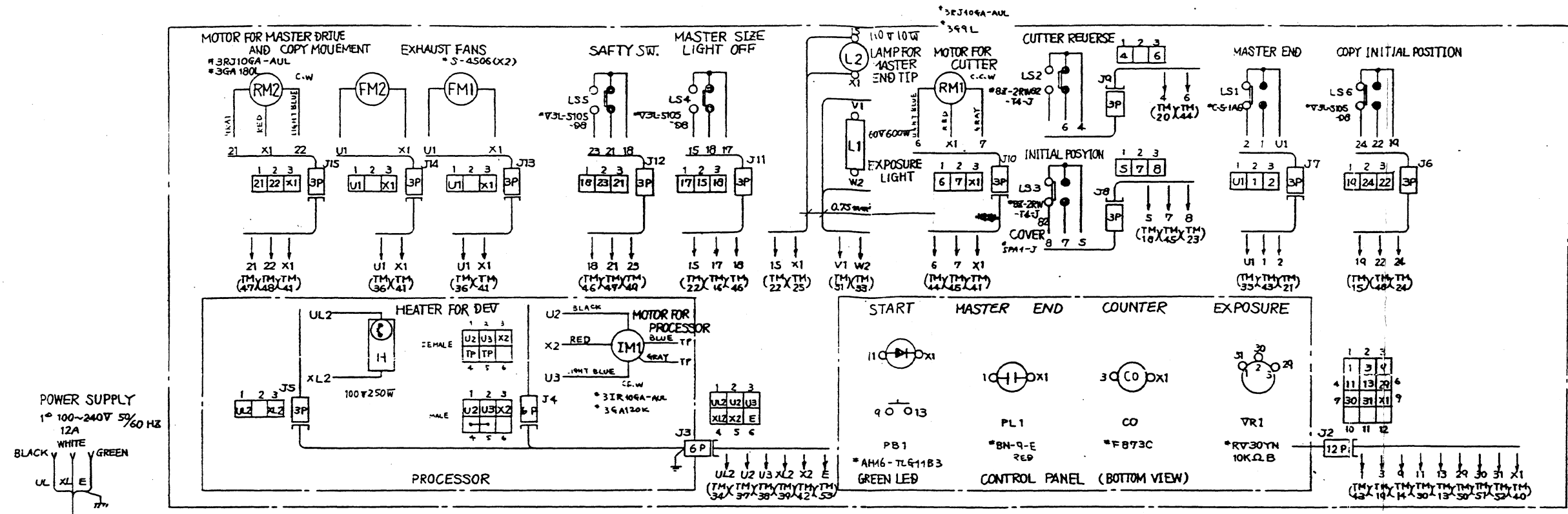


Start (1): Ordinary operation.

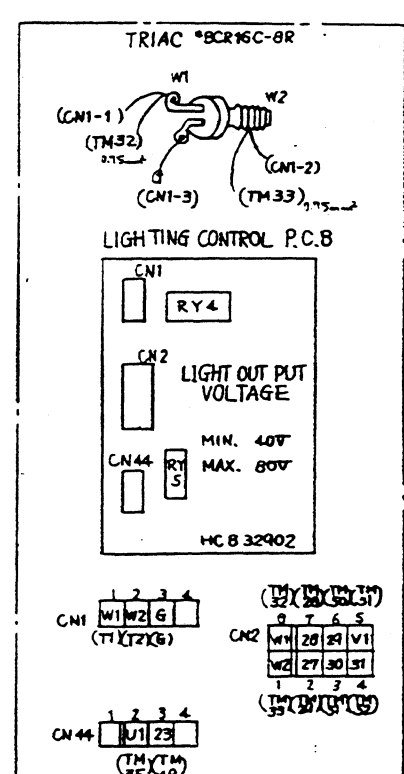
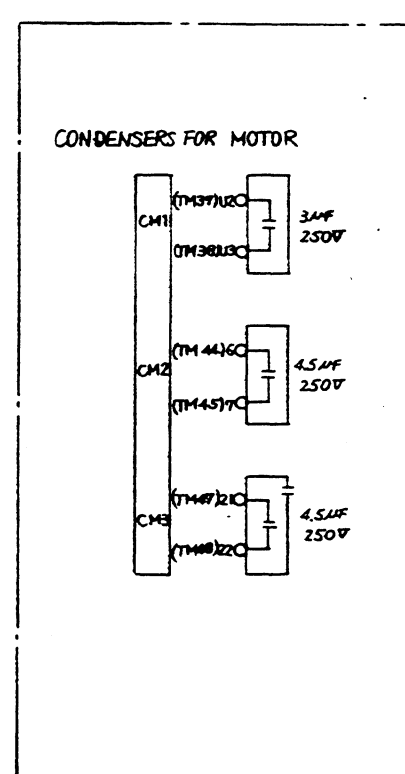
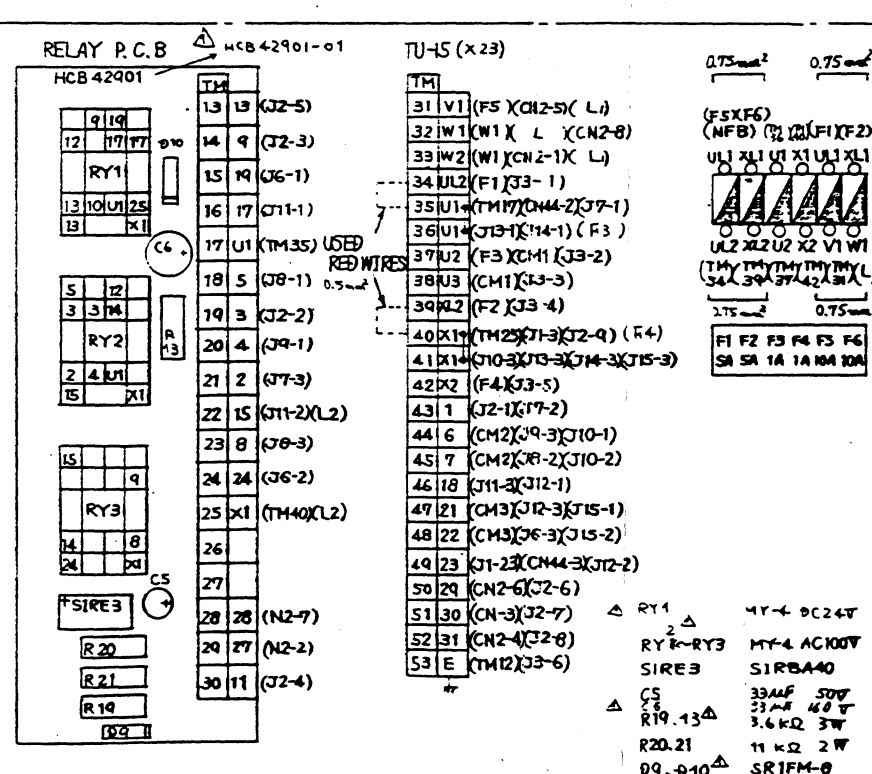
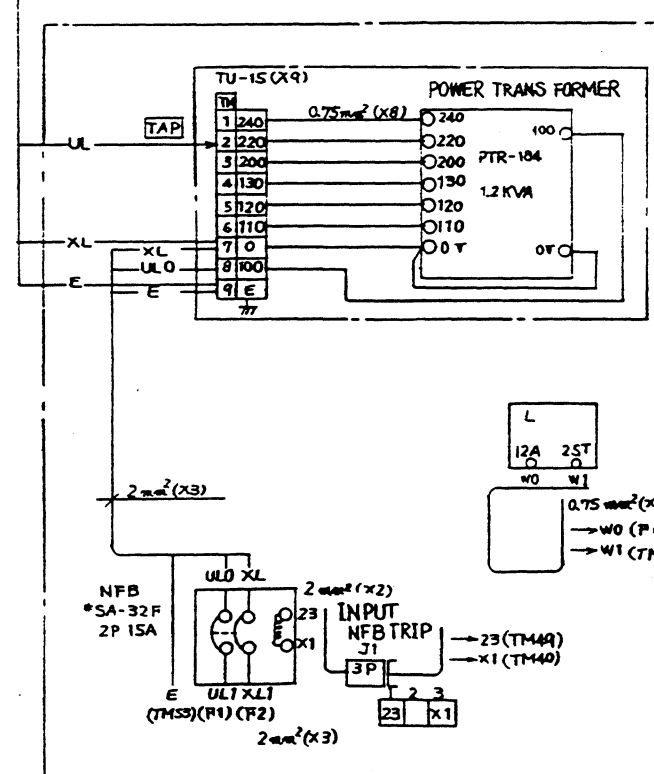
Start (2): When LS4 does not go ON, and safety LS5 goes on to trip NFB.

At Start (2), manuscript tray goes back to origin and Start OK lights up.

DWG. NO. 31364



2 mm² 3C (3M)



REFERENCE DIA.
 WIRING SYSTEM Ø1A. HCS31575

DESIGN		TITLE
DRAWING	<i>Y. Kimura</i>	
CHECKED		
APPROVED	Y. KIMURA	WIRING DIA
DATE	MAR 30 '83	
MODEL	CP-143-B4	DWG. NO. HCW 31364

SYM	REVISION	DATE	APPROVED
		83.9.12	HATTORI

パーツリストの発刊にあたり

本パーツリストは、修理部品やスペアパーツを間違いなく発注していただくために作成したものです。以下の点に注意し、有効な活用をお願いいたします。

1. 分解図はブロックに分けて個々の部品または組み合わせ（アセンブリー）部品がスケッチ図で示されています。
分解図から必要な部品または組み合わせ部品のINDEX Noを拾い上げてください。
2. 部品一覧表は全部品が分解図のINDEX No順に記載されています。
部品一覧表からPART CODEと部品名称（PART NAME）を拾い出します。
3. 部品をご注文いただくときは、必ずINDEX No, PART CODE, PART NAMEおよび発注個数を明示ください。

なお、機器は改良のためお断りなく変更する場合がありますので、ご注文に際しては機種名および製造番号もあわせてご連絡ください。

4. 個数欄には機器1台当りの数量を記載してありますが、単品と組み合わせ部品の両方を併記したものもあります。供給の単位によってPART CODEが異なりますので間違いのないようにしてください。

特に*印を付記したものは原則として供給できない部品、単位を表わしていますのでご注意ください。

5. 部品一覧表には各部品の設計変更の経歴情報や新旧部品の互換性などについて記載してありますので、発注時に必ずご確認ください。

- ① 設計変更が発生している場合は、INDEX Noの下2桁（Rev桁）が更新されています。

例) ○○○○○-○○-○○○-00 → ○○○○○-○○-○○○-01

Rev桁

Rev桁

- ② MFG No欄には、該当する製造番号を開始号機および最終号機で表示しています。

例) S○○-○○○ (SはSTARTの略)

E○○-○○○ (EはENDの略)

- ③ C (COMPATIBILITYの略) 欄では、新旧部品の互換性について下表を基準にA～Dのアルファベット記号で表記しています。

互換性条件

互換性	旧	新	旧	新	旧	新	旧	新
	○	○	○	○	○	○	○	○
↓	↓	↓	↓	↓	↓	↓	↓	↓
○	○	○	○	○	○	○	○	○
	A		B		C		D	

- ④ ECO欄には相当する設計変更連絡書Noが記載されていますので、関連部品の発注に際しては、必ず設計変更連絡書の内容をご確認ください。

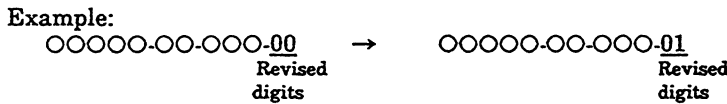
6. 本誌の保管は十分ご注意の上、責任を持って管理してください。（禁複写）

Publication of Parts List

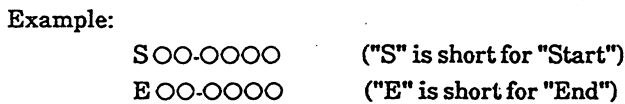
This parts list was compiled to permit repair components and spare parts to be correctly supplied. To permit it to be used most effectively, keep the following cautions in mind:

1. The disassembly diagram is divided into blocks, with individual parts and assemblies shown in sketch diagrams. The index no.s of the required parts and assemblies can be gotten from the disassembly diagram.
2. All parts are noted on the parts list in the order that they are listed in the index (by their index numbers). Part codes and part names can be gotten from the parts list.
3. When ordering parts, be sure to specify the index no., part code, part name and the quantity required. Improvements may be made on units without prior notice, so be sure to specify the model name and serial numbers when placing orders.
4. The number of parts per machine is noted in the "Quantity" column, but in some cases parts are noted as both unit and assembly parts. The part code differs according to whether the unit is separate or part of an assembly, so be sure to specify correctly when ordering. Parts and assemblies marked with an asterisk (*), as a rule, cannot be supplied.
5. Information regarding the history of design modifications and the compatibility of old and new parts is noted on the parts list. Be sure to confirm this when ordering parts.

(1) When the design has been modified, the last 2 digits (revised digits) of the index number have been changed.

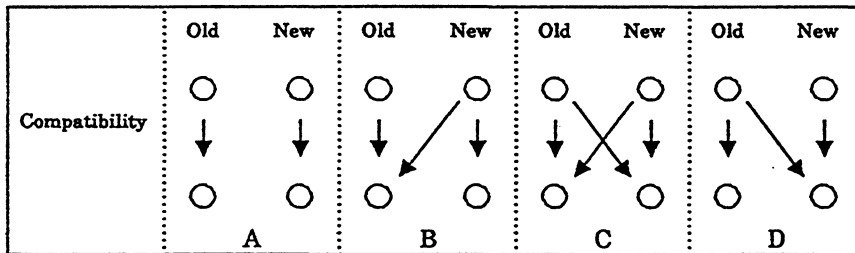


(2) The beginning and end of the applicable serial numbers are displayed in the manufacturing number ("Mfg. No.") column.



(3) The compatibility of old and new parts is displayed in letters A through D in the "C" (short for "Compatibility") column, based on the table below.

Compatibility Conditions



(4) The appropriate design modification memorandum number is noted in the "Eco" column, so when ordering related parts be sure to check the contents of the design modification memorandum.

6. Take the utmost precautions to store this list in a safe place to prevent it from being lost or stolen (brown copy).