



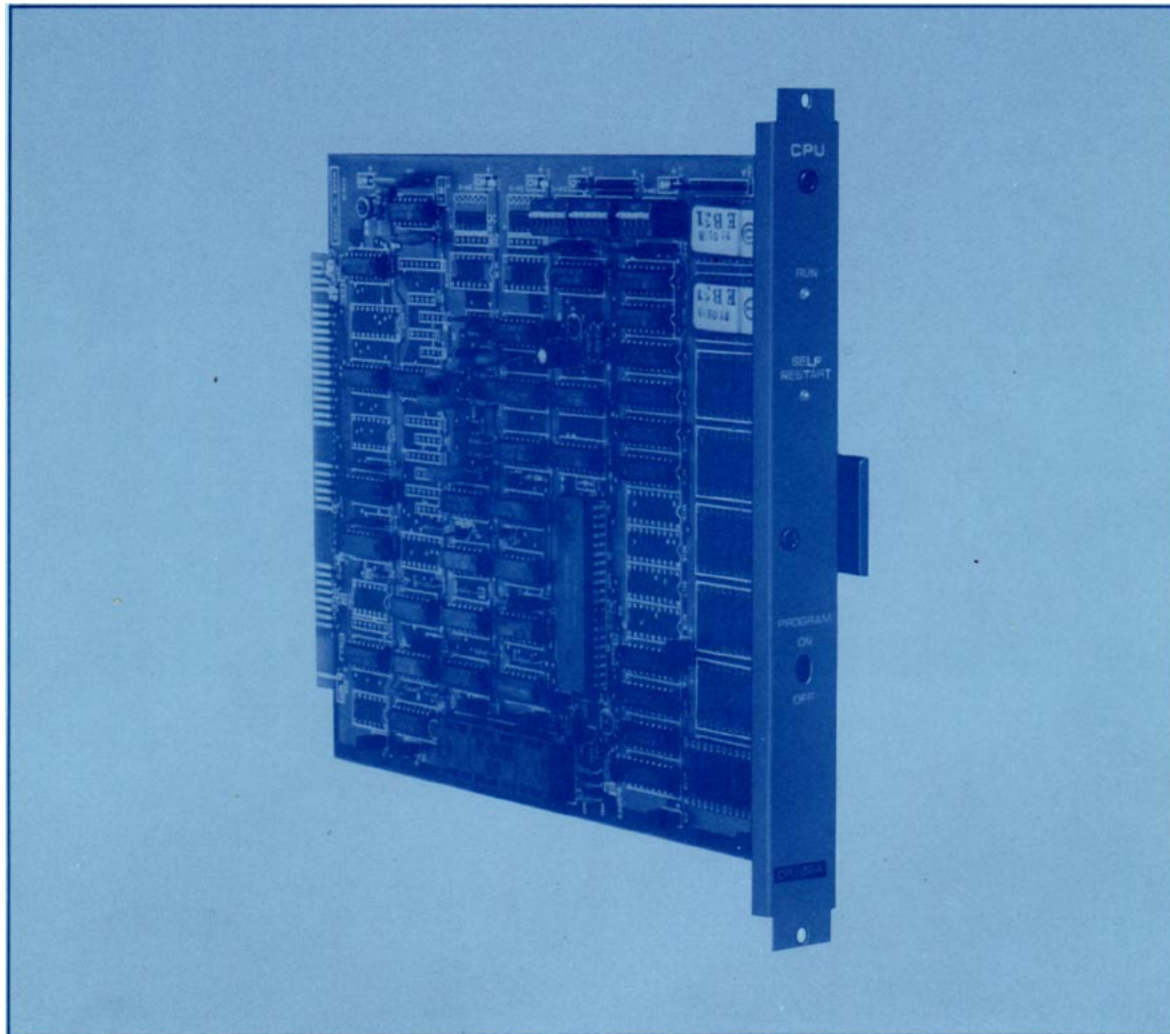
INTERCOM SYSTEM

TOA EXES-5000 INTERCOM SYSTEM

Central Processing Unit

CPU-52A

INSTALLATION HAND BOOK



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1. INTRODUCTION

This manual forms part of the Installation Manual for TOA INTERCOM SYSTEM EXES-5000.

You may add the CPU-52A to your TOA INTERCOM SYSTEM EXES-5000, according to your specific needs, to obtain various other functions. Correct operation of these additional functions are **not available by only connection of the additional equipments/devices**

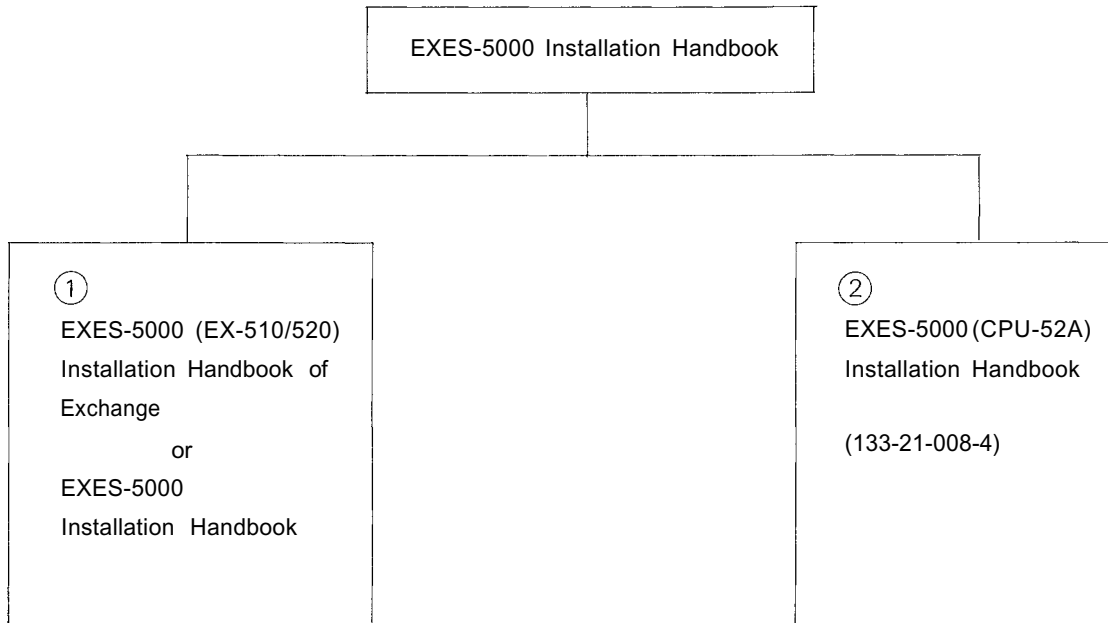
Provision of such additional functions requires the followings:

- (1) connection of the additional equipment, as required,
- (2) selection of functions which satisfy your needs and setting up these functions in the respective equipment.

For (1) Connections of Equipment, etc., refer to Manual of Installation Hand Book of. Model EX-510/520 EXCHANGE.

This "Installation Hand Book of CPU-52A" deals principally with (2) selection of functions and setting up of respective equipment.

There are certain minimum installation requirements to be met even though you may not need many additional functions or additional equipment, **it is still necessary to read "4. Initial CPU-52A Set Up" Page 5.** When you may use only some of the additional functions or equipments, it is not necessary to read instructions on unrequired functions. Make sure, however, that careful study of the necessary parts of this booklet should be done before proceeding further.



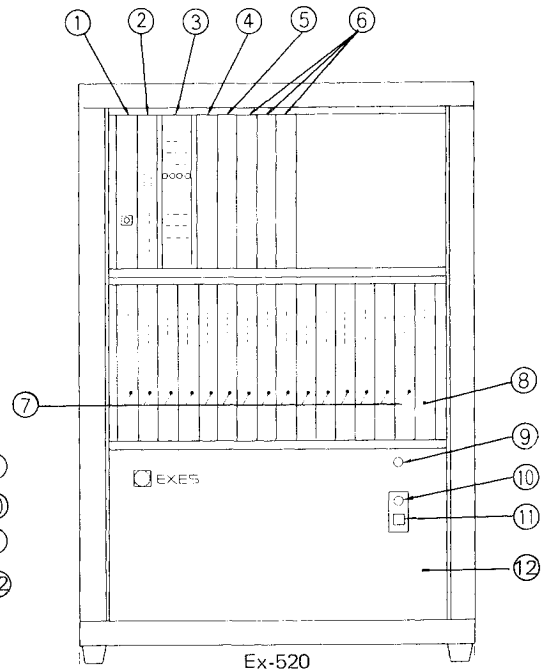
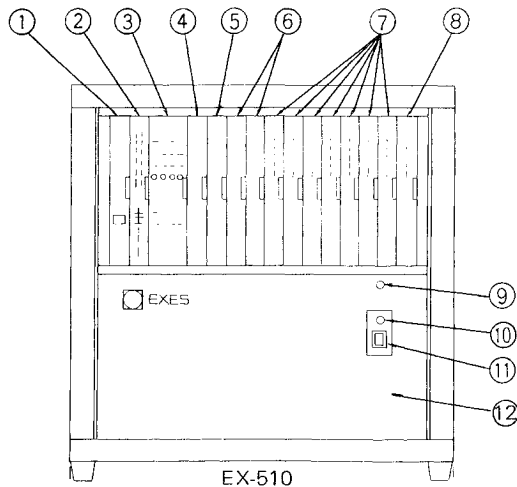
2. FUNCTIONS WHICH REQUIRE ADDITIONAL UNITS

Functions of the CPU-52A which require either the addition of specific units or processing in existing units are as mentioned below. Before installation and adjustment of equipment, make sure to check your system,

Function	Additional Equipment Required	Unit Model Nos.	Remarks
Talk-Back from paging Speaker	Talk-Back Unit	TKU-11	Optional amplifier (10W max.) may be required depending on application.
Conference	Conference Unit	CLU-52	
External PA Paging	Paging Interface Unit	PIU-52/52A	External PA Equipments is required.
Station Paging	Paging Interface Unit	PIU-52/52A	<ol style="list-style-type: none"> 1. Wiring of "Station Paging Assignment Plug" located at the back of the frame of the Exchange. 2. Cutting of LMU jumper wire to split station paging system, (Refer to Service Manual for LMU-52/52A, PIU-52/52A).

Position of each Unit

- 1 CPU-52A
- 2 OCU-52A
- 3 HCU-52
- 4 SGD-52A
- 5 CLU-52
- 6 DLU-52
- 7 LMU-52A
- 8 PIU-52A
- 9 AC POWER INDICATOR LAMP
- 10 BATTERY POWER INDICATOR LAMP
- 11 BUZZER STOP SWITCH
- 12 DS-510A

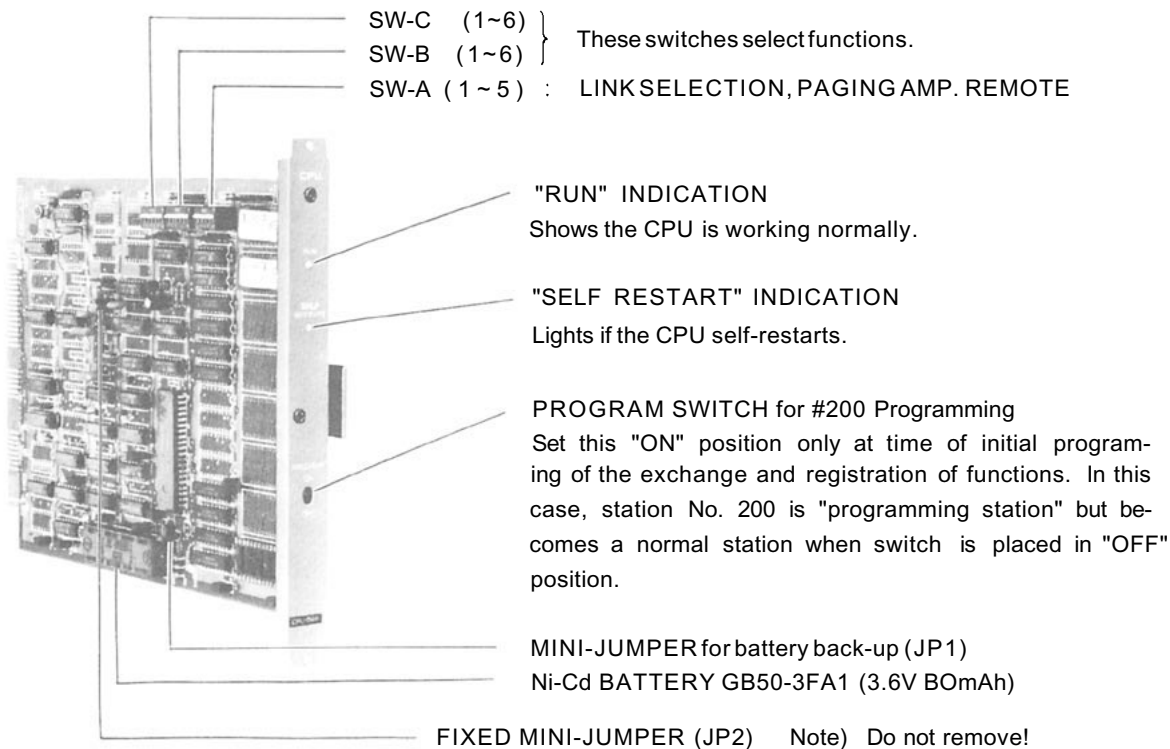


3. PRECAUTIONS FOR INSTALLATION OF CPU-52A

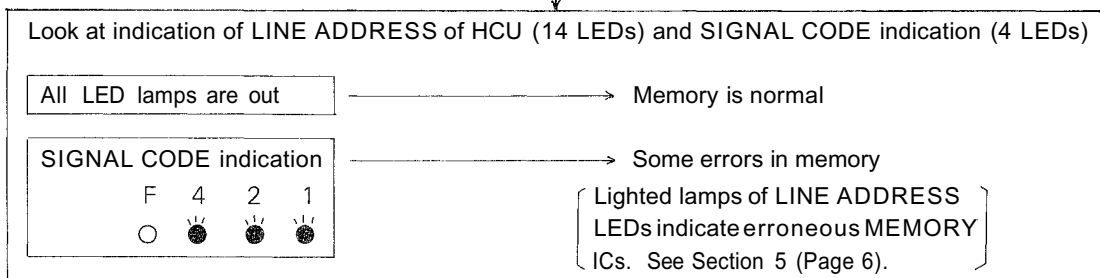
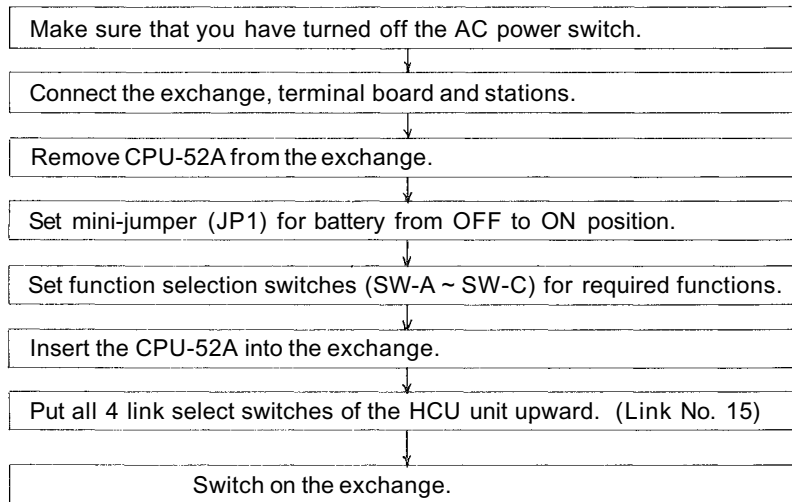
Please read following instructions carefully to ensure proper operation of the CPU-52A.

1. Be careful about damage by static electricity as the CPU-52A incorporates CMOS IC's. Do not touch components and connectors.
2. Turn off the AC power switch when you take out or insert the CPU-52A unit, or any other unit.
3. Always insert the CPU-52A unit into the "CPU" slot. Otherwise, there is a danger that the unit will be damaged.
4. Make sure mini-jumper for battery back-up is always placed in ON position each time it is used.
5. Incorrect setting of function select switches may lead to incorrect performance.
6. Even if you do not need programming functions, be sure to carry out initial programming and registration at station No. 200 when you install the new unit. Otherwise, some other functions may not work properly.
7. The Ni-Cd battery GB50-3FA1 is capable of saving important memory registration data even at times of power failure and we suggest you replace it at least every 4 years.
8. When shipping the CPU-52A unit independently, place the mini-jumper for battery back-up in off position. Then cover CPU back with cardboard, wrap connector section in aluminium foil and put it in a conductive bag.

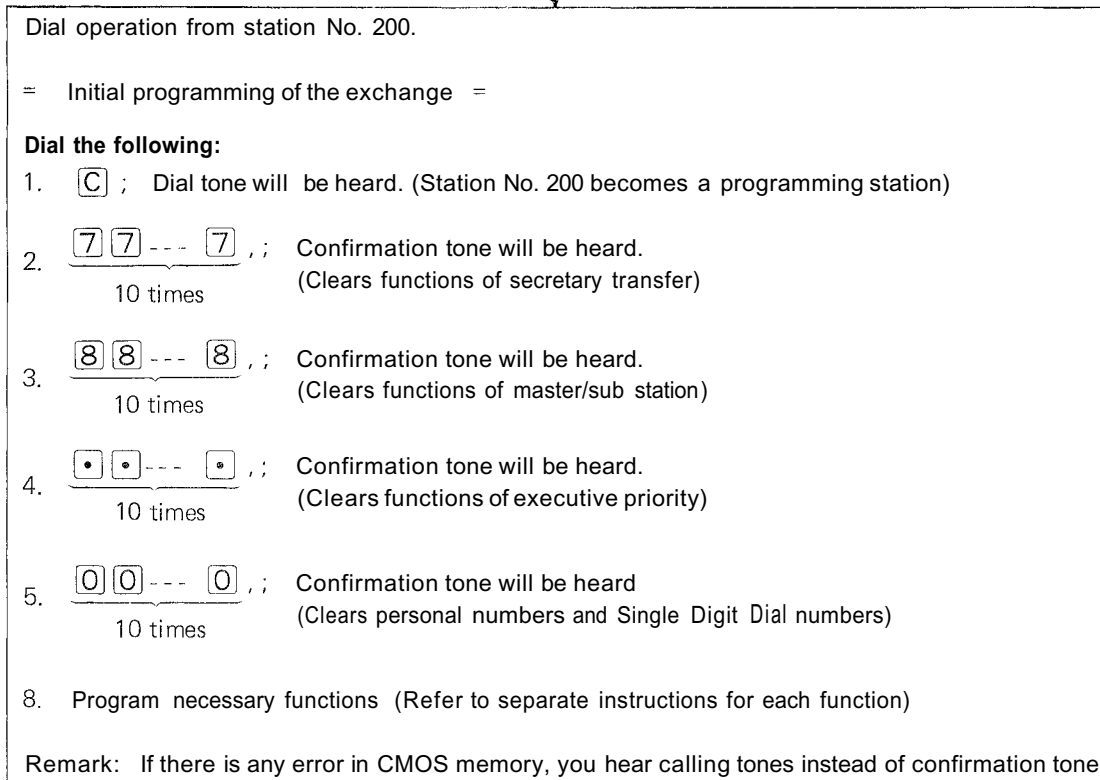
FUNCTIONSELECTSWITCHES



4. INITIAL CPU-52A SET UP



Place program switch on front panel of the CPU "ON".



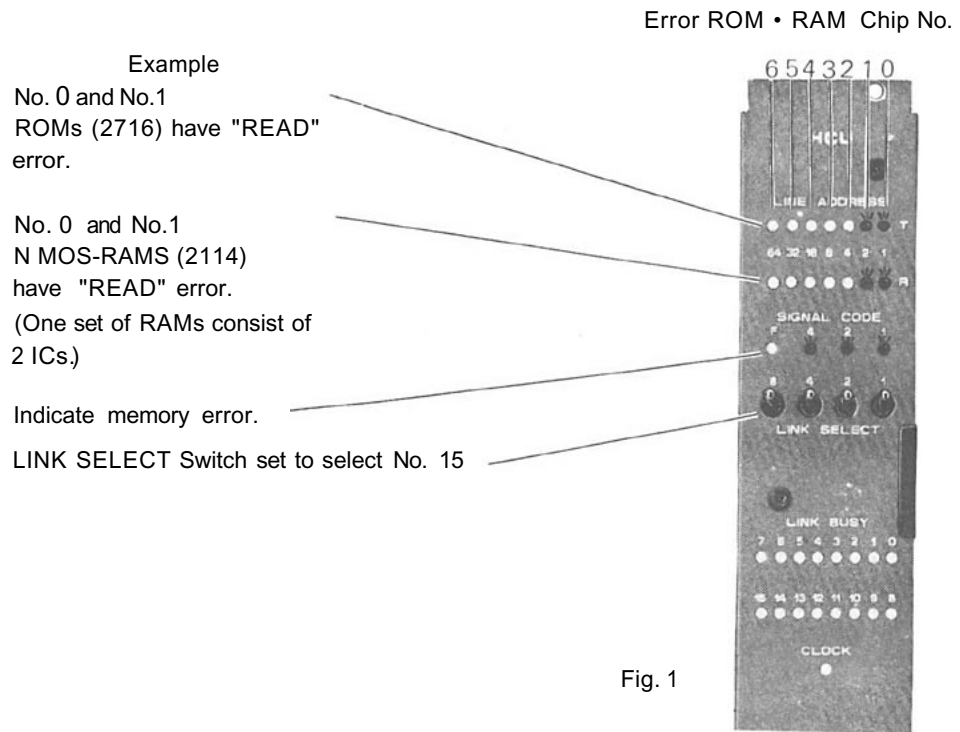
Place program switch on front panel of the CPU in "OFF" position.

Dial operation from station No. 200.
 (Station No. 200 becomes a normal station.)

5. CHECKING AND TESTING

5-1 Check of ROM & NMOS-RAM — No calls on the system.

1. Put the 4 "LINK SELECT" switches of the HCU upward (Link No. 15 SELECT) and switch on the AC power of the exchange.
2. If there is no error, the indication lamps will not light.
3. In the event of a memory error, the lamps may light as shown in the example of Fig. 1.
4. The error indications will remain on until you use Link No. 15 for communications.



5-2 Check of CMOS-RAM (Programmed data memory)

At the time of initial programming and registration using station No. 200,

1. You hear calling tone instead of confirmation tone, if there is CMOS memory error when registering single digit number or personal number.
2. Indication on front panel of the CPU.

"RUN" LED indicator

When the system is working normally, LED is "on".

Check its condition when the system fails to work normally.

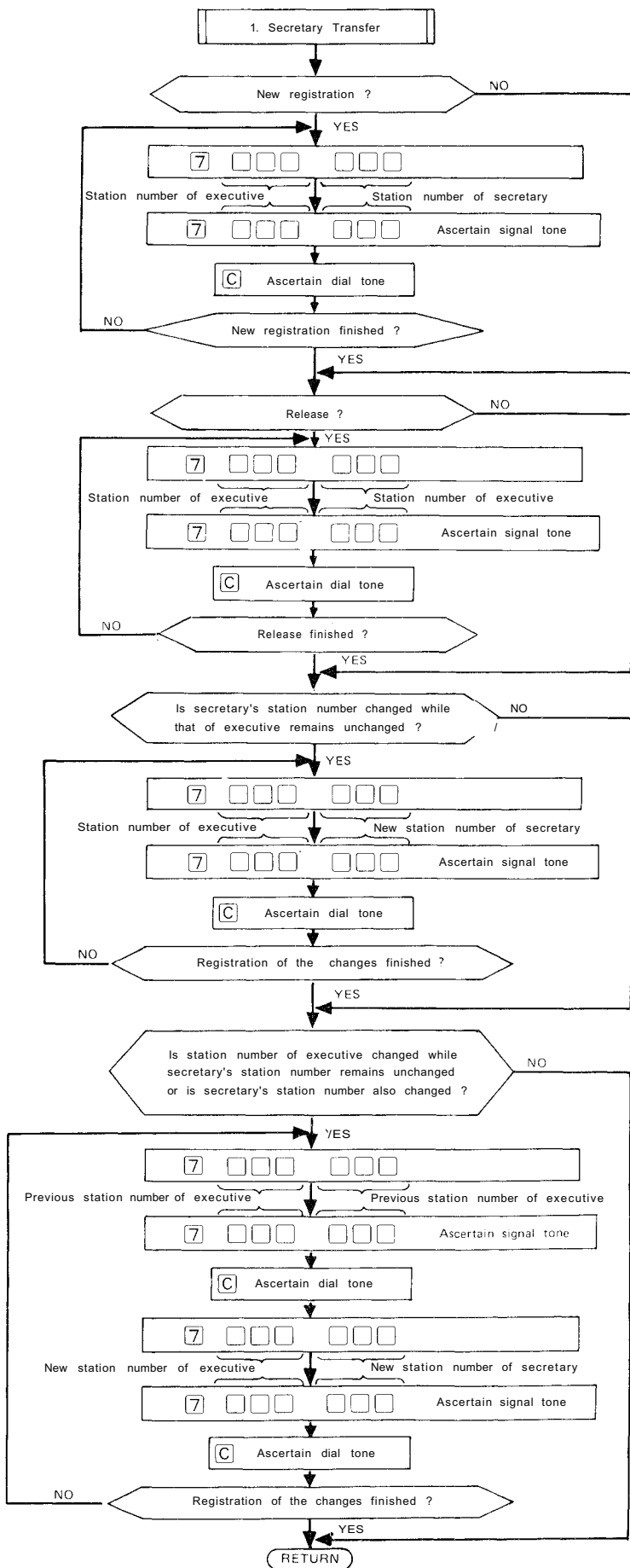
"SELF RESTART" LED indicator

This does not light when the system is working normally. Even if the high noise from the outside of the exchange causes the CPU to work abnormally, the CPU "self-restarts" and the system keeps on working normally. Once the CPU "self-restarts", the LED indicator is on, but it does not affect system. If you again cycle the AC power source, the LED indicator is turned off.

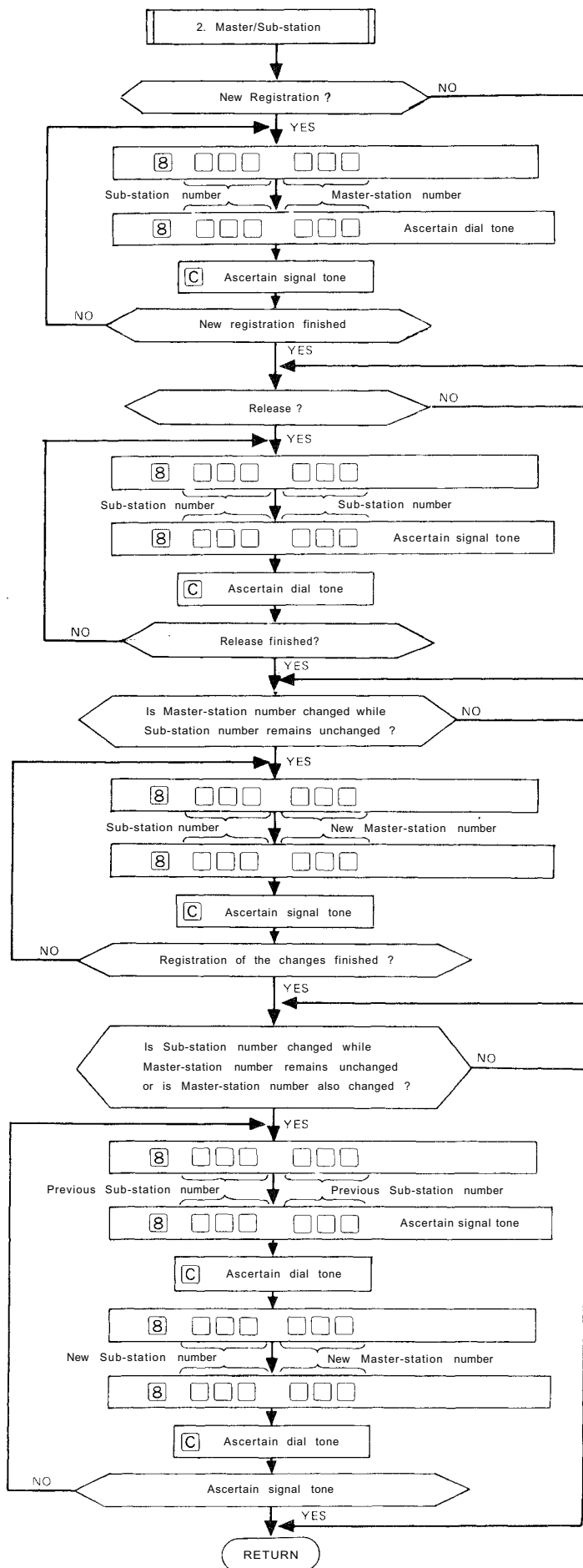
6. CPU-52A DIP SWITCHS FOR FUNCTION SELECTION

		Functions	On	Off																										
SW-A	<table border="1"> <tr><td>OFF</td><td>ON</td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>1</td><td></td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>2</td><td></td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>3</td><td></td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>4</td><td></td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>5</td><td></td></tr> </table>	OFF	ON	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1		<input checked="" type="checkbox"/>	<input type="checkbox"/>	2		<input checked="" type="checkbox"/>	<input type="checkbox"/>	3		<input checked="" type="checkbox"/>	<input type="checkbox"/>	4		<input checked="" type="checkbox"/>	<input type="checkbox"/>	5		Link Selection ; Link No. 0 ~ 3	Activate	Not Activate				
	OFF	ON																												
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5																														
	Link Selection ; Link No. 4 ~ 7																													
	Link Selection ; Link No. 8 ~ 11																													
	Link Selection ; Link No. 12 ~ 15																													
	Time Interval Adjustment before Paging Pre-announce tone	1 ~ 2 sec	None																											
SW-B	<table border="1"> <tr><td>OFF</td><td>ON</td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>1</td><td></td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>2</td><td></td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>3</td><td></td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>4</td><td></td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>5</td><td></td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>6</td><td></td></tr> </table>	OFF	ON	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1		<input checked="" type="checkbox"/>	<input type="checkbox"/>	2		<input checked="" type="checkbox"/>	<input type="checkbox"/>	3		<input checked="" type="checkbox"/>	<input type="checkbox"/>	4		<input checked="" type="checkbox"/>	<input type="checkbox"/>	5		<input checked="" type="checkbox"/>	<input type="checkbox"/>	6		Conference	Activate	Not Activate
	OFF	ON																												
	<input checked="" type="checkbox"/>	<input type="checkbox"/>																												
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6																														
	Call Transfer																													
	Priority & Executive Priority																													
	Paging, Paging during normal calls																													
	Calling tone Duration selection	0.7 Sec.	1.3 Sec.																											
	System Size Selection	EX-520	EX-510																											
SW-C	<table border="1"> <tr><td>OFF</td><td>ON</td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>1</td><td></td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>2</td><td></td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>3</td><td></td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>4</td><td></td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>5</td><td></td></tr> <tr><td><input checked="" type="checkbox"/></td><td><input type="checkbox"/></td></tr> <tr><td>6</td><td></td></tr> </table>	OFF	ON	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1		<input checked="" type="checkbox"/>	<input type="checkbox"/>	2		<input checked="" type="checkbox"/>	<input type="checkbox"/>	3		<input checked="" type="checkbox"/>	<input type="checkbox"/>	4		<input checked="" type="checkbox"/>	<input type="checkbox"/>	5		<input checked="" type="checkbox"/>	<input type="checkbox"/>	6		Paging Pre-announce Tone Duration Selection	1 Sec.	2 Sec.
	OFF	ON																												
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	1																													
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6																														
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7. STATION No. 200 PROGRAMMING FOR EACH FUNCTION

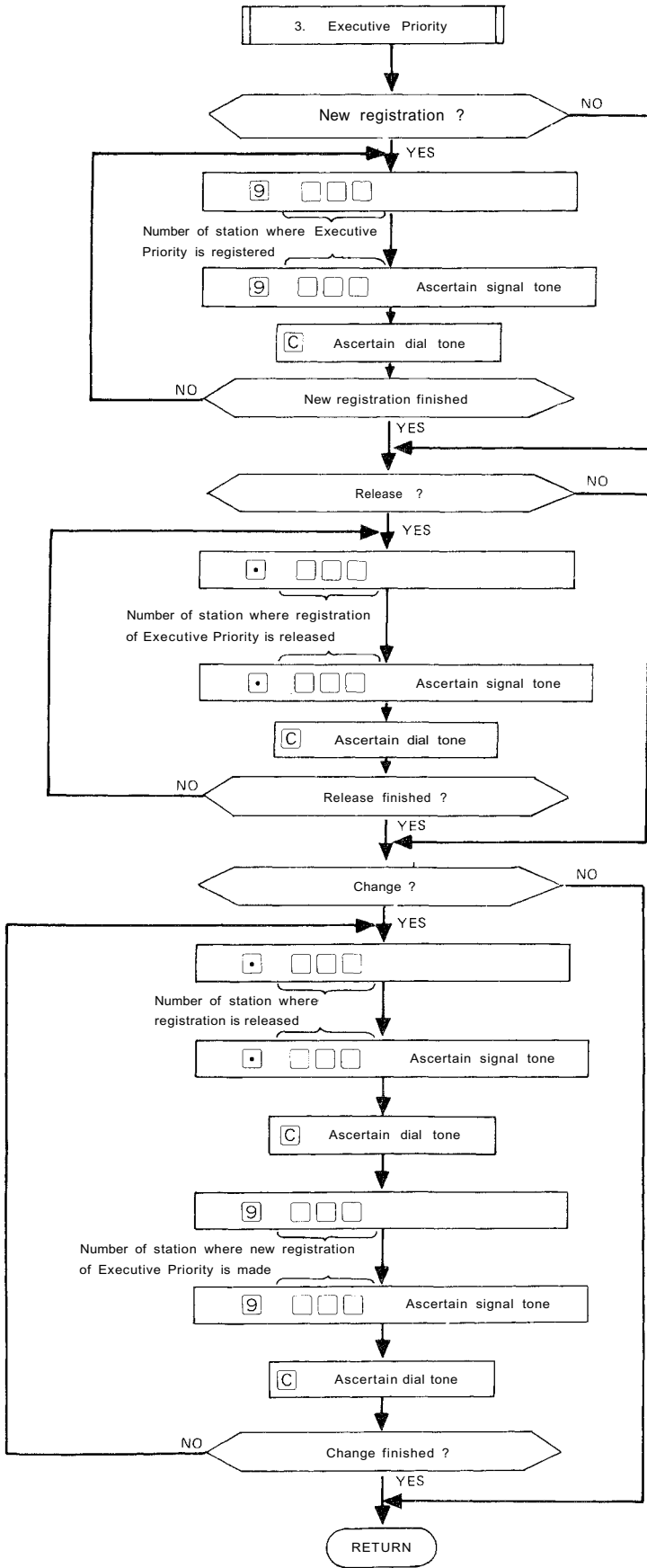


Remarks:
 1. In the event of failure to touch keys for correct dialing, touch "C" key to ascertain dial tone and re-start from the beginning.



Remarks:

1. In the event of failure to touch keys for current dialing, touch "C" key to ascertain dial tone and re-start from the beginning.



Remarks:

In the event of failure to touch keys for correct dialing, touch "C" key to ascertain dial tone and re-start from the beginning.

8. PROGRAMMING LIST FOR FUNCTIONS

Use these tables to keep a record of those functions assigned to each station.

Function Table For Stations (1)

Name	Function Station No.	Executive Priority	Secretary Station No.	Master Station No.	Station Paging Zone No.						
	200										
	201										
	202										
	203										
	204										
	205										
	206										
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	231										

Function Table For Stations (2)

Name	Station No.	Function	Executive Priority	Secretary Station No.	Master Station No.	Station Paging Zone No.						
	232											
	233											
	234											
	235											
	236											
	237											
	238											
	239											
	240											
	241											
	242											
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	260											
	261											
	262											
	263											

Function Table For Stations (3)

Name	Function Station No.	Executive Priority	Secretary Station No.	Master Station No.	Station Paging Zone No.						
	264										
	265										
	266										
	267										
	268										
	269										
	270										
	271										
	272										
	273										
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	293										
	294										
	295										

Function Table For Stations (4)

Name	Station No.	Function	Executive Priority	Secretary Station No.	Master Station No.	Station Paging Zone No.						
	296											
	297											
	298											
	299											
	300											
	301											
	302											
	303											
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	326											
	327											



TOA ELECTRIC Co., Ltd.

KOBE, JAPAN