

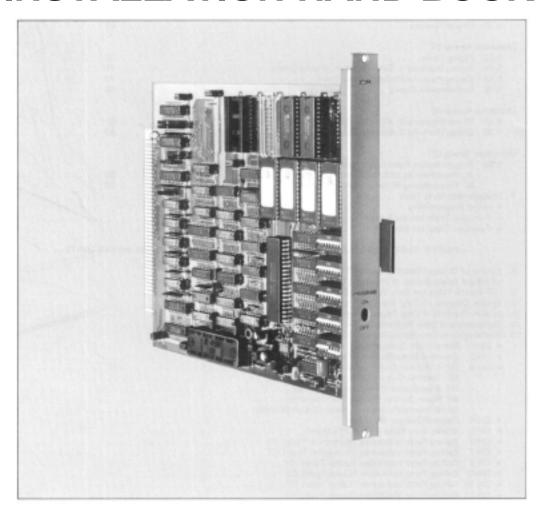
For			

TOA EXES-6000 INTERCOM SYSTEM

Central Processing Unit for Single Exchange System or Tie-line System

CP-64

INSTALLATION HAND BOOK





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INTRODUCTION TO THE INSTALLATION MANUAL FOR EXES-6000

This manual forms part of the Installation Manual for TOA INTERCOM SYSTEM EXES-6000.

You may add the CP-64 to your TOA INTERCOM SYSTEM EXES-6000, according to your specific needs, to obtain various other functions. Correct operation of these additional functions is not performed by simply connecting the additional equipments/devices.

Provision of such additional function requires the following:

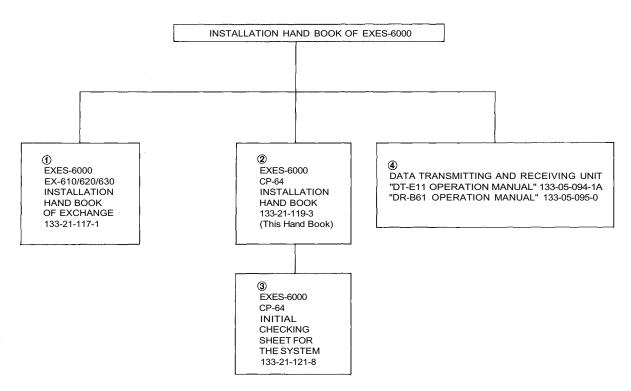
- (1) Connection of the additional equipment, as required.
- (2) Selection of functions which satisfy your needs and setting up these functions in the respective equipment.

For (1) Connections of Equipment, etc., refer to "① Installation Handbook of Model EX-610/620/630 EXCHANGE" or "④ Operation Manual of Data Transmitting and Receiving Units", etc.

This "Installation Handbook of CP-64" deals principally with (2) Selection of functions and setting up of respective equipment.

This Handbook also explains the connection method for the EXES-6000 Tie-line System using the CP-64 and the TI-62 units.

There are certain minimum installation requirements to be met even through you may not need many additional functions or additional equipment, it is still necessary to read "2. Initial CP-64 Set Up [Page 10]", when you may use only some or 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.



PART 1. TIE-LINE SYSTEM -

• TIE-LINE CONNECTION OF THE EXCHANGES

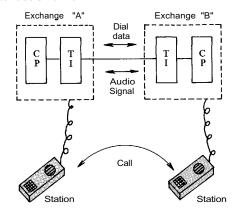
1. Functions of the Central Processing Unit CP-64 and Tie-line Interface Unit TI-62

To make communications between exchanges possible in the EXES-6000 system, the CP-64 and the Tie-line Interface Unit TI-62 are required in addition to the exchange EX-630.

The TI-62 is the interface unit for transmitting and receiving audio signals and dial data signals between the exchanges.

After receiving dial signals from the station, the CP-64 transmits the dial data signals to the TI-62 and instructs it to make calls to the other exchange. The CP-64 also receives the dial data signals from the other exchange through the TI-62 and calls the station which is instructed to call by the other exchange.

Overall functions of the system using the Tie-line function are determined by programming made in the CP-64.



2. Number of stations, paging zones and links

Composition of exchange (s)	Maximum number of links within own exchange	Maximum number of links between tielined exchanges	Number of exchange	Maximum number of stations	Maximum number of paiging zones
(EX-1) Without tie-lines	16 .		1	256	All call +31 zones
2 exchanges (Exchange 16 links Exchange B' (EX-2A) (EX-2B)	16 *1	16 *2	2	512	All call +30 zones *4 (15 zones/ 1 exchange)
3 a exchanges (Exchange A''' 8 links 8 links 8 links Exchange C'' (EX-3C) (EX-3B)	16 *1	8 between each tielined link *3	3	768	All call +45 zones (15 zones/ 1 exchange)

^{*1} The links within own exchange as well as the tie-line links are used in each tie-line communication.

^{*2} Each exchange needs one or two Tie-line Interface Unit TI-62.

^{*3} Each exchange needs two Tie-line Interface units TI-62.

^{*4} All call paging is provided to all the paging zones of all the exchanges connected by tie-line.

3. Numbering schedule for stations and paging zones

Type of avalance	Numbering	for stations	Numbering for paging zones		
Type of exchange	Standard Without personal number		All call	Zone	
Single Exchange (EX-1)	200~455	100~355	0 (00)	1~9 *2 (01-31)	
Exchange "A" (EX-2A/3A)		*1		01~15	
Exchange "B" (EX-2B/3B)	470~725	400~655 *1	00	16~30	
Exchange "C" (EX-3C)	740~995	700~955 *1		31~45	

^{*1} The first station number of each exchange can be set as any of the following numbers: 100/200/300/400/500/600/700/800/900

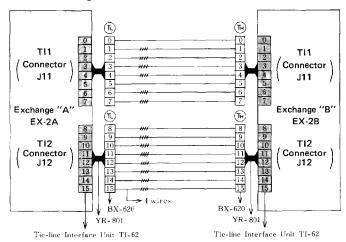
^{*2} No.1 through 8 are employed for Combination Paging.

WIRING FOR TIE-LINE CONNECTION OF THE EXCHANGES

- Each exchange can be connected by means of a cable with a diameter of 0.65mm (25.6 mils.) for a distance of up to 2km (5600 ft).
- Regarding the tieline links which are not used, turn off the DIP switch of each unused tieline link inside the Tie-line Unit TI-62.
- Connect "T" line (2 wires) of the 4 wires of each link to "R" line (2 wires) of the other exchange.
- The 2 wires of the "T" line and "R" line have no polarity.
 If the BX-620 is used, its terminals No.1 and 2 are for the "R" line and No.3 and 4 are for the "T" line.



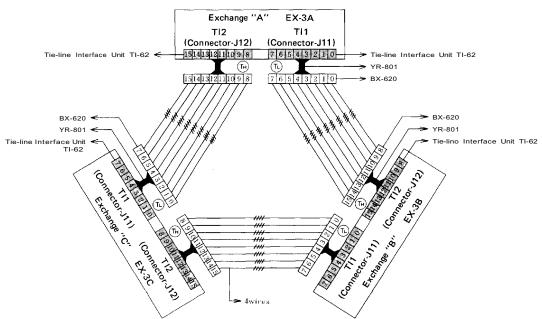
1. Wiring for tie-line connection of 2 exchanges



Note 1. Any combination of tie-line links between exchanges "A" and "B" is possible.

Note 2. Mount only one Tie-line Interface unit when the number of tie-line links is within 8.

2. Wiring for tie-line connection of 3 exchanges

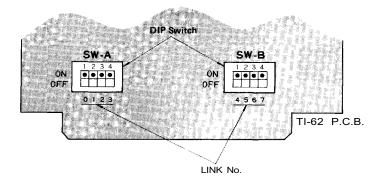


Note 1. Judging from the front of the exchange, TI-62 (TI1) (connector J11) is the left-hand unit and TI-62 (TI2) (connector J12) is the right-hand unit.

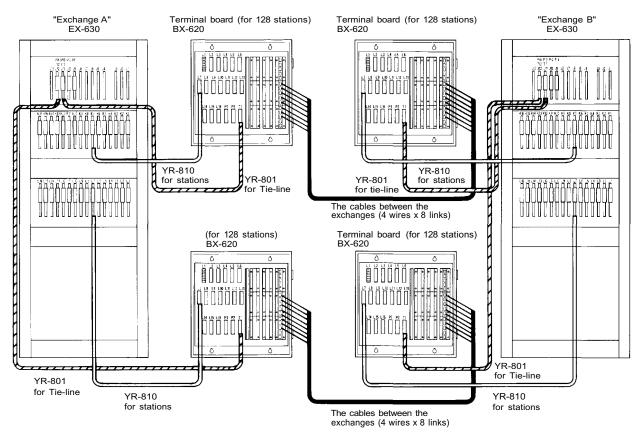
Note 2. Be sure to connect connector TI1(J11) to TI2(J12) between the exchanges. Connection of TI1 (J11) to TI1(J11) or TI2(J12) to TI2(J12) will lead to failure of proper operation of the system.

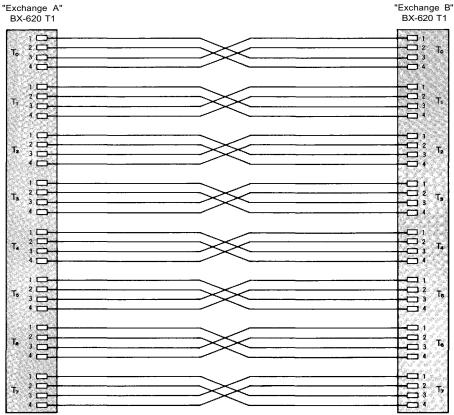
3. DIP Switch selection

- 1. Switching arrangements of DIP switches (E-1, E-2, E-3) in the CP-63 make each exchange to be of "EX-1" or "EX-2A" or "EX-2B" or "EX-3A" or "EX-3B" or "EX-3C" type. (See "4. CP-64 Dip Switches for Function Selection" P14)
- In the event of the tieline link not to be used, turn off its corresponding DIP switch on the TI-62 unit.

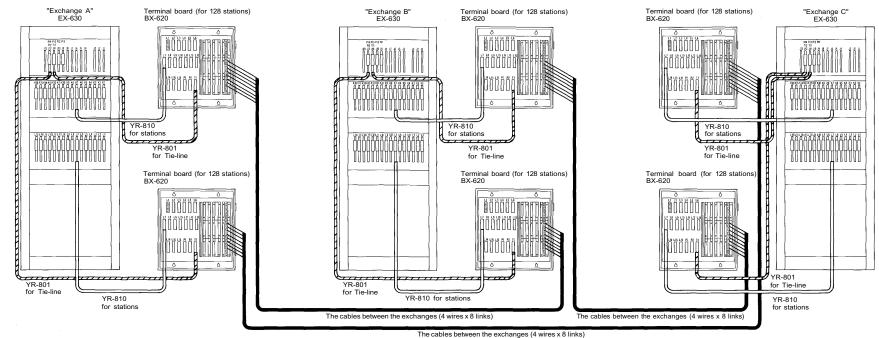


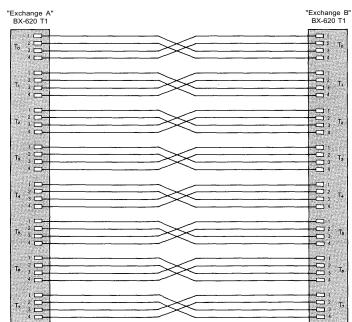
4. The Example of connection of two EX-630 exchanges





5. The Example of connection of three EX-630 exchanges





PART 2. OPERATING OF CP UNIT AND NO. 200 PROGRAMMING

1. PRECAUTIONS FOR INSTALLATION OF CP-64

Please read following instructions carefully to ensure proper operation of the CP-64

- Be careful about damage by static electricity as the CP-64 incorporates CMOS IC's. Do not touch components and connectors.
- 2. Turn off the AC power switch when you take out or insert the CP-64 unit, or any other unit.
- Always insert the CP-64 unit into the "CP" slot. Otherwise, there is a danger that the unit will be damaged.
- Make sure mini-jumper for battery back-up is always placed in ON position each time it is used.
- Incorrect setting of function select switches may lead to incorrect performance.
- 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. To keep the battery fully charged, do not cut the power off for long hours during the first 8 days after new installation. The CP-64 unit is capable of maintaining the programmed data for the period of 4 weeks after fully charged even in the event of long hours of power failure.

(About 4 weeks (25° C), About 8 days (40° C))

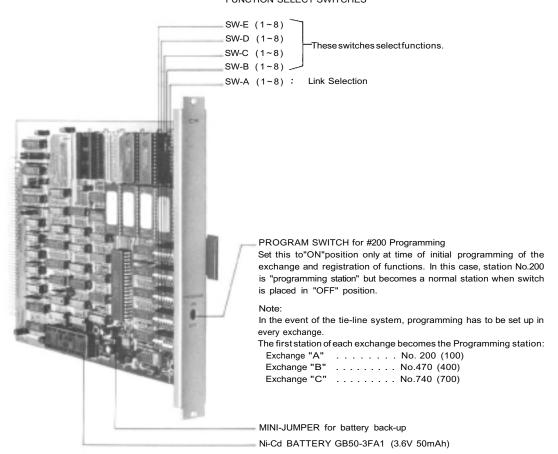
- 8. We suggest you replace the soldered button battery GB50-3FA1 (115-42-031-9) with the new one according to the following list that shows an expected life span of the battery.
 - Be sure to make the station No.200 programming after replacement of the battery.

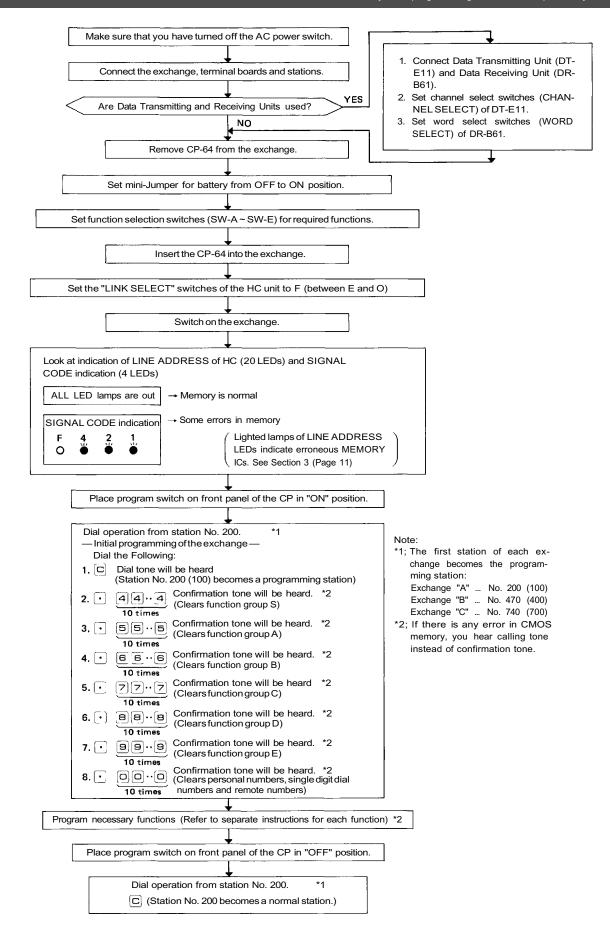
•Expected Life Span of small Ni-Cd Battery

Ambient temperature of exchange	Ambient temperature of battery	Life span
0°C	10°C	About 5 years
25° C	35° C	About 4 years
40° C	50° C	About 2 years

 When shipping the CP-64 unit independently, place the minijumper for battery back-up in "OFF" position. Cover the CP back with cardboard, wrap connector section in aluminum foil and put it in a conductive bag.

FUNCTION SELECT SWITCHES





3. TROUBLE SHOOTING

3-1 Check of ROM & NMOS-RAM - No calls on the system.

- Set the "LINK SELECT" switches of the HC to F (between E and O) 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.
- The error indications will remain on until you use Link No. 15 for communications.

3-2 Confirming of the CP normal working

If the CP, OC and HC are working normally, the HC's indication lamps of LINE BUSY, LINE ADDRESS and SIGNAL CODE go out.

When any of the lamps lies alight, it is possible that any of the CP, OC or HC is faulty.

Check first that the CLOCK lamp of the HC is lighting, then confirm that the CP is working normally by hearing the clicking sound of the PI unit's relay which is produced when the relay is activated through dial operation of the paging. If the CP is found working normally, chances are that the HC is faulty, followed by the OC.

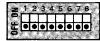
3-3 Check of CMOS-RAM (Programmed data memory)

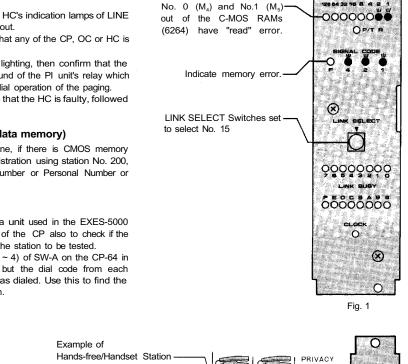
You hear calling tone instead of confirmation tone, if there is CMOS memory error at the time of initial programming and registration using station No. 200, or at the time of registration to Single Digit Number or Personal Number or Remote Number.

3-4 Dial receiving test

- Instead of the PI-62 unit, use the PIU-52A (a unit used in the EXES-5000 System) to check the dial receiving section of the CP also to check if the signal is correctly transmitted as dialed from the station to be tested.
- 2. If you place all "LINK SELECT" switches (1 ~ 4) of SW-A on the CP-64 in "OFF" position, conversation is impossible but the dial code from each station is indicated on the LED's of the PIU as dialed. Use this to find the cause of any fault of receiving dial information.
- With use of the PI-62 unit fitted with no LED, you can also check that the CP receives the dial signal by hearing the click sound of the relay produced when it is activated.

Fig. 2 DIP switches (SW-A of the CP)





Example

No.1 (M_2) and No.2 (M_3) out of the ROMs (2764)

have "read" error.

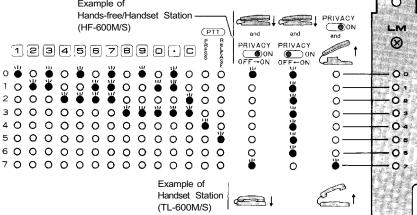


Fig. 3 Dial code indication

3-5 The order of link usage.

After power is on, links are used in numerical order for each communication. Remember this to help you when problems are found with specific links.

Remarks

- Be sure to avoid mistake at the time of DIP switch installation and No. 200
 Programming since such mistake may lead to trouble later.
- Be sure to make "No. 200 Programming" after "Programming Data Table" (attached to this manual) is filled out. Keep the finished "Programming Data Table" (Initial Checking Sheet for the System 133-21-121-8) as a part of complete drawings for each installation.

8

Error ROM - RAM Chip No.

6543210

3-6 The order of Tie-line link usage

The Tie-line Link Number which is used in calls between exchanges is not directly indicated, but you can possibly get it from the link number which is indicated on the HC-64.

When one Tie-line Link brings up some problems which cause the system not to work properly, try to find which link number is causing the problems from the indication on the HC-64 of the exchange making the call.

As Fig. 1 and Fig. 2 show, in the exchanges which make calls, the DL Link Number corresponds with TI Tie-line Link Number.

In the exchange which is called, the Tie-line Link Number of the TI Unit is fixed by connection between exchanges.

DL Links are used in numerical order.

1. Tie-line for 2 exchanges

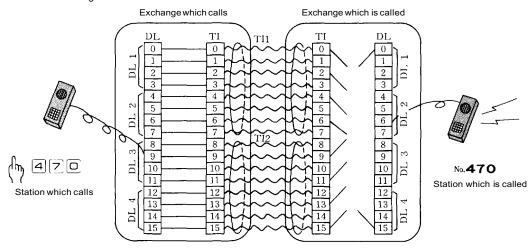


Fig. 1

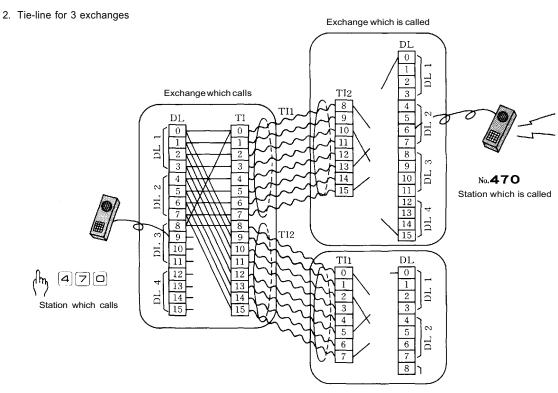


Fig. 2

Reference for Connection Link Number between DL and TI Link

	Exchange which ca	Exchange which is called				
	TI Tie-line	Link Number	r		DL Link Number	
DL Link No	2 Tie-lines	3Tie	-lines	TI Tie-line Link Number		
	To TI1,TI2	To TI1	ToTI2			
0	0	0	8			
1	1	1	9			
2	2	2	10			
3	3	3	11			
4	4	4	12		After power switch is on, Links are used in numerical	
5	5	5	13			
6	6	6	14			
7	7	7	15	Fixed by Connection Cable between		
8	8	0)	8	Exchanges	order	
9	9	1	9			
10	10	2	10			
11	11	3	11			
12	12	4	12			
13	13 5		13			
14	14	6	14			
15	15	7	15			

Note.
If the TI Tie-line Link which corresponds with the DL Link No. is already busy, then, the next Tie-line Link is automatically used.

4. CP-64 DIP SWITCHES FOR FUNCTION SELECTION

	OFF ON	Γ		Function	ons		s	witch OFF	Switch ON	1
	OFF ON		Link Selection	n; Link No. 0 ~ 3		t Activate	Activate	1		
				n; Link No. 4~ 7			_	t Activate	Activate	1
	3 -			n; Link No. 8 ~ 1 ′	 1		No	t Activate	Activate	1
SW-A		<u></u> _}		n; Link No. 12 ~ 1				t Activate	Activate	1
OW-A	- 5	}	Not Activate					OFF)		1
		}	Not Activate					OFF)		1
	1 7 -		Press-to-talk (Control	<u>`</u>	ot Activate	Activate	1		
			Not Activate			OFF)	7,0117410	1		
		L	- Not Activate				,(0)]
	OFF ON	Ė	Conference				No	t Activate	Activate	ĺ
				Paging During No	urmal Call					*1
								t Activate	Activate	' *2
OM/ D	3				hest Executive Pr	ionty	-	t Activate	Activate Highest Executive	
SW-B	4			ion Executive/Hig				ective Priority	Highest Executive Priority	
	5			nsfer, Group Hun	ting	-		ot Activate	Activate	4
	6		Not Activate				<u>`</u>)FF) 		-
	• 7 -	·	Pager				No	t Activate	Activate]
	<u>•</u> 8	{	Not Activate				(0	OFF)]
	OFF ON	į								į
	1 -		Paging				No	ot Activate	Activate	*3
	<u>•</u> 2 -	· <u>-</u>	Emergency All-Call					ot Activate	Activate	*1
	• 3 -		Paging Priority				No	ot Activate	Activate	*1
SW-C	• 4		Combination Paging					ot Activate	Activate	*1
	5 -		Selectable Dial Operation for Paging					. 8 X		
	• <u> </u>		Selection of P	ersonal Number C	Calling/Paging	Calling		paging	*1	
	7 -	{	Selectable Dia	al Operation for Pa	aging Response		(X)E		. 9]
	18		Time Interval tone	Adjustment befor	e Paging Pre-anno	ouncement	N	lone	1 sec	
	OFF ON	Ī							1	1
	1 -		Stations Allow and General F	ed Access to All Purpose Control	Call, Conference		Not Activate		Activate	
	2 -		Call Forwardin				No	ot Activate	Activate	1
	• 3 -		Not Activate				(OFF)			1
SW-D	4		Group Blockir	ng			No	t Activate	Activate	
	<u> </u>		Programmable	Station Numberi	ng		No	t Activate	Activate	Ì
	• 6 -		Not Activate				((OFF)		
	7		General Purpo	ose Control			No	t Activate	Activate	1
	 		Output Capac	ity of General Pu	rpose Control			mall	Large	*4
	<u> </u>	ļ							<u> </u>	<u> </u>
		ί	1 x Exchange	2 x Exc	change			3 x Exchange	;	ا ج
	OCC ON	Ì	EX-1	EX-2A	EX-2B	EX-3A		EX-3B	EX-3C	Exchange Selection
	OFF ON		OFF	OFF	OFF	ON		ON	ON	8
	2 -		OFF	ON	OFF	ON		OFF	ON	l g
	1 3		OFF OFF ON OFF					ON	ON	۱ پ
SW-E	1 4 -				ation (Lamp type)		\\/itl	hout memory	With memory	1/ 11/1
OVV-L	5	}		Mode at Privacy				racy	Continuous calling	}
	1 6 6	}	·		200 Programming)		_	Activate	Activate	-
									Programming	
				st Station Number				. 200~	Frogramming	*5
	<u>•</u> 8		Not Activate	F				witch OFF	Outital Chi	-
	Functions								Switch ON]

Note: CP DIP SWITCHES FOR FUNCTION SELECTION

- *1 Be sure to place the SW-C-1 (Paging) switch in the ON position when paging and its allied functions are used.
- *2 To perform the "Highest Executive Priority" function in Tie-line system, place this switch of each exchange in the ON position.
- *3 Turn on this switch of each exchange even if not all the exchanges require paging function in Tie-line system. Otherwise, the exchange with this switch off can not perform all-call paging.
- *4 Selection of "Large" adds 1 more digit to the number operated.

 Example:
 3 (X) X

 *5 Standard (SW-E-7 OFF):

	_		
Exchange	Α	В	С
Hardwired station number	200~455	470~725	740~995

Programming (SW-E-7 ON):

The first station number of each exchange in order of the exchanges. A, B and C can be set as any of the following numbers: 100/200/300/400/500/600/700/800/900

(Hardwired station number)

For the personal number call, use the station number of 100s.

5. FUNCTION CODE TABLE FOR STATION NO. 200 PROGRAMMING

A. Clearance at one time

Function Group	Function	Func- tion Code		Clearance of Function	Function Registration on All Stations	Clearance of Function	on by Function Group	
	Numbering schedules of Tie-line system	40	040	Confirmation tone				
	Selection of Calling Tone	41	041	Confirmation tone				
s	Selection of Paging Pre-announcement Tone	42	042	2 Confirmation tone		Confir-		
	Time-out of Conversation	45	045	Confirmation tone		mation tone	(Clears function group S)	
	Time-out of Paging Call	46	046	Confirmation tone		To times		
	Executive Priority	50						
	Continuous Calling Tone	51						
	Station Allowed Access to All Call	52						
	Stations Allowed Access to Conference	53						
	Automatic Access to Paging	54		Confirmation	Confir-	Confir-		
A	Stations Allowed Access to One Shot Make Output	56	×:0~4 6~9	O O · · · · · O O Confirmation tone	PTT PTT · · · · PTT mation tone	555 mation tone	(Clears function group A)	
	Stations Allowed Access to Make/ Brake Output	57	09	TO (IIIIO)				
	Stations Allowed Access to 8 Selectable/ Decimal Output	58						
	Stations Allowed Access to 4 Decimal Digits Output	59						
	Secretary Transfer	60						
В	Master/Sub	61	*:0,1,2	O O O O Confirmation tone		Confirmation tone	(Clears function group B)	
	Group Hunting	62	x. 0, 1, 2	10 times		10 times		
	Paging Response, Paging Priority	70				Confir-		
С	Group Blocking of Each Group	71		O O · · · · · O O Confirmation tone		mation tone	(Clears function group C)	
	Group of Calling Party Indication	72	x:0,1,2	10 times		10 times		
	Combination Paging	80						
D	Group Blocking: Allowing Calls Among Groups	81	OBX	O O · · · · · O O Confirmation tone		Confirmation tone	(Clears function group D)	
	Group Blocking: Allowing Access to Paging Zones	82	x:1,2	10 times		10 times		
E	Programable Station Numbering	90	.90	Confirmation tone		999 Confirmation tone	(Clears function group E)	
*	Personal Number Single Digit Dialing Remote Response	-				Confirmation tone	(Clears functions of Personal No., Single Digit Dialing and Remote Response)	

Note: *Can be registered at each station.

FUNCTION CODE TABLE FOR STATION NO. 200 PROGRAMMING

B. Programming of System

Function Group	Function	Function Code	Remarks	Operating for Programming	Initially Programmed Mode	
	Numbering Schedules of Tie-line System Selectable first station number of each	40	The following standard station numbering schedules of the exchanges A, B and C are obtainable. (Hardwired station number) SW-E-7 A B C OFF 200~455 470~725 740~995 ON 200~455 500~755 800~999	•40 0	Standard Station Numbering A/B/C= 200/470/740 (SW-E-7 OFF)	
	\ exchange		The first station number of each exchange in order of the exchanges, A, B and C can be set as any of the following numbers: 100/200/300/400/500/600/700/800/900 (Hardwired station number)	First Station No. First Station No. of Exchange "A" of Exchange "B" of Exchange "C" 1~9 (First digit) 2~9 (First digit) 3~9 (First digit)	or A/B/C= 200/500/800 (SW-E-7 ON)	
S	Selection of Calling Tone	41	Two different calling tones, single note tone or trill note tone, are available in selection for the Hands-free system except the continuous calling tone.	O: Without Calling Tone 1: Single Note Tone (0.2 sec.) 2: Trill note Tone (0.3 sec.)	Trill note Tone (0.3 sec.)	
	Selection of Paging Pre-announcement Tone Duration	42	You can select the length of time of paging pre-announcement tone.	O: Without Paging pre-announcement Tone 1: Paging Pre-announcement Tone (1 sec.) 2: Paging Pre-announcement Tone (2 sec.)	Paging Pre-announce- ment Tone (2 sec.)	
	Time-out Conversation	45	Programming is possible so that stations can be disconnected automatically from the speech path in the unit of Minute and the Hurry-up Signal Tone can be heard 10 seconds before the disconnection.	00: Without Time-out function 01~99: Length limited (minute)	Without Time-out	
	Time-out Paging Call	46	Programming is possible so that stations can be disconnected automatically from the Paging circuit in the unit of Minute and the Hurry-up Signal Tone can be heard 10 seconds before the disconnection.	00: Without Time-out function 01~99: Length limited (minute)	Without Time-out	

FUNCTION CODE TABLE FOR STATION NO. 200 PROGRAMMING

C. Programming of each Function

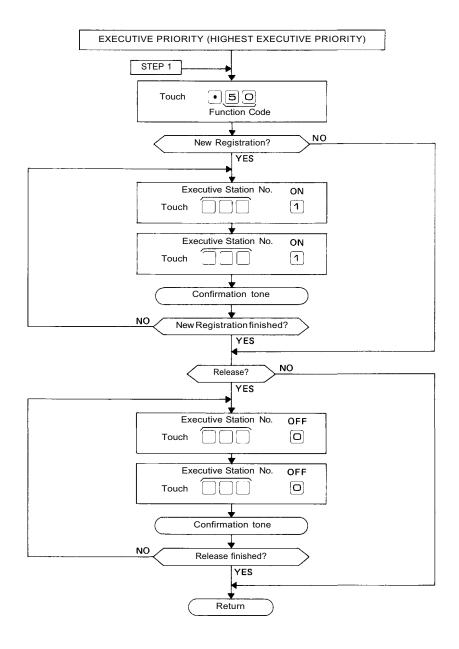
<u> </u>	ogramming of	Cucii	Turicuon								
Func- tion Group	Function	Func- tion Code	1st Parameter	2nd Parameter	3rd Parameter	4th Parameter	OPERATING FOR PROGRAMMING				
	Executive Priority	50	Station No.	ON/OFF (1/0)	M /	N /					
	Continuous Calling Tone	51	Station No.	ON/OFF (1/0)	\ /	\ /					
	Station Allowed Access to All Call	52	Station No.	ON/OFF (1/0)							
	Stations Allowed Access to Conference	53	Station No.	ON/OFF (1/0)							
	Automatic Access to Paging	54	Station No.	ON/OFF (1/0)	\/	\/					
A	Stations Allowed Access to One Shot Make Output	56	Station No.	ON/OFF (1/0)	X	X	(5 X),, Confirmation, Confirmation x:0~4				
_	Stations Allowed Access to Make/ Break Output	57	Station No.	ON/OFF (1/0)			6~9 (1st) (2nd) Repeat Repeat				
	Stations Allowed Access to 8 Selectable (One Shot Make)/ Decimal Output	58	Station No.	ON/OFF (1/0)							
	Stations Allowed Access to 4 Decimal Digits Output	59	Station No.	ON/OFF (1/0)							
	Secretary Transfer	60	Executive Station No.	Secretary Station No.	\setminus		(•) EX Confirmation Confirmation				
B Mas	Master/Sub	61	Sub Station No.	Master Station No.	\times		x: 0, 1, 2 Station No. Station No. Station No. (1st) (2nd) (1st) (1st)				
	Group Hunting	62	Main station No.	Transfered Station No.			Repeat Repeat				
	Paging Zone	70	Zone No. (01~15)	The First Station No. of the Zone	The Last Station No. of the Zone		[•] 7 [×]				
С	Group Blocking: Establishment of Each Group	71	Group No. (1~8)	The First Station No. of the Group	The Last Station No. of the Group	he Last Station lo. of the Group	Last Station of the Group	100 Y. D. L.Z. Zone No. The Let Station. The Last	x:0,1,2 Zone No. The 1st Station The Last Zone No. The 1st Station The Last O1~45 No. Station No. 01~45 No. Station No.		
	Group of Calling Party Indication	72	Group No. (1~8)	The First Station No. of the Group	The Last Station No. of the Group		Repeat				
	Combination Paging	80	Combination Zone No. (90~99)	Zone No. (s) (01 ~	31) (Plural)		** (Q,1) Combination Paging No.90~99 Zone No. (a) 01~31 Zone No. (a) 01~31				
D	Group Blocking: Allowing Calls Among Groups	81	Calling Group No. (1~8)	Called Group No.(s (Plural)	s) (1~8)		Group No. of Calling Group Group No. (s) of Called Group Partes 1~8 Repeat Repeat				
	Group Blocking: Allowing Access to Paging Zones	82	Paging Zone No. of Paged Group (00~15, 90~99)	Paging Group No.(s (Plural)	s) (1~8)		Paging Zone No. Group No. (1~8) Paging Zone No. Group No. (1~8) Repeat Confirmation PTD				
E	Programable	90	Hardwired Station No. *2	Programmed Station No. *2			Confirmation Confi				
	Station Numbering		The First Hardwired Station No.	The Last Hardwired Station No. *1	The First Programmed Station No.	The Last Programmed Station No.	The first The Last The first The Last Hardwired Hardwired Station No. Station No. Station No. The Fepeat Repeat Repeat				

^{*1} Station No.'s except Programmed Station No.'s are Hardwired Station No.'s No.100~/200~/300~/400~/470~/500~/600~/700~/740~/800~/900~.

^{*2} Programmed Station No.'s are No.200~999/No.100~999

6. STATION NO. 200 PROGRAMMING FOR EACH FUNCTION

6-1 EXECUTIVE PRIORITY (HIGHEST EXECUTIVE PRIORITY) • (FUNCTION CODE 50)



NOTES

1. To allow all the stations to have this function.

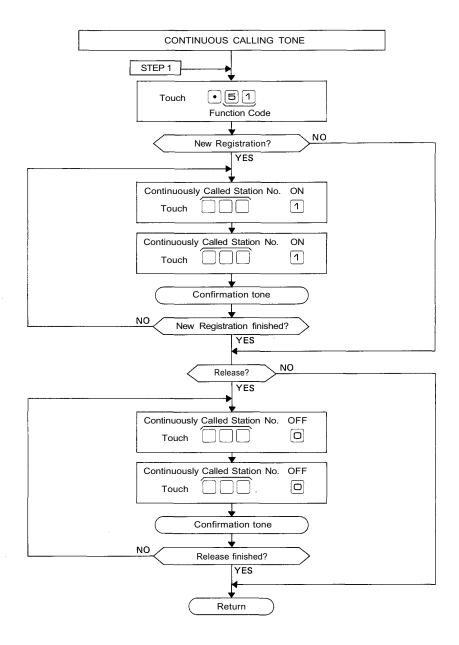
Touch \bullet 5 0 PTT PTT ... PTT (Confirmation tone will be heard.)

Be sure to depress the $\begin{tabular}{c} \begin{tabular}{c} \begin{$

2. To release at one time the data programmed into all the stations for this function,

- Re-start at Step 1 when mis-dialing occurs. (All other registrations remain valid.)
- 4. CP DIP switch B-3 must be "ON" to employ this function.
- * Executive Station: Executive or Highest Executive Station.

6-2 CONTINUOUS CALLING TONE (FUNCTION CODE 51)



NOTES

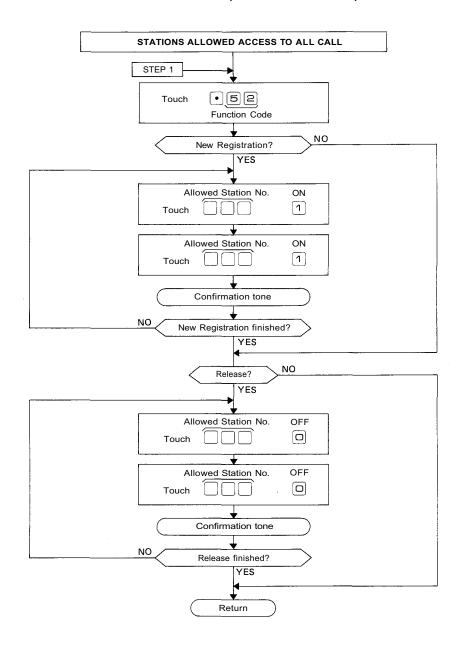
1.	To allow	all	the	stations	to	have	this	function

Be sure to depress the $\overbrace{\mbox{\sc PTT}}$ key steadily.

2. To release at one time the data programmed into all the stations for this function,

- Re-start at Step 1 when mis-dialing occurs.
 (All other registrations remain valid.)
- 4. CP DIP switch E-6 must be "ON" to employ this function.

6-3 STATIONS ALLOWED ACCESS TO ALL CALL (FUNCTION CODE 52)



NOTES

1.	To allow all	the stations	to have	this	function

Touch \bullet 5 2 $\underbrace{\text{PTT}}$ $\underbrace{\text{PTT}}$ \cdots $\underbrace{\text{PTT}}$ (Confirmation tone will be heard.)

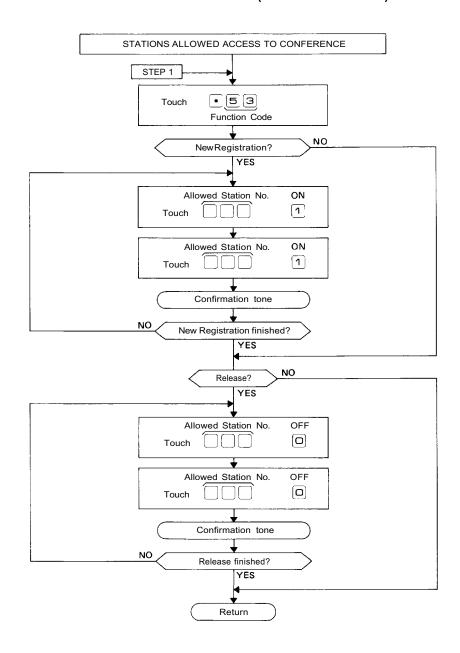
Be sure to depress the PTT key steadily.

2. To release at one time the data programmed into all the stations for this function.

Touch \bullet 5200....0 (Confirmation tone will be heard.)

- 3. Re-start at Step 1 when mis-dialing occurs. (All other registrations remain valid.)
- 4. Programming is necessary only if CP DIP switch D-1 is "ON".

6-4 STATIONS ALLOWED ACCESS TO CONFERENCE (FUNCTION CODE 53)



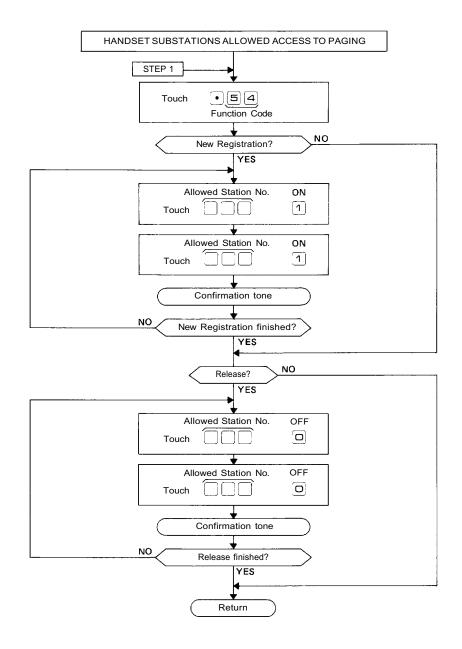
NOTES

- 1. To allow all the stations to have this function.
 - Touch [•] 5 3 PTT PTT ... PTT (Confirmation tone will be heard.)

Be sure to depress the $\begin{tabular}{c} \begin{tabular}{c} \begin{$

- 2. To release at one time the data programmed into all the stations for this function.
 - Touch \bullet 5 3 \bullet \bullet (Confirmation tone will be heard.)
- Re-start at Step 1 when mis-dialing occurs. (All other registrations remain valid.)
- Programming is necessary only if CP DIP switch D-1 is "ON".
 Switch B-1 must be "ON" to employ this function.

6-5 AUTOMATIC ACCESS TO PAGING (FUNCTION CODE 54)



NOTES

1. To allow all the stations to have this function.

Touch

PTT PTT ... PTT (Confirmation tone will be heard.)

Re-start at Step 1 when mis-dialing occurs. (All other registrations remain valid.)

Be sure to depress the PTT key steadily.

2. To release at one time the data programmed into all the stations for this function.

COMPLEMENTARY NOTES

- (1) Automatic Access to Paging
 - This function facilitates Paging / Paging response from a Substation TL-600S. Just picking up the Handset of Substation automatically activates Paging or Paging Response mode.
- (2) Required Programming for Automatic Access to Paging from Handset Substation.
- 2-1) First, connect a Master Station HF-600M or TL-600M in place of a Substation TL-600S.
- 2-2) Program at that station a necessary function for Single Digit Dialing such as Paging, Paging Response, Personal Number Call or etc.
- 2-3) Then, replace the Master Station with a Substation TL-600S.
- 2-4) Program "Automatic Access to Paging from Handset Substation (Function Code 54)" at the Station No. 200 according to the programming instructions.
- (3) Single Digit Dialing and Automatic Access to Paging
 By programming "Single Digit Dialing" at any master station, a
 single touch of the dial activates "Station Call", "Personal
 Number Call", "Paging" or "Paging Response" mode. But in
 using a TL-600S and a HF-600S, "Automatic Access to Paging
 from Handest Substation" function cannot be advented only by

using a TL-600S and a HF-600S, "Automatic Access to Paging from Handset Substation" function cannot be adopted only by programming "Single Digit Dialing" at the station. It also requires the programming for Function Code 54 at No. 200 Station.

(4) A call to Master Station from Handset or Hands-free/ Handset Substation

"Master/Sub Relationship (Function Code 61)" can be programmed into Handset Substation TL-600S or Hands-free/Handset Substation HF-600S etc., where you can call the relative Master Station by a single touch of the dial \Box , or by picking up the Handset.

In activating a mode with Hands-free/Handset Substation HF-600S by picking up the Handset, "Privacy" switch on the Station is to be "ON" position.

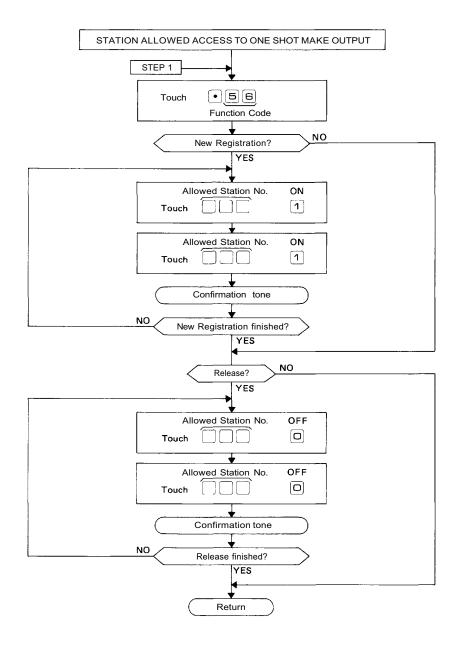
(5) Call by Dialing & Picking up the Handset

	Necessary Programming	Call to Master Station		PagingCall, PagingResponse or Personal Number Call	
Function		By dialing	By picking up Handset	By dialing 🔲	By picking up Handset
Turcuon		at HF-620S or HF-600S	at TL-600S or HF-600S (Privacy SW. ON)	at HF-620S or HF-600S	at TL-600S or HF-600S (Privacy SW. ON)
Single Digit Dialing *1	Single Digit Registration at Station	(0)	×	0	×
Master/sub Relationship *2	Programming at Station No. 200 (Function Code 61)	0	0	×	×
Automatic Acess to Paging Paging (or Calling) from Handset Substation	Single Digit Registration at Station Programming at Station No.200 (Function Code 54)	(0)	(0)	0	0

Note. O : Possible X : Impossible

(O) : Possible but usually Not to be used
*1 : Possible across the tie-lined exchange.
*2 : Impossible across the tie-lined exchange.

6-6 STATIONS ALLOWED ACCESS TO ONE-SHOT MAKE OUTPUT (FUNCTION CODE 56)



NOTES

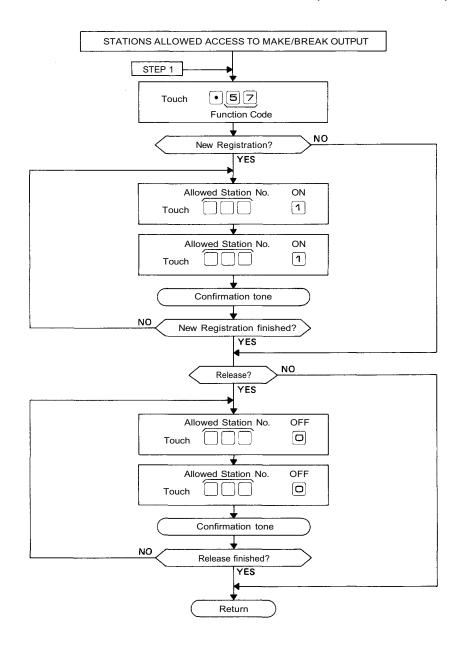
1. To allow all the stations to have this function.

Be sure to depress the PTT key steadily.

2. To release at one time the data programmed into all the stations for this function.

- Re-start at Step 1 when mis-dialing occurs. (All other registrations remain valid.)
- 4. Programming is necessary only if CP DIP switch D-1 is "ON".

6-7 STATIONS ALLOWED ACCESS TO MAKE/BREAK OUTPUT (FUNCTION CODE 57)



NOTES

1. To allow all the stations to have this function,

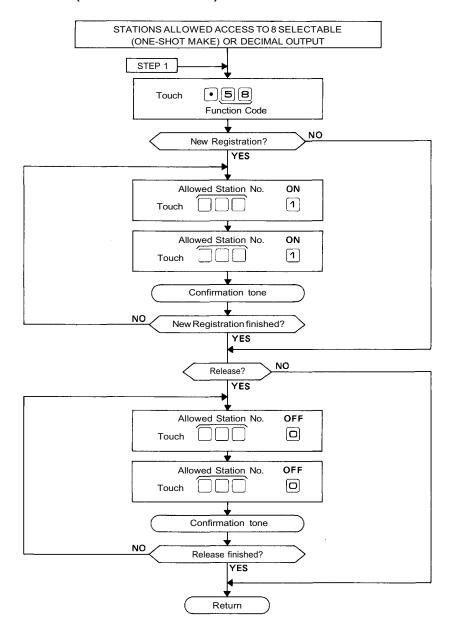
Touch Touch

Be sure to depress the PTT key steadily.

2. To release at one time the data programmed into all the stations for this function,

- Re-start at Step 1 when mis-dialing occurs. (All other registrations remain valid.)
- 4. Programming is necessary only if CP DIP switch D-1 is "ON".

6-8 STATIONS ALLOWED ACCESS TO 8 SELECTABLE (ONE-SHOT MAKE) OR DECIMAL OUTPUT (FUNCTION CODE 58)



NOTES

- 1. To allow all the stations to have this function,
 - Touch 5 8 PTT PTT ... PTT (Confirmation tone will be heard.)

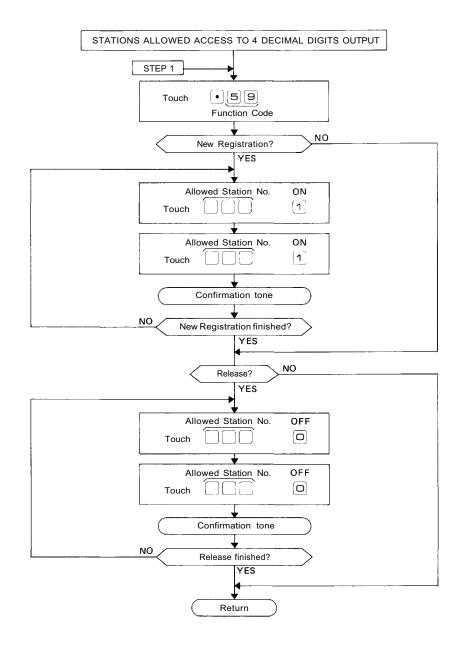
Be sure to depress the PTT key steadily.

2. To release at one time the data programmed into all the stations for this function,



- 3. Re-start at Step 1 when mis-dialing occurs. (All other registrations remain valid.)
- 4. Programming is necessary only if CP DIP switch D-1 is "ON".

6-9 STATIONS ALLOWED ACCESS TO 4 DECIMAL DIGITS OUTPUT (FUNCTION CODE 59)



NOTES

- 1. To allow all the stations to have this function.
 - Touch

 | 5 9 | PTT | PTT ... | (Confirmation tone will be heard.)

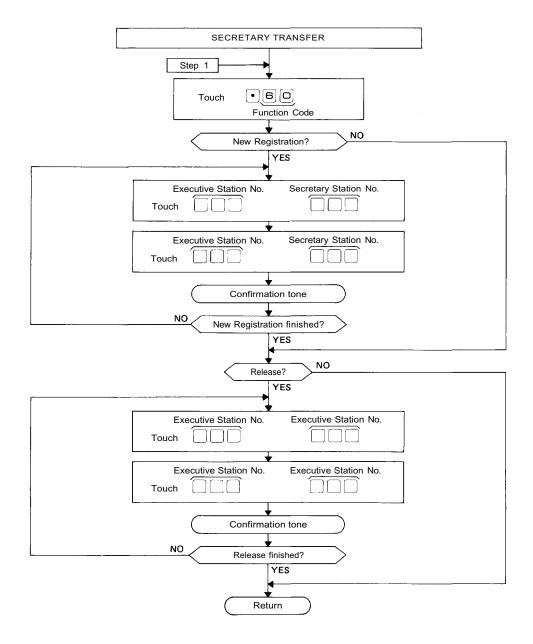
Be sure to depress the PTT key steadily.

2. To release at one time the data programmed into all the stations for this function,



- 3. Re-start at Step 1 when mis-dialing occurs. (All other registrations remain valid.)
- 4. Programming is necessary only if CP DIP switch D-1 is "ON".

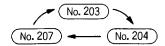
6-10 SECRETARY TRANSFER (FUNCTION CODE 60)



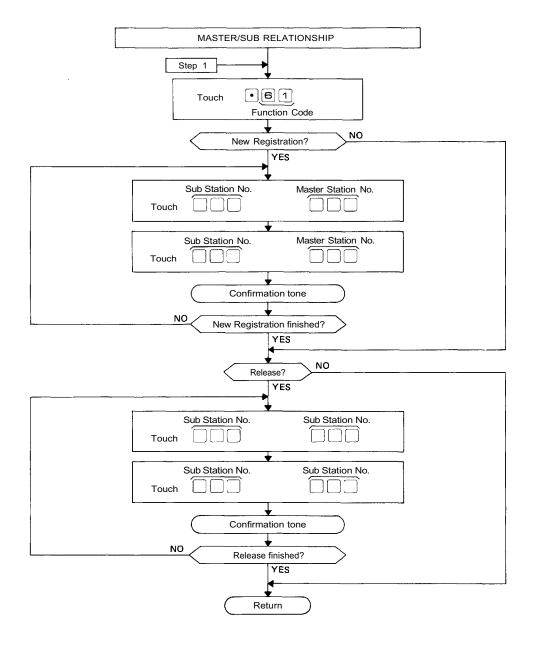
NOTES

- 1. To release at one time the data programmed into all the stations for this function.
- Re-start at Step 1 when mis-dialing occurs.
 (All other registrations remain valid.)

- 3. Switch B-5 must be "ON" to employ this function.
- Programming of Secretary Transfer can be made in a daisy chain method. For their examples, refer to the following sketch.



6-11 MASTER/SUB RELATIONSHIP (FUNCTION CODE 61)

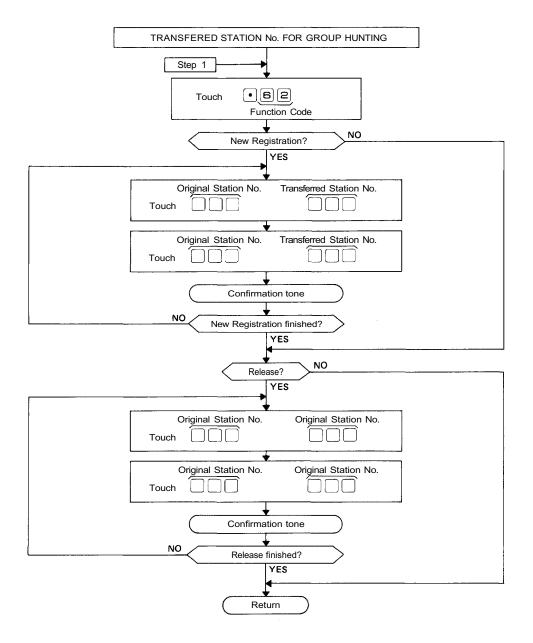


NOTES

 To release at one time the data programmed into all the stations for this function.

2. Re-start at Step 1 when mis-dialing occurs. (All other registrations remain valid.)

6-12 GROUP HUNTING (FUNCTION CODE 62)

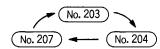


NOTES

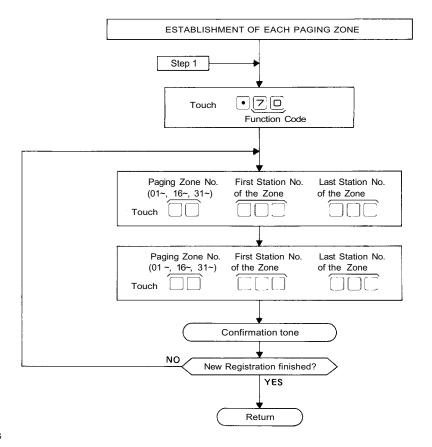
1. To release at one time the data programmed into all the stations for this function,

Re-start at Step 1 when mis-dialing occurs. (All other registrations remain valid.)

- 3. Switch B-5 must be "ON" to employ this function.
- 4. Programming of Group Hunting can be made in a daisy chain method. For their examples, refer to the following sketch.



6-13 PAGING ZONE (FUNCTION CODE 70)



NOTES

1.	To release at one time the data programmed into all the
	Zones for this function.

Touch	• 70000	(Confirmation tone will be heard.)
	10 times	,

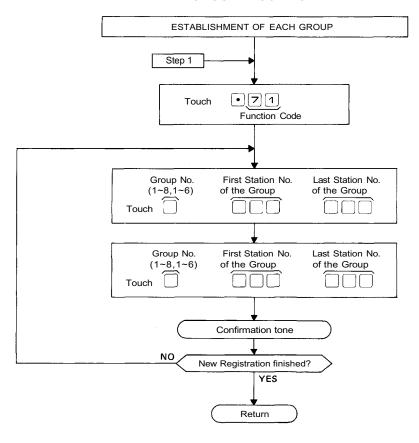
- Re-start at Step 1 when mis-dialing occurs. (All other registrations remain valid.)
- 3. Switch C-1 must be "ON" to employ this function.
- 4. 2-Digit dialing is necessary even in the case of Zone No.1 to No.9.
 - Ex. Zone No.2 0 2

- 5. In the case "Paging Response Without Zone Number" mode (0, 9) is selected by the DIP Switch SW-C-7, this registration is essential.
- In the case "Paging Priority" function is adopted by the DIP Switch SW-C-3, this registration should be made for each Paging Zone of No.01 to No.31.
- 7. Zone number series of each exchange in Tie-line system.

Exchange "A" ---- No.01~15
Exchange "B" ---- No.16~30
Exchange "C" ---- No.31~45

6-14 GROUP BLOCKING 1: ESTABLISHMENT OF EACH GROUP (FUNCTION CODE 71)

GROUP BLOCKING 1



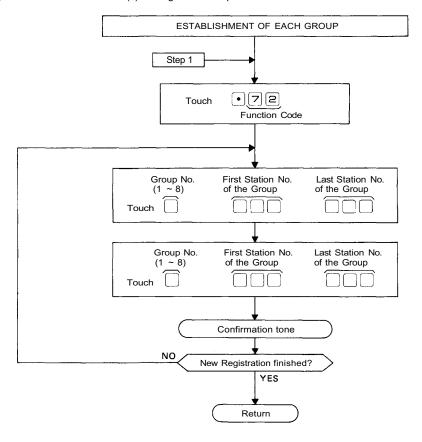
NOTES

- 1. To release at one time the data programmed into all the groups for this function,
 - Touch $\boxed{}$ $\boxed{}$ $\boxed{}$ $\boxed{}$ $\boxed{}$ $\boxed{}$ (Confirmation tone will be heard.)
- Re-start at Step 1 when mis-dialing occurs.
 (All other registrations remain valid.)

- 3. CP DIP switch D-4 must be "ON" to employ this function.
- 4. Group No.
 Single exchange No.1~8
 Tie-line exchange No.1~6

6-15 CALLING PARTY INDICATION (LAMP TYPE) (FUNCTION CODE 72)

Registration of station number(s) having indication panel.



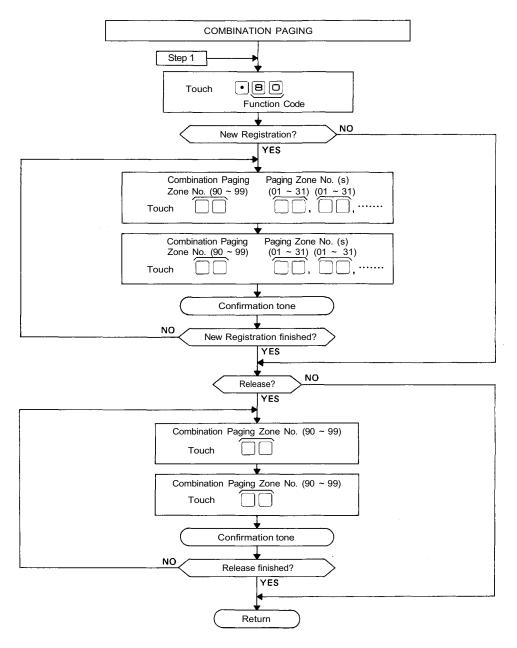
NOTES

1. To release at one time the data programmed into all the groups for this function,



Re-start at Step 1 when mis-dialing occurs. (All other registrations remain valid.) When the Indication Panel belongs to only one (1) station, you should write the station number in both "First Station No." and "Last Station No." columns.

6-16 COMBINATION PAGING (FUNCTION CODE 80)



NOTES

- To release at one time the data programmed into all the Zones for this function,
 - Touch

 B

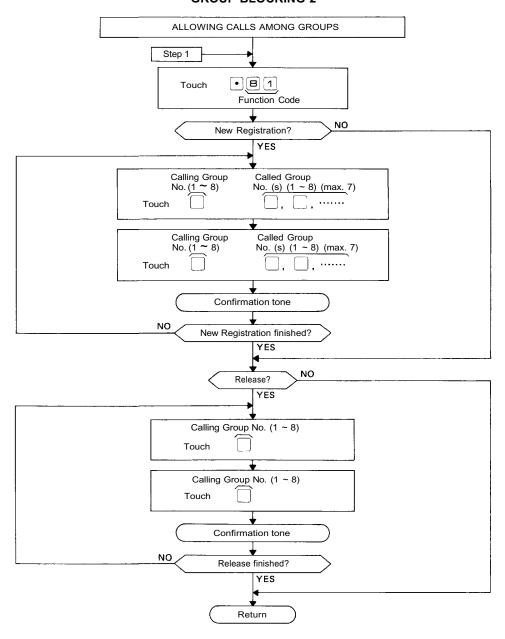
 C

 Confirmation tone will be heard.)
- Re-start at Step 1 when mis-dialing occurs. (All other registrations remain valid.)

3. CP DIP switch C-1 and C-4 must be "ON" to employ this function.

6-17 GROUP BLOCKING 2: ALLOWING CALLS AMONG GROUPS (FUNCTION CODE 81)

GROUP BLOCKING 2



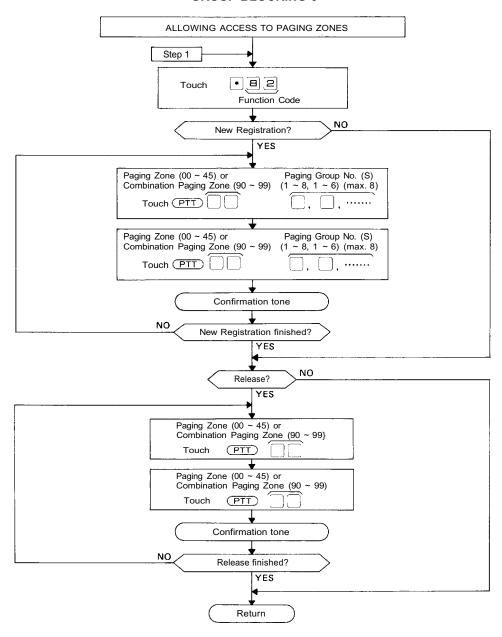
NOTES

- To release at one time the data programmed into all the groups for this function,
- 2. Re-start at Step 1 when mis-dialing occurs (All other registrations remain valid.)

- 3. Do not register a Group to call itself.
- 4. CP DIP switch D-4 must be "ON" to employ this function.

6-18 GROUP BLOCKING 3: ALLOWING GROUP ACCESS TO PAGING (FUNCTION CODE 82)

GROUP BLOCKING 3



1. To release at one time the data programmed into all the groups for this function.

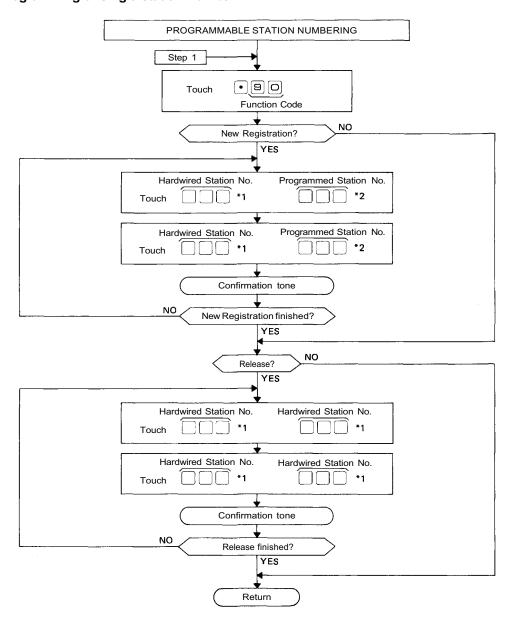
2. Re-start at Step 1 when mis-dialing occurs (All other registrations remain valid.)

NOTES

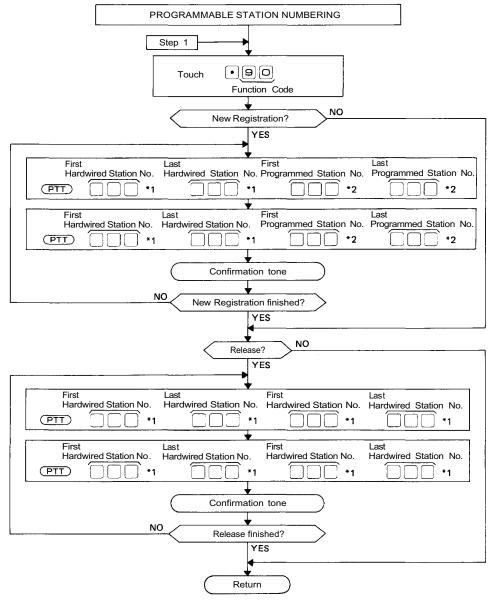
- 3. CP DIP switch D-4 must be "ON" to employ this function.
- 4. Group No.Single exchange No.1 ~ 8Tie-line exchange No.1 ~ 6

6-19 PROGRAMMABLE STATION NUMBERING (FUNCTION CODE 90)

A. Programming of Single Station Number



B. Programming of Serial Station Numbers



NOTES

- 1. To release all registered Programmed Station No.'s at one time.
 - Touch 90000....0 (Confirmation tone will be heard.)
- 2. Any one Programmed Station No. cannot be assigned to more than one Hardwired Station.
- 3. CP DIP switch D-5 must be "ON" to employ this function.

C. Restriction of programmable station numbering

Each station number can be programmable in the station number series of the exchanges A, B and C that have been determined by the function of the "Selectable First Station Number" (Page 17).

Restriction of station numbers (*1) and (*2)

<Example 1> With personal number (Standard) <Example 2> Without personal num

Example 12 With personal number (Standard		
Hardwired Station No.	Programmed Station No.	
A 200~455		
470~725	470~739	
740~995	740~999	
	Hardwired Station No. 200~455 470~725	

1)	<example 2<="" th=""><th>> Without persor</th><th>nal number</th></example>	> Without persor	nal number
	Exchange	Hardwired Station No.	Programmed Station No.
	Α	100~355	100~399
	В	400~655	400~699
	С	700~955	700~999

<example 3=""></example>		
Exchange	Hardwired Station No.	Programmed Station No.
А	200~455	200~499
В	500~755	500~799
С	800~999	800~999

7. PROGRAMMING DATA TABLE

• INITIA

	GRAMMING
Exchanç Exchanç Exchanç	station of each exchange becomes the Programming Station: ge "A"
— Initia	al Programming of the Exchange ==
1.	Place program switch on front panel of the CP "ON" Dial operation from station No. 200 (100). *
2.	Dial tone will be heard (Station No. 200 (100) becomes a programming station)
3.	Confirmation tone will be heard (Clears function group S)
4.	Confirmation tone will be heard (Clears function group A)
5.	Confirmation tone will be heard (Clears function group B)
6.	• Confirmation tone will be heard (Clears function group C) 10 times
7.	• BB··B Confirmation tone will be heard (Clears function group D)
8.	Confirmation tone will be heard (Clears function group E) 10 times
9.	Confirmation tone will be heard. Clears personal numbers, single digit dial numbers and remote numbers)
10.	Program necessary functions. (Refer to separate instructions for each function)
11.	Place program switch on front panel of the CP in "OFF" position.
12.	(Station No. 200 (100) becomes a normal station.) *
= Clea	rance of Each Function at a Time —
	Function Code 10 times Confirmation tone
== Esta	ablishment of Function on All Stations at a Time—
	Function Code PTT PTT PTT Confirmation tone

Function Table for the System

•40,	Ō, Ō, Ō	• 4 × , _	$ \begin{array}{c} \bullet \underset{x : 5, 6}{\overset{\bullet}{2}}, \\ \end{array} $
------	---------	-----------	--

Function Group	Function	Function code	Registered data	Note of Registration	Initial programming
	Numbering schedules of tie-line system	40	A 00	Select the head number of stations	A/B/C=
			В 00	followings: (SW-E-7 OFF) _100, 200, 300, 400, 500, 600, 700, 200/500/800	200/500/800
			C 00	800 or 900	(SW-E-7 ON)
S	Selection of Calling Tone	41	<u> </u>	0: Without Calling Tone 1: Single tone (0.2 sec.) 2: Calling tone (0.3 sec.)	1: Calling Tone (0.3 sec.)
5	Selection of Paging Pre-announcement Tone	42		O: Without Paging Pre-announcement Tone 1: Paging Pre-announcement Tone (1 sec.) 2: Paging Pre-announcement Tone (2 sec.)	2: Paging Pre-announcement Tone (2 sec.)
	Time-out of conversation	45		00: Without Time-out function 01 ~ 99: Length limited (min.)	00: Without Time-out
	Time-out of Paging call	46		00: Without Time-out function 01 ~ 99: Length limited (min.)	00: Without Time-out

Hardwired Station No.

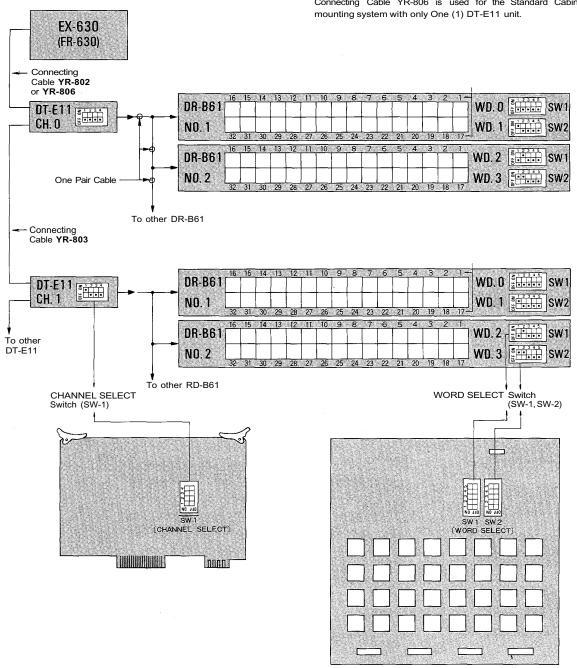
PART 3. FUNCTION SELECTION FOR DATA TRANSMITTING AND RECEIVING UNITS

8. SETTING OF CHANNEL SELECT SWITCH OF TRANSMITTING UNIT (DT-E11) AND WORD SELECT SWITCH OF RECEIVING UNIT (DR-B61)

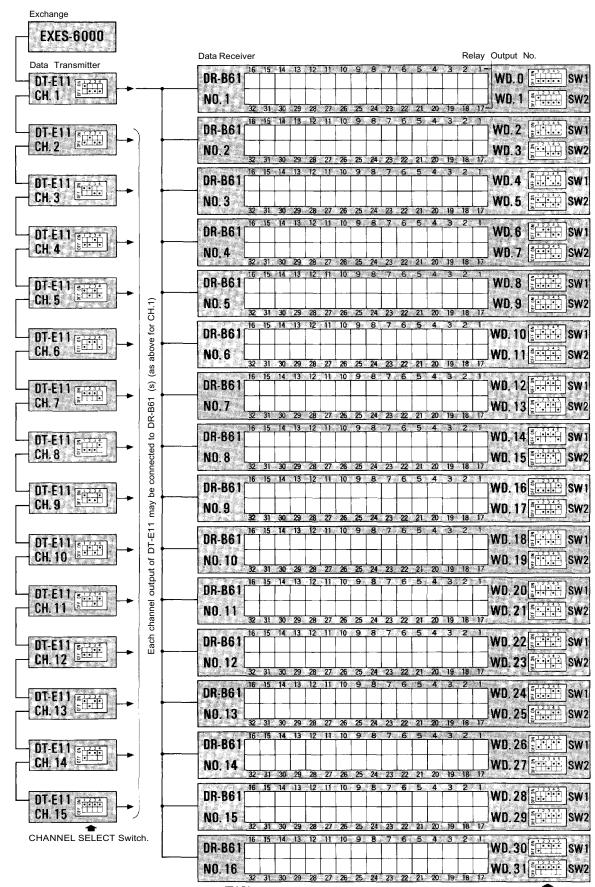
NOTE

- Connect the DT-E11 and DR-B61 to Exchange correctly. (Refer to operation manuals of DT-E11 and DR-B61).
- Set the function select switches (DIP SWITCH) on CP-64 correctly and be sure to enter initial programming and function registration at programming station No.200.
- Remove the front panel of Data Transmitting Unit (DT-E11) and take out the printed circuit board. Then set the channel select switches located on the printed circuit board, according to the
- necessary functions such as IN/OUT Annunciation, Calling Party Indication etc, and replace in the Unit.
- (Refer to 12. Explanation of Data Transmitting Unit Output Data, Page 48).
- 4. The DT-E11 sends out 512 bit data (16 bit x 32 words) to control relays on Data Receiving Unit (DR-B61). Therefore set the two word select switches on DR-B61, according to necessary output mode. SW-1 is for Relay No.1 to No.16 and SW-2 is for Relay No.17 to No.32. See Page 51 for details.
- (Refer to Explanation of Date Receiving Unit Output Channels.)
- 5. Connecting Cable YR-802 is used for the Rack mounting system.

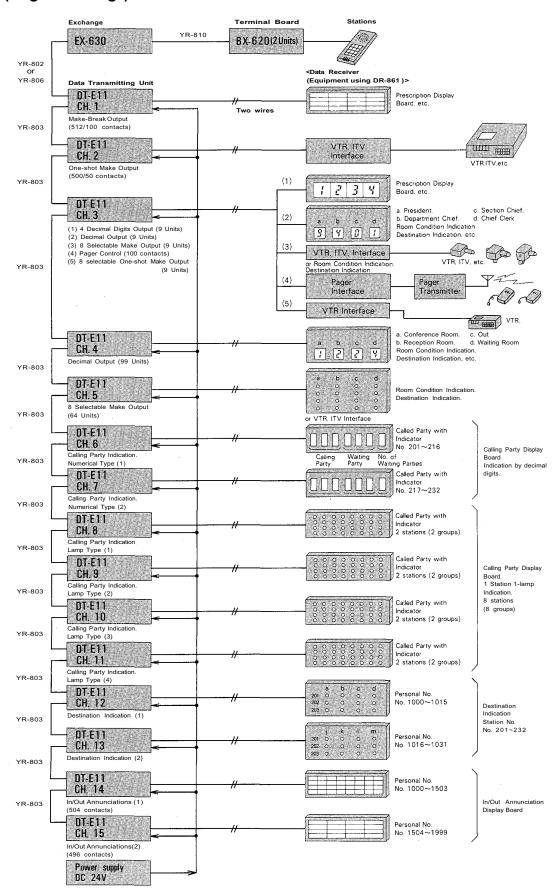
 Connecting Cable YR-806 is used for the Standard Cabinet mounting system with only One (1) DT-F11 unit



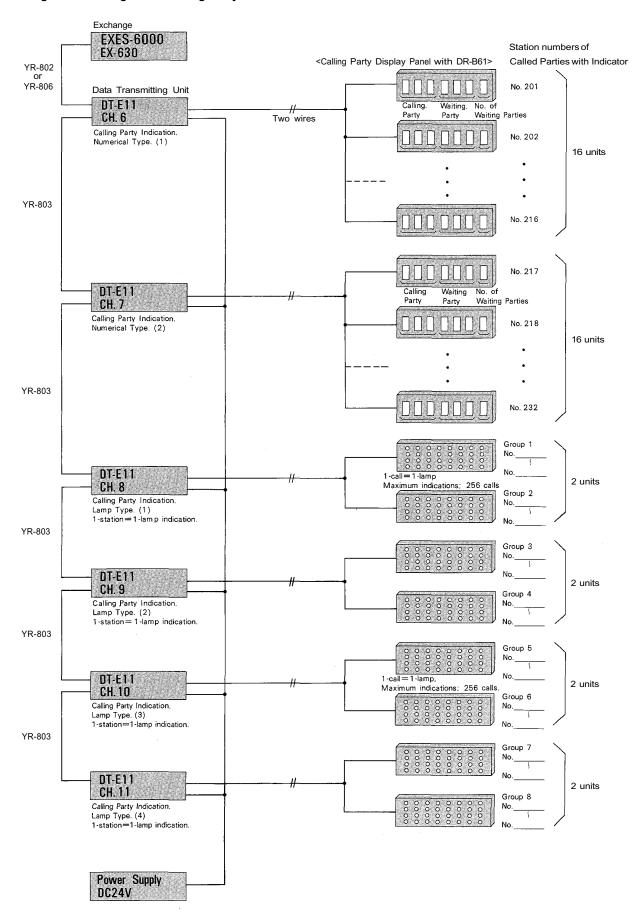
9. DIP SWITCH TABLE FOR DATA TRANSMITTING AND RECEIVING UNITS



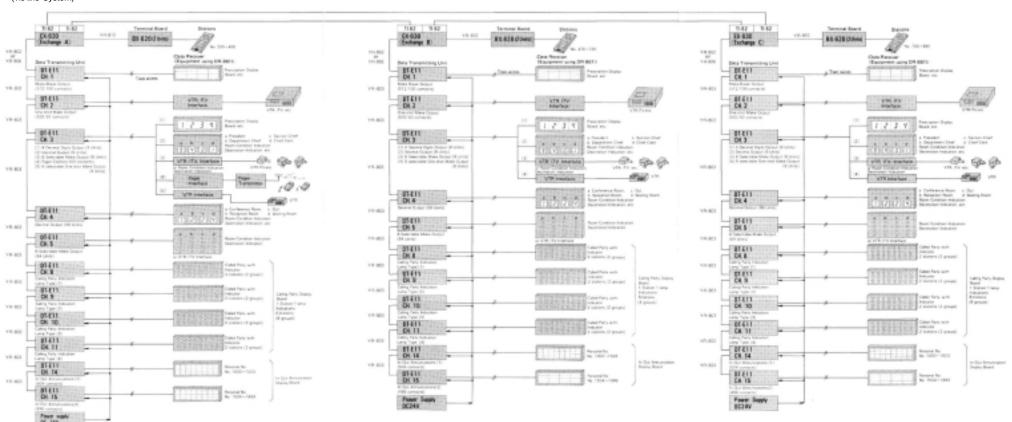
10. SYSTEM DIAGRAM OF DATA TRANSMITTING AND RECEIVING UNITS (Single Exchange)



Enlarged Block Diagram of Calling Party Indication



11. SYSTEM DIAGRAM OF DATA TRANSMITTING AND RECEIVING UNITS (Tie-line System)



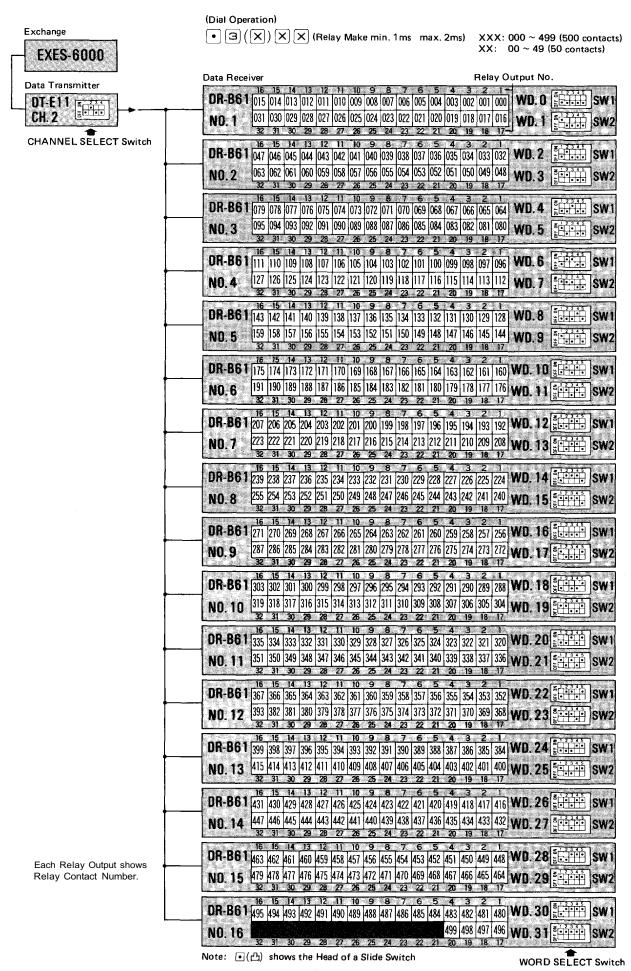
12. EXPLANATION OF DATA TRANSMITTING UNIT OUTPUT CHANNELS

CHANNEL SELECTION	FUNCTIONS	DESCRIPTION	APPLICATION
DT-E11 (1) (1) (1) (1) (1) (1) (1) (1) (1) (Make/Break Output (512/100 contacts)	Make/Break contacts can be available at any Master station.	Door Remote IN/OUT Annunciation
DT-E11	One-shot Make Output (500/50 contacts)	One-shot make contacts can be available at any Master station.	ITV camera select VTR control
	(1) 4 Decimal digits output (9 units)	Indicate by 7 segments LEDs.	Prescription annunciation
	(2) Decimal Output (9 units)	10 Selectable Decimal Outputs are available with 7 segments LEDs.	Room condition indication
DT-E11	(3) 8 Selectable Make Output. (9 units)	One contact out of 8 selectable make outputs is obtained. "Clear" operation makes all 8 relays break.	Destination indication
	(4) Pager Control Output (100 pagers)	Make output (100 contacts) is available for pager control.	• Pager
	(5) 8 Selectable One-shot Make Output (9 unit)	One contact out of 8 selectable make outputs is obtained for about 1 or 2 seconds.	VTR control
DT-E11 CH. 4	Decimal Output (99 units)	10 Selectable Decimal Outputs are available with 7 segments LEDs.	Room condition indication Destination indication
DT-E11	8 selectable make Output (64 units)	One contact out of 8 selectable make outputs is obtained. "Clear" operation makes all 8 relays break.	Room condition indication Destination indication
DT-E11 CH. 6	Calling Party Indication Numerical-type (1)	When a station with a Display Board is called, calling party number is	The number of called stations are No.201~No.216.
DT-E11	Calling Party Indication Numerical-type (2)	indicated until the conversation is over and also when the called station is busy or in privary.	The number of called stations are No.217~No.232.
DT-E11	Calling Party Indication (One Station; One Lamp) (1)		The group number of called station(s). No. 1~2
DT-E11	Calling Party Indication (One Station; One Lamp) (2)	10 Selectable Decimal Outputs are available with 7 segments LEDs. One contact out of 8 selectable make outputs is obtained. "Clear" operation makes all 8 relays break. When a station with a Display Board is called, calling party number is indicated until the conversation is over and also when the called station is busy or in privary. Max. 256 Calling station numbers can be indicated when designated called station with Display Board is called. The numbers of called stations having an indication panel can be programmed at No.200 station. When a person makes his own Personal Number Programming at the station, the station number at which	The group number of called station(s). No.3~4
DT-E11	Calling Party Indication (One Station; One Lamp) (3)		The group number of called station(s). No.5~6
DT-E11 (1) CH. 11	Calling Party Indication (One Station; One Lamp) (4)		The group number of called station(s). No.5~6
DT-E11 CH. 12	Destination Indication (1)	When a person makes his own Personal Number Programming at the	Personal number No.1000~1015
DT-E11 CH. 13	(9 units) (4) Pager Control Output (100 pagers) (5) 8 Selectable One-shot Make Output (9 unit) Decimal Output (99 units) 8 selectable make Output (64 units) Calling Party Indication Numerical-type (1) Calling Party Indication (One Station; One Lamp) (1) Calling Party Indication (One Station; One Lamp) (2) Calling Party Indication (One Station; One Lamp) (3) Calling Party Indication (One Station; One Lamp) (4) Calling Party Indication (One Station; One Lamp) (4) Destination (One Station; One Lamp) (4) Destination (1) In/Out Annunciation (1)	station, the station number at which the registration was made can be indicated by the lamp.	Personal number No.1016~1031
DT-E11 CH. 14	In/Out Annunciation (1)	Personal in and out registration can be accomplished at any Master	Personal number No.1000~1503 (504 persons)
DT-E11	In/Out Annunciation (2)	station by using personal numbers Max. 1000 IN/OUT annunciations may be done.	Personal number No.1504~1999 (496 persons)

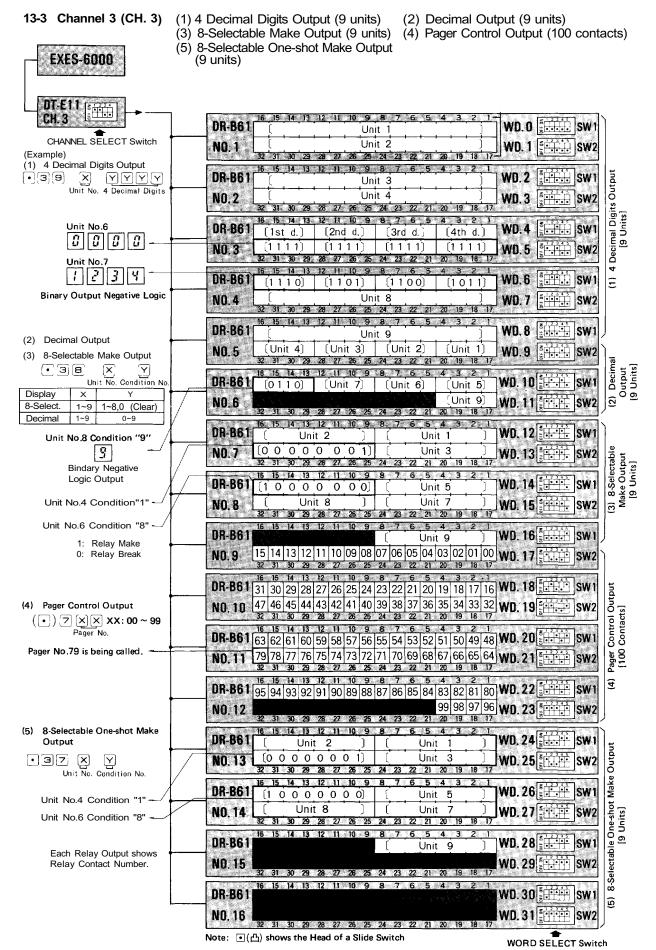
13. EXPLANATION OF DATA RECEIVING UNIT OUTPUT DATA

13-1 Channel 1 (CH. 1) Make/Break Output

1 Channel 1 (CH. 1) Ma	•	
Exchange	(Dial Operation) (Dial Operation) (Relay Make) XXX: 000 ~ 5 XX: 00 ~ 9	
EXES-6000	• 3 6 (X)XX (Relay Break)	9 (100 contacts)
Data Transmitter	Data Receiver	Relay Output No.
DT-E11 (81-23-1) CH. 1	DR-B61 015 014 013 012 011 010 009 008 007 006 005 004 003 00	2 001 000 WD. 0 . SW
	NO. 1 031 030 029 028 027 026 025 024 023 022 021 020 019 01	8 017 016 WD. 1 = 12 3 4 5 SW
CHANNEL SELECT Switch	DR-B61 16 15 14 13 12 11 10 9 8 7 6 5 4 3	2 1 4 033 032 WD. 2 E 345 E 12345
Ī	NO. 2	0 049 048 9 18 17 WD. 3
	DR-B6 1 079 078 077 076 075 074 073 072 071 070 069 068 067 068	2 1 [-12345]
-	NO 3 095 094 093 092 091 090 089 088 087 086 085 084 083 08	
, , , , , , , , , , , , , , , , , , ,	32 31 30 29 28 27 26 25 24 23 22 21 20 11 16 15 14 13 12 11 10 9 8 7 6 5 4 3	9 18 17
_	DR-B61 1111 110 109 108 107 106 105 104 103 102 101 100 099 03	
	32 31 30 29 28 27 25 25 24 23 22 21 20 1	
	DR-B61 16 15 14 13 12 11 10 9 8 7 6 5 4 3 12 13 13 13 13 13 13 13 13 13 13 13 13 13	
	NO. 5	6 145 144 WD. 9 (3345) SW
	OR-B61 16 15 14 13 12 11 10 9 8 7 6 5 4 13 16 165 164 163 166 165 164 163 166 165 164 163 166 165 164 163 166 165 164 163 166 165 164 163 166 165 164 163 166 165 164 163 166 165 164 165 164 165 164 165 164 165 164 165 164 165 164 165 164 165 165 164 165	2 1 2 161 160 WD. 10 5 1 2 3 4 5 SW
	NO. 6 191 190 189 188 187 186 185 184 183 182 181 180 179 17	8 177 176 WD. 1 1 Filit SW
	16 15 14 13 12 11 10 9 8 7 6 5 4 3	9 18 17 1 2 1 1 2 1 5 1 2 3 4 5 CM
	NO. 7 203 222 221 220 219 218 217 216 215 214 213 212 211 21	4 193 192 W.D. 1.2
	52 51 30 29 26 27 26 23 24 23 22 21 20 11	2 1
	DR-B6 1 239 238 237 236 235 234 233 232 231 230 229 228 227 22	6 225 224 WD. 14 5 5 5 SW
	NO. 8 255 254 253 252 251 250 249 248 247 246 245 244 243 24 32 31 30 23 28 27 26 25 24 23 22 21 20 1	2 241 240 WD. 15 SW
	DR-B61 271 270 269 268 267 266 265 264 263 262 261 260 259 25	8 257 256 WD. 16 5 3 4 5 SW
	NO. 9 287 286 285 284 283 282 281 280 279 278 277 276 275 27	4 273 272 WD. 17 (SW) SW
		2 1 0 289 288 WD. 18 (100) SW
<u> </u>	NO 10 319 318 317 316 315 314 313 312 311 310 309 308 307 30	6 305 304 WD 19 3 3 4 5 SW
	DR-B61 335 334 333 332 331 330 29 28 27 26 25 24 23 22 21 20 19 30 32 32 32 32 32 32 32 32 32 32 32 32 32	5 (O 1/
	NO. 11 351 350 349 348 347 346 345 344 343 342 341 340 339 33	2 321 320 W.D. 20 gust of SW 8 337 336 W.D. 21 5 1 SW
	32 31 30 29 28 27 26 25 24 23 22 21 20 1	9 18 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18
	DK-B6 367 366 365 364 363 362 361 360 359 358 357 356 355 35	4 353 352 WD. 22 5 5 5 SW
		3 18 17
	DR-B61 399 398 397 396 395 394 393 392 391 390 389 388 387 38	2 1 6 385 384 WD. 24 5 345 SW
	NO. 13 415 414 413 412 411 410 409 408 407 406 405 404 403 40	2 401 400 WD. 25 3 4 5 SW
	DR-B61 431 430 429 428 427 426 425 424 423 422 421 420 419 41	2 1 WD. 26 1 3 5 SW
	NO. 14 447 446 445 444 443 442 441 440 439 438 437 436 435 43	4 433 432 WD. 27 500 SW
	32 31 30 29 28 27 26 25 24 23 22 21 20 19	3 18 1/
Each Relay Output shows Relay Contact Number.	DR-B6 1 463 462 461 460 459 458 457 456 455 454 453 452 451 45 NO. 15 479 478 477 476 475 474 473 472 471 470 469 468 467 46	
. total Contact Number.	[32 31 30 29 28 27 26 25 24 23 22 21 20 10 10 16 15 14 13 12 11 10 9 8 7 6 5 4 3	
	DR-B61 495 494 493 492 491 490 489 488 487 486 485 484 483 48	
	NO. 16 511 510 509 508 507 506 505 504 503 502 501 500 499 49 32 31 30 29 28 27 26 25 24 23 22 21 20 15	3 18 17 SW
	Note: •(凸) shows the Head of a Slide Switch	WORD SELECT SW



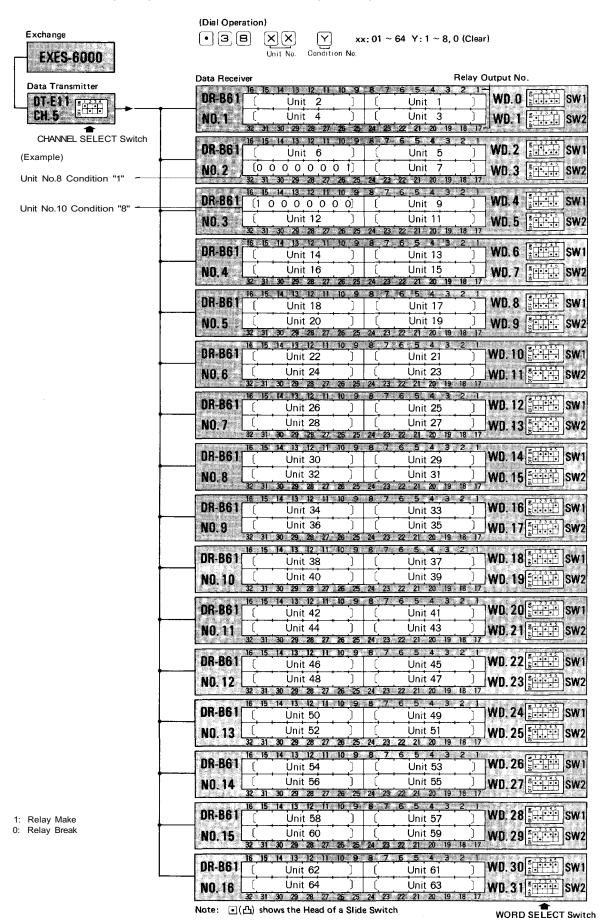
— 50 —



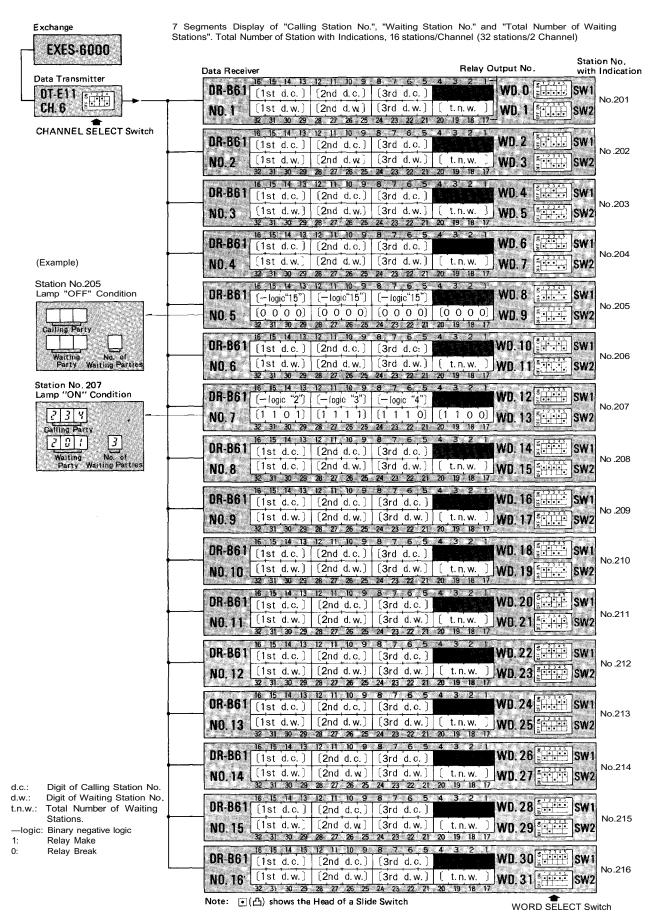
13-4 Channel 4 (CH. 4) Decimal Output (99 Units)

Exchange EXES-6000	(Dial Operation) The state of	
LALS-UODO	Data Receiver Relay Output No.	
Data Transmitter	DR-B61 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 WD.0 5 5 5 5 5 5 5 5 5	SW1
OT-E11	NO.1 (Unit 8) (Unit 7) (Unit 6) (Unit 5) WD.1	
CHANNEL SELECT Switch	32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 —	
	DR-B61 (Unit 12) (Unit 11) (Unit 10) (Unit 9) WD.2	SW 1
	NO. 2 [Unit 16] [Unit 15] [Unit 14] [Unit 13] WO 3 []	3W2
(Example)	DR-B61 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 WD. 4 3 12 11 19 (Unit 18) (Unit 17) WD. 4 3 3 3 3 3 3 3 3 3	SW 1
Unit No.24 Condition "3"		SW2
3 -	32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17	
Binary Negative Logic "3"	DR-B61 (Unit 28) (Unit 27) (Unit 26) (Unit 25) WD.6	SWI
	NO. 4 [Unit 32] [Unit 31] [Unit 30] [Unit 29] WD. 7	SW2
	16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	
 		SW2
	32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17	
Light No 40 Condition 101	DR-B61 (Unit 44) (Unit 43) (Unit 42) (Unit 41) WD. 10	SW 1
Unit No.48 Condition"0"	NO.6 (1 1 1 1) (Unit 47) (Unit 46) (Unit 45) WD. 11	SW2
	16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 g12345	
Binary Negative Logic "0"	DR-B61 (Unit 52) (Unit 51) (Unit 50) (Unit 49) WD. 12 日本 State Stat	
	NO.7 [Unit 56] [Unit 55] [Unit 54] [Unit 53] WD. 13	5W 2
	DR-B61 [Unit 60] (Unit 59] (Unit 58] (Unit 57] WD. 14	3 W 1
	NO. 8 (Unit 64) (Unit 63) (Unit 62) (Unit 61) WD 15	
	32 31 30 29 28 27 25 25 24 23 22 21 20 19 18 17	
	DR-861 (Unit 68) (Unit 67) (Unit 66) (Unit 65) WD.16	
	NO.9 [Unit 72] [Unit 71] [Unit 70] [Unit 69] WD. 17	\$₩2
	OR-B61 (Unit 76) (Unit 75) (Unit 74) (Unit 73) WD. 18	SW1
<u> </u>	NO. 10 (Unit 80) (Unit 79) (Unit 78) (Unit 77) WD. 19	
	32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17	4116
	OR-B61 (Unit 84) (Unit 83) (Unit 82) (Unit 81) WD.20 : S	SW1
	NO. 11 Unit 88 Unit 87 Unit 86 Unit 85 WD. 21	SW2
	16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 4	esara
-	NO. 12 Unit 96 Unit 95 Unit 94 Unit 93 WD 22	Seme
	32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17	
	DR-861 Unit 99 Unit 98 Unit 97 WD. 24	SW 1
	NO. 13 WD. 25	SW2
	16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1	
 	DR-861 WD 26 (1) WD 26 (1)	
	NO. 14 WD. 27 5 WD. 2	>YV Z
1: Relay Make	DR-B61 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 WD 28 5 3 3 5 5	SW 1
0: Relay Break	NO.15 WD 29 €€€€€€ S	E 0.4
	32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17	
	DR-B61 WD 30	SW1
	NO. 16 WD. 31 5 WD. 3	SW2
	Note: (凸) shows the Head of a Slide Switch WORD SELECT	Swit

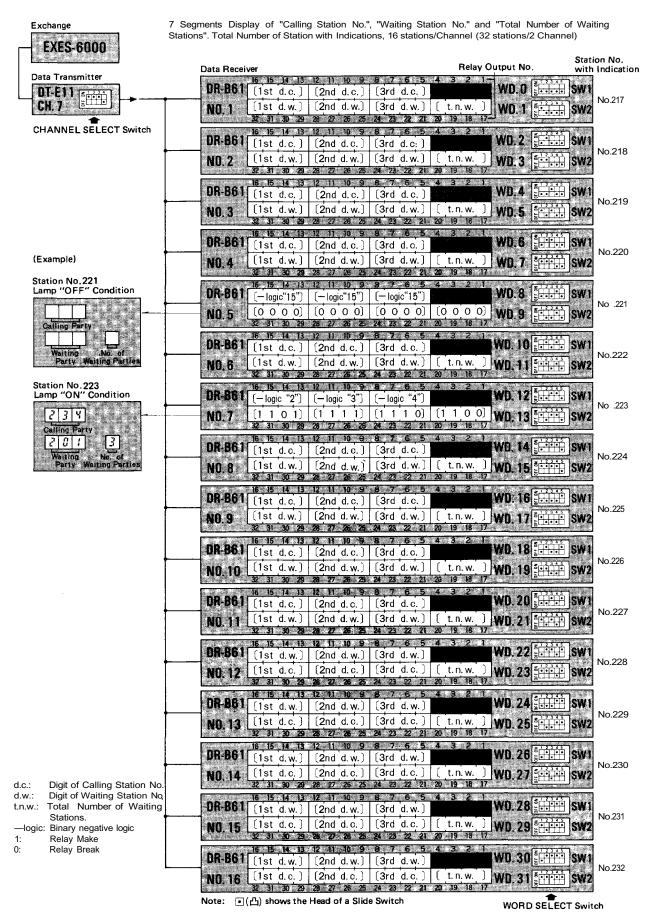
13-5 Channel 5 (CH. 5) 8-Selectable Make Output (64 Units)



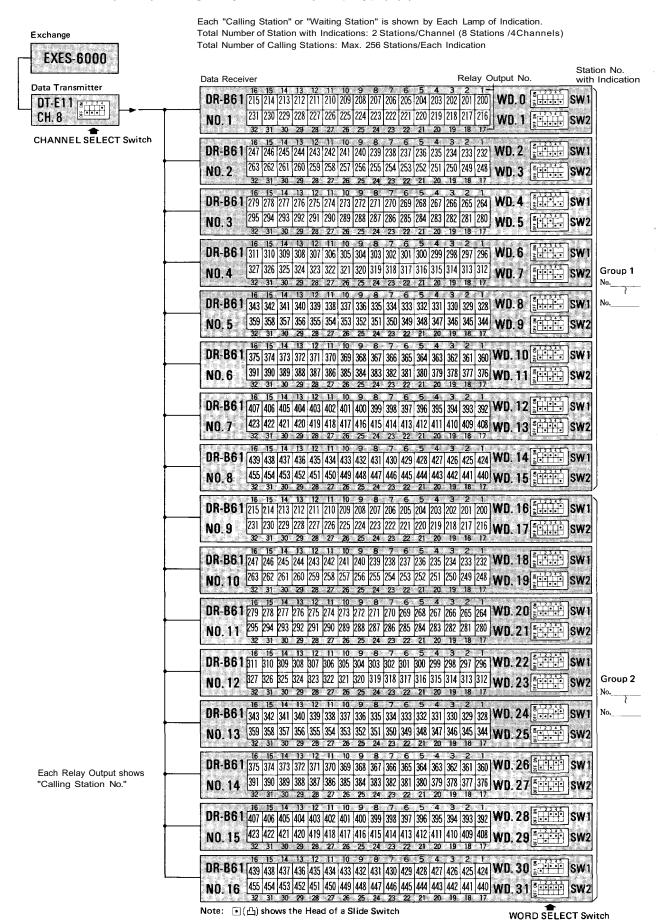
13-6 Channel 6 (CH. 6) Calling Party Indication Numerical Type (1)



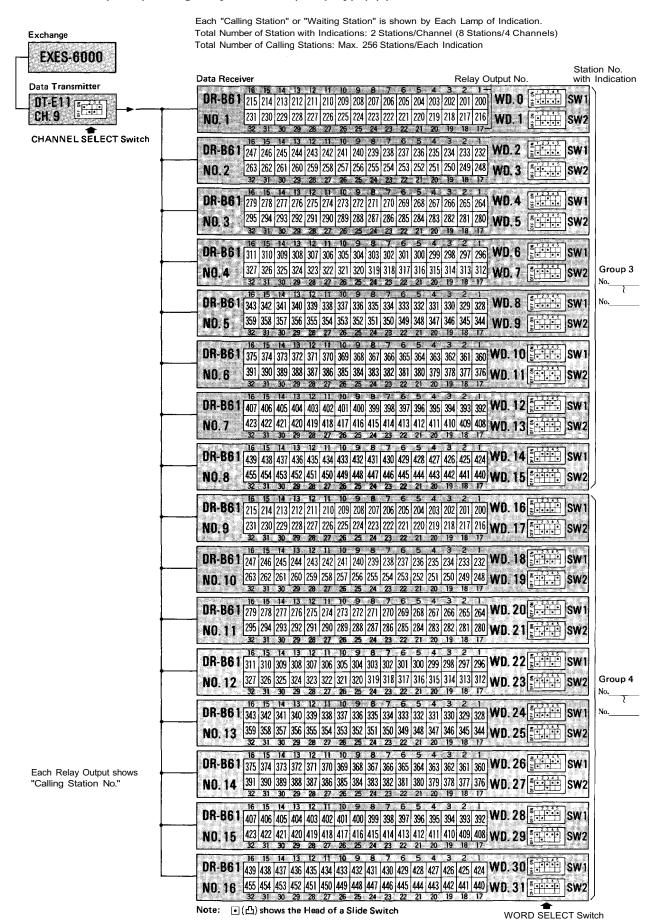
13-7 Channel 7 (CH. 7) Calling Party Indication Numerical Type (2)



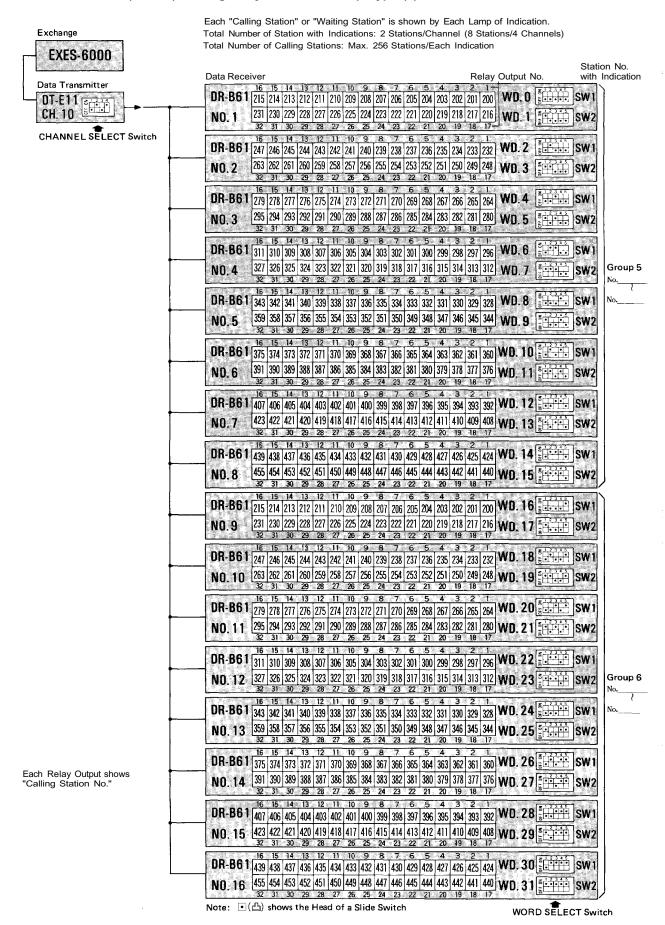
13-8 Channel 8 (CH. 8) Calling Party Indication (Lamp Type) (1)



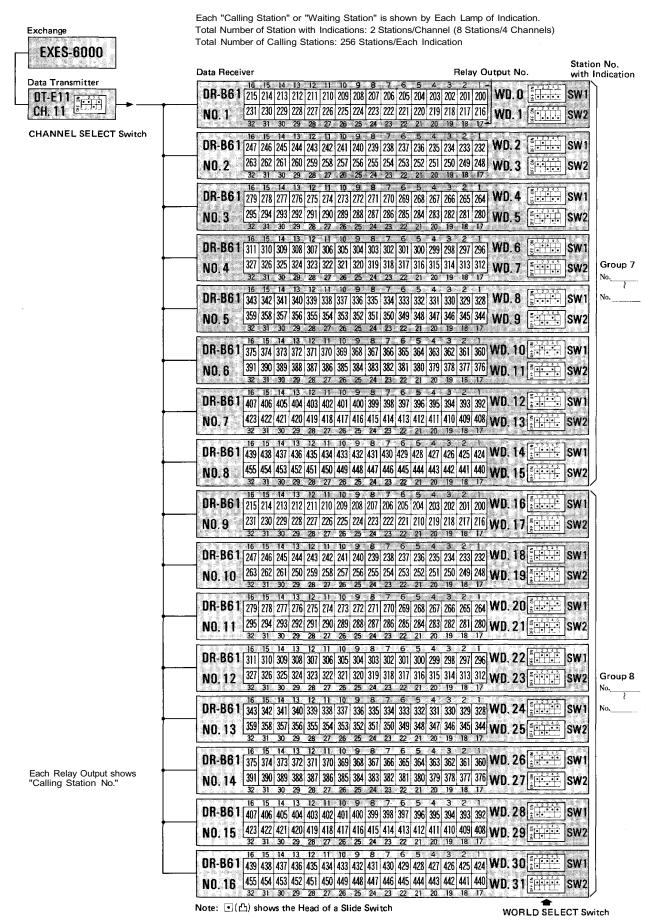
13-9 Channel 9 (CH. 9) Calling Party Indication (Lamp Type) (2)



13-10 Channel 10 (CH. 10) Calling Party Indication Lamp Type (3)



13-11 Channel 11 (CH. 11) Calling Party Indication Lamp Type (4)



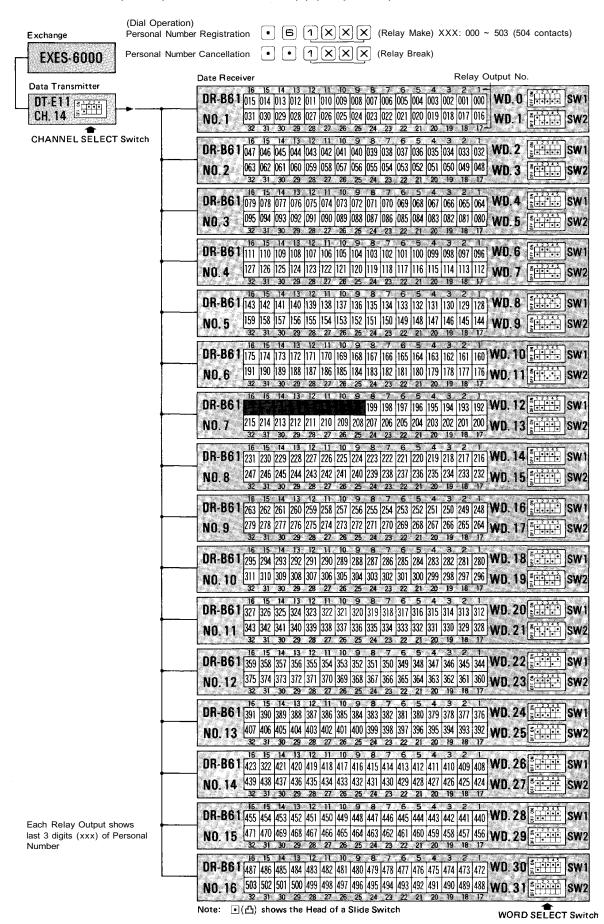
13-12 Channel 12 (CH. 12) Destination Indication (1) (Dial Operation) • Registration of Personal Number XX:00~31 • Cancellation of Personal Number • 10 XX Exchange Personal Number: Max. 32 persons (No.1000~1031) EXES-6000 Station Number which shows Person's Destination: Max. 32 stations (No.201~232) Personal Relay Output No. Data Receiver Number Date Transmitter DR-B61 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 0 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 DT-E11 | 21214 | CH, 12 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 1 No.1000 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17-CHANNEL SELECT Switch 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 DR-B6 1 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 2 No.1001 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 3 NO.2 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 DR-B61 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 4 SW1 No.1002 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD 5 SW2 32 31 30 29 28 27 26 25 24 23 22 21 20 19 8 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 DR-B6 1 216 215 214 213 212 211 210 209 208 297 206 205 204 203 202 201 WD. 6 No.1003 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 7 5 SW2 NO.4 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 DR-B61 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD, 8 SW1 No.1004 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD 9 SW2 NO.5 32 31 30 29 28 -27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 OR-B6 1 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WO. 10 5 3 5W1 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 11 SW2 No.1005 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 EXAMPLE <u>16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1</u> Indication Panel-lamp on DR-B6 1 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 12 5 SW1 A person "No.1006" registers his No.1006 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 13 Personal Number at the station "No.216", then the Relay contact 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 "No.216" turns into "Make". 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 I DR-B61 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 14 SW1 Each Relay Output shows "Station No. of Person's Destina-No.1007 NO. 8 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 1 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 217 218 219 DR-B61 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 16 SW1 No.1008 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD 17 5 11 SW2 1007 1008 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 DR-B6 1 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 18 3 SW 1 No.1009 NO. 10 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 19 32345 SW2 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 No.1010 NO. 11 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 21 50 10 SW2 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 DR-B61 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 22 No.1011 NO. 12 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 23 5466 SW2 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 DR-B61 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 24 : SW1 No.1012 NO. 13 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 25 34 35 SW2 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 Each Relay Output shows No.1013 NO. 14 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 27 "Station No. of 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 Person's Destination" 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 DR-B61 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 28 3 SW1 NO. 15 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 29 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 WD. 29 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 No.1014 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 DR-B61 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 30 30 SW1 No.1015 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 1 Note: (凸) shows the Head of a Slide Switch

WORD SELECT Switch

13-13 Channel 13 (CH. 13) Destination Indication (2) (Dial Operation) Registration of Personal Number XX:00~31 • Cancellation of Personal Number • 1 0 x x Exchange Personal Number: Max. 32 persons (No.1000~1031) **EXES-6000** Station Number which shows Person's Destination: Max. 32 stations (No.201~232) Personal Relay Output No. Data Receiver Date Transmitter Number DR-B61 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 0 OT-E11 No.1016 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 1 5 3 3 5 W2 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 CHANNEL SELECT Switch DR-B61 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 2 No.1017 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 3 NO.2 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 DR-B6 1 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 4 SW1 No.1018 ∰.∵... SW2 NO.3 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 1 DR-B61 216 215 214 213 212 211 210 209 208 297 206 205 204 203 202 201 WD. 6 SW1 No.1019 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 7 FIRST SW2 NO.4 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 DR-B61 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 8 No.1020 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 9 \$\frac{1}{2} \frac{1}{2} \frac{1 NO 5 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 DR-B61 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 10 \$\frac{16}{2}\$ 15 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 10 \$\frac{1}{2}\$ 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 11 \$ SW2 No.1021 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 **EXAMPLE** 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 DR-B6 1 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 12 3 3 5 5 5 5 5 5 5 5 5 Indication Panel-lamp on A person "No.1022" registers his 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD 13 SW2 No.1022 Personal Number at the station 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 "No.216", then the Relay contact DR-B61 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 14 E-11 SW1 "No.216" turns into "Make". Each Relay Output shows "Station No. of Person's Destina-232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 15 SW2 No.1023 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 217 218 219 DR-861 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 16 5 SW 1 1022 **(41)** 1023 1024 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 17 5 3 SW2 No.1024 NO. 9 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 13 DR-B61 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 18 3 12 1 SW1 No.1025 NO. 10 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 19 31 SW2 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 DR-B61 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 20 5 5W1 No.1026 NO. 11 | 232 | 231 | 230 | 229 | 228 | 227 | 226 | 225 | 224 | 223 | 222 | 221 | 220 | 219 | 218 | 217 | WD. 21 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 DR-B61 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 22 \$\frac{5}{2}\frac{1}{ No.1027 NO. 12 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WO. 23 5 SW2 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 DR-B61 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 24 5 121 SW1 No.1028 NO. 13 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 25 SW2 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 DR-B6 1 216 215 214 213 212 211 210 209 208 207 206 205 204 203 202 201 WD. 26 Each Relay Output shows No.1029 NO. 14 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 27 5 33 SW2 "Station No. of 32 31 30 29 28 27 26 25 24 23 22 21 20 19 Person's Destination" No.1030 NO. 15 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 wp. 29 Sw2 32 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 No.1031 NO. 16 232 231 230 229 228 227 226 225 224 223 222 221 220 219 218 217 WD. 31 5 3 5 SW2 12 31 30 29 28 27 26 25 24 23 22 21 20 19 18 17 Note: (凸) shows the Head of a Slide Switch

WORD SELECT Switch

13-14 Channel 14 (CH. 14) In/Out Annunciation (1) (504 persons)



13-15 Channel 15 (CH. 15) In/Out Annunciation (2) (496 persons)

