

## TOA EXES-6000 INTERCOM SYSTEM

Central Processing Unit for Tie-line System

$$
\frac{\text { CP-63 }}{} \text { 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-63 to your TOA INTERCOM SYSTEM EXES6000, 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) I Installation Handbook of Model EX-610/620 EXCHANGE" or "(4) Operation Manual of Data Transmitting and Receiving Units", etc.

This "Installation Handbook of CP-63" deals principally with (2) Selection of functions and setting up of respective equipment.
This Handbook also explains the connection method for the EXES6000 Tie-line System using the CP-63 and the TI-62 units.
There are certain minimum installation requirements to be met even through you may not need many additional functions or additonal equipment, it is still necessary to read "2. Initial CP-63 Set Up
(Page 12)". 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.


Manuals Necessary for Installation of Exchange

| SYSTEMS OF <br> EXES-6000 | REQUIRED INSTALLATION HAND BOOK |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) EX-610/620 INSTALLATION HAND BOOK OF EXCHANGE | CP-62 INSTALLATION HAND BOOK | CP-62 INITIAL CHECKING SHEET | (2) CP-63 INSTALLATION HAND BOOK | (3) <br> CP-63 INITIAL CHECKING SHEET | (4) DATA TRANSMITTING AND RECEIVING UNIT operation manual |
| (A) Normal Conversation and Paging System | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |  |  |  |
| (B) Normal Conversation and Paging System with Display and Control Functions | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |  |  | $\bigcirc$ |
| (C) Tie-line System with Normal Conversation and Paging Functions | $\bigcirc$ |  |  | $\bigcirc$ | $\bigcirc$ |  |
| (D) Tie-line System with Normal Conversation, Paging, Display and Control Functions | $\bigcirc$ |  |  | $\bigcirc$ | $\bigcirc$ | $\bigcirc$ |

## - FUNCTIONS WHICH REQUIRE ADDITIONAL UNITS

Those functions of the CP-63 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.
(For Data Transmitting and Receiving units, refer to Part 2. "Function Selection for Data Transmitting and Receiving units" Page 49.)

| Function | Additional Equipment <br> Required | Unit Model <br> Number | Remarks |
| :--- | :--- | :--- | :--- |
| Talk-Back from <br> paging speaker | Talk-Back Unit | TK-12 | Not yet available for sale. |
| Conference | Conference Unit | CL-62 | Build this unit in all exchanges connected by tie-line. It <br> is not possible to originate a conference from a station <br> connected to the exchange without the CL unit but <br> possible to participate in the conference from that <br> station. |
| External PA Paging | Paging Interface Unit | PI-62 | External PA Equipment is required. |
| Station Paging | PI-62 | 1. Wiring of "Station Paging Assignment" located at <br> 2.Cuthe back of the frame of the Exchange. <br> system. <br> Indication LM-62 jumper wire to split station paging |  |
| Control | Data Transmitting Unit | DT-E11 | The number that can be mounted on the cabinet-mount <br> type exchange is one (1). Use the connection cable <br> YR-806. <br> When more than 2 pieces are mounted, we suggest you <br> use rack-mount type exchange. For connection between <br> the exchange and the DT-E11, use the YR-802, and <br> the YR-803 for extension of the DT-E11. |
| Die-line System | Data Receiving Unit | DR-B61 | Such devices as indicator, control unit etc. can be <br> made by using this unit and 24V DC power supply. |

(For Tie-line System Including All-Call Paging and 7 Individual Zone Paging unit and one Data Transmitting unit)

Exchange EX-620 (for 128 stations)

(1) Central Processing Unit CP-63
(2) Output Control Unit OC-62
(3) Highway Control Unit HC-62
(4) Signal Generating and Distributing Unit SG-62
(5) Conference Link Unit CL-62 (In this location, DL-62 is also mountable.)
(6) Duplex Link Unit DL-62
(7) Line Modem Unit LM-62
(8A) Paging Interface Unit PI -62 (In this location, LM-62 is also mountable.) (Zone 0-7 with All-Call Paging)
(8B) Tie-line Interface Unit TI-62
(9) Perforated Panel PF-022G *
(10) Data Transmitting Unit DT-E11 (In the standard system, Perforated Panel PF-012G should come in this position.)* Junction Cable YR-806 (Cable length: 1000mm) (YR-802 (Cable length: 400 mm ) is not available.)
Note.*
The Exchange Cabinet Rack CR-610 or CR-620 includes Perforated Panels PF-012G and PF-022G.

Exchange EX-610 (for 64 stations)

(11) Power Supply Unit DS-620
(12) Power Switch
(13) AC Fuse
(14) DC Fuse
(15) Battery Fuse
(16) Exchange Cabinet Rack CR-620
(17) Exchange Frame FR-620
(18) Power Supply Unit DS-610
(19) Power Indication Lamp
(20) Battery Power Indication Lamp
(24) Buzzer Stop Switch
(22) Exchange Cabinet Rack CR-610
(23) Exchange Frame FR-610

## 1. Function of the Central Processing Unit CP-63

To make communications between exchanges possible in the EXES6000 system, the CP-63 and the Tie-line Interface Unit TI-62 are required in addition to the exchange EX-610 or the EX-620.
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-63 transmits the dial data signals to the TI-62 and instructs it to make calls to the other exchange. The CP-63 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-63.

2. Number of stations, paging zones and links

*1 The links within own exchange as well as the tie-line links are used in each tie-line communication.
*2 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
A. With personal number (Standard)

| Type of exchange | Model | Numbering for stations |  | Numbering for paging zones <br> Paging zone per exchange |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Without Paging | $\begin{aligned} & \text { With } \\ & \text { paging } \end{aligned}\left(\begin{array}{l} 7 \text { zones } \\ \text { per } \\ \text { exchange } \end{array}\right)$ |  |  |
|  |  |  |  | All call | Zone |
| Single Exchange (EX-1) <br> Exchange "A" (EX-2A/3A) | EX-610 | 200~247, 256~263 | 200~247 | 00 | 01~07 |
|  | EX-620 | 200~311, 320~327 | 200~311 |  |  |
| Exchange "B" (EX-2B/3B) | EX-610 | 470~517, 526~533 | 470~517 |  | $\begin{gathered} 08 \sim 14 \\ (16 \sim 22) \end{gathered}$ |
|  | EX-620 | 470~581, 590~597 | 470~581 |  |  |
| Exchange "C" (EX-3C) | EX-610 | 740~787, 796~803 | $740 \sim 787$ |  | $\begin{gathered} 15 \sim 21 \\ (31 \sim 37) \end{gathered}$ |
|  | EX-620 | 740~851, 860~867 | 740~851 |  |  |

B. Without personal number

| Type of exchange | Model | Numbering for stations |  | Numbering for paging zones <br> Paging zone per exchange |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Without paging | $\begin{aligned} & \text { With } \\ & \text { paging } \end{aligned}\left(\begin{array}{l} 7 \text { zones } \\ \text { per } \\ \text { exchange } \end{array}\right)$ |  |  |
|  |  |  |  | All call | Zone |
| Single Exchange (EX-1) <br> Exchange "A" (EX-2A/3A) | EX-610 | 100~147, 156~163 | 100~147 | 00 | 01~07 |
|  | EX-620 | 100~211, 220~227 | 100~211 |  |  |
| Exchange "B" (EX-2B/3B) | EX-610 | 400~447, 456~463 | 400~447 |  | $\begin{gathered} 08 \sim 14 \\ (16 \sim 22)_{*} \end{gathered}$ |
|  | EX-620 | 400~511, 520~527 | 400~511 |  |  |
| Exchange "C" (EX-3C) | EX-610 | 700~747, 756~763 | 700~747 |  | $\begin{gathered} 15 \sim 21 \\ (31 \sim 37)_{*} \end{gathered}$ |
|  | EX-620 | 700~811, 820~827 | 700~811 |  |  |

Zone No. 16 through 22 and No. 31 through 37 are employed for Paging Numbering Schedule of 45 zones with 3 exchanges established in the system using the exchanges EX-610 and/or EX-620 and EX-630 (256 stations) connected by tie-line.
4. Reduction of the number of stations and paging zones which results from the use of the Tie-line Interface Unit TI-62.

| <EX-610> |
| :--- |
| LM Station No. <br> 1 $200-207$ <br> 2 $208-215$ <br> 3 $216-223$ <br> 4 $224-231$ <br> 5 $232-239$ <br> 6 $240-247$ <br> 7 $248-255$ <br> 8 $256-263$ |

1. Mounting one (1) piece of the TI-62 decreases the number of the LM-62 (the 7th or the 15th LM-62) by one (1).
2. Unless the PI-62 is used, the system can have up to 8 more stations by placing the LM-62 in the 8th or the 16th position.
<EX-620>

| LM | Station No. | LM | Station No. |
| :---: | :---: | :---: | :---: |
| Note. <br> LM: Line Modem Unit <br> LI | $200-207$ | 9 | $264-271$ |
|  |  |  |  |
| TI : Tie-line Interface Unit |  |  |  |

## 5. Block diagram for tielined exchanges.



| $\begin{aligned} & \text { Exchange "B" } \\ & \text { (EX-2B/3B) } \end{aligned}$ | 1 $?$ 6 | 470-517 |  |
| :---: | :---: | :---: | :---: |
|  | 7 |  | TI |
|  | 8 | 526-533 | PI |



## <EX-620 Tie-line>



## 6. The relationship between the PI unit and the LM unit

<The case where the tie-line system consisting of 2 or 3 exchanges has an exchange without the PI unit>
The case where it is necessary to make the paging call from the exchange without the PI unit to the other exchange (s).

- Set "Paging" DIP switch (SW-B-4) to ON.
- You may not substitute the LM unit (LM8 or LM16) for the PI unit.
EX-610: Max. 48 stations, EX-620: Max. 112 stations

The case where the paging call is unnecessary from the exchange without the PI unit to the other exchange (s).

- Set "Paging" DIP switch (SW-B-4) to OFF
- You may substitute the LM unit (LM8 or LM16) for the PI unit. EX-610: Max. 56 stations, EX-620: Max. 120 stations

paging call is possible

paging call is impossible


## - WIRING FOR TIE-LINE CONNECTION OF THE EXCHANGES

- Each exchange can be connected by means of a cable with a diameter of 0.65 mm ( 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-610/620 is used, its terminals No. 1 and 2 are for the "R" line and No. 3 and 4 are for the "T" line.

Exchange " A "


1. Wiring for tie-line connection of 2 exchanges


Note 1. Any combination of tie-line links between exchanges " A " and " B " is possible. But, in consideration of possible increase in the number of exchanges to be connected from 2 to 3 in the future, we suggest you connect (TL) (link No. 0, 1, 2, 3) of exchange "A" to © $\left.{ }^{( }\right)$(link No. 4, 5, 6,7 ) of exchange " B ".


Note 2. Be sure to connect (TL) (link No. 0, 1, 2,3) to (TH) (link No. 4, 5, 6, 7) between the exchanges. Connection of (TH) to (T) or (T) to (T) will lead to failure of proper operation of the system.

## 3. DIP Switch selection

1. Switching arrangements of DIP switches ( $\mathrm{E}-1, \mathrm{E}-2, \mathrm{E}-3$ ) 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 "EX3C" type.
2. In the event of the tieline link not to be used, turn off its corresponding DIP switch on the TI-62 unit.

3. The Example of connection of EX-620 exchange

YR-801 must be connected to J15 for EX-620 exchange (for 128 stations), or to J7 for EX-610 exchange (for 64 station)

| EX-620 | BX-620 |
| :---: | :---: |
| J 15 | T 1 | | $\mathrm{EX}-610$ | $\mathrm{BX}-610$ |
| :---: | :---: |
| J 7 | T 1 |





The cables between the exchanges ( 4 wires $\times 4$ links)


## PART 1. OPERATING OF CP UNIT AND NO. 200 PROGRAMMING <br> 1. PRECAUTIONS FOR INSTALLATION OF CP-63

Please read following instructions carefully to ensure proper operation of the CP-63

1. Be careful about damage by static electricity as the CP-63 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-63 unit, or any other unit.
3. Always insert the CP-63 unit into the "CP" 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.
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-63 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 $\left(25^{\circ} \mathrm{C}\right)$, About 8 days $\left(40^{\circ} \mathrm{C}\right)$
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 <br> of exchange | Ambient temperature <br> of battery | Life span |
| :---: | :---: | :---: |
| $0^{\circ} \mathrm{C}$ | $10^{\circ} \mathrm{C}$ | About 5 years |
| $25^{\circ} \mathrm{C}$ | $35^{\circ} \mathrm{C}$ | About 4 years |
| $40^{\circ} \mathrm{C}$ | $50^{\circ} \mathrm{C}$ | About 2 years |

9. When shipping the CP-63 unit independently, place the minijumper for battery back-up in "OFF" position. Cover the CP back with cardboard, wrap connector section in aluminium 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.

1. Put the 4 "LINK SELECT" switches of the HC 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.

## 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

1. 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-63 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.


Fig. 1
3. 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)


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:

1. Be sure to avoid mistake at the time of DIP switch installation and No. 200 Programming since such mistake may lead to trouble later.
2. 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 133-21-085-5) as a part of complete drawings for each installation.

## 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-62.

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-62 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
2. Tie-line for 3 exchanges

Exchange which is called


## Reference for Connection Link Number between DL and TI Link

| Exchange which calls |  |  |  | Exchange which is called |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| DL Link No | TI Tie-line Link Number |  |  | TI Tie-line Link Number | Tie-line Link |
|  | 2 Tie-lines | 3 Tie-lines |  |  |  |
|  | To (T). (T) | To (TL) | To (tw) |  |  |
| 0 | 0 | 0 | $4)$ | Fixed by Connection Cable between Exchanges | After power switch is on, Links are used in numerical order |
| 1 | 1 | 1 | 5 |  |  |
| 2 | 2 | 2 | 6 |  |  |
| 3 | 3 | $3)$ | 7 7 |  |  |
| 4 | 4 | 0 | 4 |  |  |
| 5 | 5 | 1 | 5 |  |  |
| 6 | 6 | 2 | 6 |  |  |
| 7 | 7 | 31 | 7 7 |  |  |
| 8 | 0 | 0 | $4)$ |  |  |
| 9 | 1 | 1 | 5 |  |  |
| 10 | 2 | 2 | 6 |  |  |
| 11 | 3 | 3 ) | 7 |  |  |
| 12 | 4 | 0 | 4 |  |  |
| 13 | 5 | 1 | 5 |  |  |
| 14 | 6 | 2 | 6 |  |  |
| 15 | 7 7 | 3 | 7 |  |  |

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-63 DIP SWITCHES FOR FUNCTION SELECTION



Note: *1 Be sure to place the SW-B-4 (Paging) switch in the ON position when Paging and its allied functions are used.
*2 "45 zones" made possible with 3 exchanges are used when EX-610/620 is connected to EX-630 (not yet available for sale) A: Zone $01 \sim 07$, B: Zone $16 \sim 22$, C: Zone $31 \sim 37$
*3 When set to the "Active" position, the lamp continues to light to indicate all the stations that have called while the called party has been in the "Privacy" or "Busy" mode.

## 5. DIP SWITCH SELECTION AND STATION NO. 200 PROGRAMMING FOR EACH FUNCTION

No. 200 Programming should be proceeded in the following manner.

1. Write down the required data in "8. Programming Data Table (Page $42 \sim 47$ )"
2. Carry out the registration according to "6. Function Code Table for Station No. 200 Programming (Page $18 \sim 20$ )" and "7. Station No. 200 Programming for Each Function (Page 21 ~ 40)".

| Function | Registration or Operation at Each Station | CP DIP Switch |  |  | No. 200 |  | Programning |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | No. | Function | ON/OFF | Function Group | Function Code | Function |
| Single Digit Dialing | Single Digit Registration | - | - | - | - | - | - |
| Automatic Access to Paging | Single Digit Registration | - | - | - | A | 54 | Automatic Access to Paging |
| Master/Sub Relationship | - | - | - | - | B | 61 | Master/Sub Relationship |
| Privacy | Privacy SW ON | SW-E-5 | Tone of Called Mode at Privacy SW ON | OFF | - | - | - |
| Continuous Calling Tone at Privacy Mode | Privacy SW ON | SW-E-5 | Tone of Called Mode at Privacy SW ON | ON | - | - | - |
| Continuous Calling Tone One touch Response | - | SW-E-6 | Continuous Calling Tone | ON | A | 51 | Continuous Calling Tone |
| Personal Number Call | Personal Number Registration | SW-C-1 | Selectable Numbering Schedules | OFF | - | - | - |
| Remote Response | Remote Response Registration | SW-E-5 | Tone of Called Mode at Privacy SW ON | ON |  |  |  |
|  |  | or SW-E-6 | or Continuous Calling Tone | ON | A | 51 | Continuous Calling Tone |
| Call Transter | - | SW-B-2 | Call Transfer, Paging during Normal Calls | ON |  |  | - |
| Paging during Normal Calls | - | SW-B-2 | Call Transfer, Paging during Normal Calls | ON | - | - | - |
|  |  | SW-B-4 | Paging | ON |  |  |  |
|  |  | SW-A-5 | Time Interval Adjustment before Paging Pre-announcement Tone | ON/OFF |  |  |  |
|  |  | SW-C-5 | Paging Zones Capacity 45/21 | ON/OFF |  |  |  |
|  |  | SW-C-2 | Selectable Dial Operation for Paging Response | OFF |  |  |  |
|  |  |  |  | ON | C | 70 | Paging Zone |
| Group Hunting | - | SW-B-5 | Secretary Transfer, Group Hunting | ON | B | 62 | Group Hunting |
| Secretary Transter | Privacy SW ON | SW-B-5 | Secretary Transfer, Group Hunting | ON | B | 60 | Secretary Transter |
| Executive Priority (Highest Priority) | - | SW-B-3 | Executive Priority (Highest Priority) | ON | A | 50 | Executive Priority |
| Conference | - | SW-B-1 | Conference | ON | - | - | - |
| Paging | - | SW-B-4 | Paging | ON | - | - | - |
|  |  | SW-A-5 | Time Interval Adjustment before Paging Pre-announcement Tone | ON/OFF |  |  |  |
|  |  | SW-C-5 | Paging Zones Capacity 45/21 | ON/OFF |  |  |  |
|  |  | SW-C-2 | Selectable Dial Operation for Paging Response | OFF |  |  |  |
|  |  |  |  | ON | C | 70 | Paging Zone |
| Numbering Schedules of Tie-line System | - | SW-C-1 | Selectable Numbering Schedules | ON/OFF | S | 40 | Numbering Schedules of Tie-line System |
| Programmable Station Numbering | - | SW-D-5 | Programmable Station Numbering | ON | E | 90 | Programmable Station Numbering |
| Group Blocking | - | SW-D-4 | Group Blocking | ON | c | 71 | Establishment of Each Groups |
|  |  |  |  |  | D | 81 | Allowing Calls among Groups |
|  |  |  |  |  | D | 82 | Allowing Access to Paging Zones |
| Programmable Restricted Access for Stations | - | SW-D-1 | Stations Allowed Access to All Call, Conference and General Purpose Control | ON | A | 52 | Stations Allowed Access to All Call |
|  |  |  |  |  | A | 53 | Stations Allowed Access to Conference |
|  |  |  |  |  | A | 56 | Stations Allowed Access to One-shot Make Output |
|  |  |  |  |  | A | 57 | Stations Allowed Access to Make/Break Output |
|  |  |  |  |  | A | 58 | Stations Allowed Access to 8 Selectable/Decimal Output |
|  |  |  |  |  | A | 59 | Station Allowed Access to 4 Decimal Digits Output |
| Selection of Calling Tone | - | - | - | - | S | 41 | Selection of Calling Tone |
| Selection of Paging Pre-announcement Tone Duration | - | - | - | - | S | 42 | Selection of Paging Pre-announcement Tone Duration |
| Time-out of Conversation | - | - | - | - | S | 45 | Time-out of Conversation |
| Time-out of Paging Call | - | - | - | - | S | 46 | Time-out of Paging Call |
| In/Out Annunciation | - | SW-C-1 | Selectable Numbering Schedules | OFF | - | - | - |
| Calling Party Indication (Lamp Type) | - | SW-E-4 | Memory of Calling Party Indication (Lamp Type) | ON/OFF | C | 72 | Group of Calling Party Indication |
| Pager | - | SW-D-6 | Pager | ON | - | - | - |

6. FUNCTION CODE TABLE FOR STATION NO. 200 PROGRAMMING

## A. Clearance at one time

| Function Group | Function | Function Code | Clearance of Function | Function Registration on All Stations | Clearance of Func | n by Function Group |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S | Numbering schedules of Tie-line system | 40 | - 400 Confirmation |  | $-\underbrace{(4)[4] \cdots(4)}_{10 \text { times }} \begin{aligned} & \text { Confir- } \\ & \text { mation } \\ & \text { tone } \end{aligned}$ | (Clearsfunction groups) |
|  | $\begin{aligned} & \text { Selection of Calling } \\ & \text { Tone } \\ & \hline \end{aligned}$ | 41 | [-4] [2] Confirmation |  |  |  |
|  | Selection of Paging Pre-announcement Tone | 42 |  |  |  |  |
|  | Time-out of Conversation | 45 |  |  |  |  |
|  | Time-out of Paging Call | 46 | $0 \boxed{6} \text { (0) } 0 \begin{aligned} & \text { Confirmation } \\ & \text { tone } \end{aligned}$ |  |  |  |
| A | Executive Priority | 50 |  | $\theta(5) \times \underbrace{\text { PTTD (PTT } \cdots \text { PTT }}_{10 \text { times }} \begin{aligned} & \text { Confir- } \\ & \text { mation } \\ & \text { tone } \end{aligned}$ | $[\cdot] \underbrace{5][5] \cdots[5]}_{10 \text { times }} \begin{aligned} & \text { Confir- } \\ & \text { mation } \\ & \text { tone } \end{aligned}$ | (Clears function group A) |
|  | Continuous Calling Tone | 51 |  |  |  |  |
|  | Station Allowed Access to All Call | 52 |  |  |  |  |
|  | Stations Allowed Access to Conference | 53 |  |  |  |  |
|  | $\begin{aligned} & \text { Automatic Access to } \\ & \text { Paging } \end{aligned}$ | 54 |  |  |  |  |
|  | Stations Allowed Access to One Shot Make Output | 56 |  |  |  |  |
|  | Stations Allowed Access to Make Brake Output | 57 |  |  |  |  |
|  | $\begin{aligned} & \text { Stations Allowed } \\ & \text { Accessto } 8 \text { Selectable/ } \\ & \text { Decimal Output } \end{aligned}$ | 58 |  |  |  |  |
|  | Stations Allowed Access to 4 Decimal Digits Output | 59 |  |  |  |  |
| B | Secretary Transfer | 60 |  |  |  | (Clears function group B) |
|  | Master/Sub | 61 |  |  |  |  |
|  | Group Hunting | 62 |  |  |  |  |
| C | Paging Responce, Paging Priority | 70 |  |  | $\text { - } \underbrace{\sqrt[7]{7}[7] \sqrt[7]{7}}_{10 \text { times }} \begin{aligned} & \text { Confir- } \\ & \text { mation } \\ & \text { tone } \end{aligned}$ | (Clears function group C ) |
|  | Group Blocking of Each Group | 71 |  |  |  |  |
|  | Group of Calling Party Indication | 72 |  |  |  |  |
| D | Group Blocking: Allowing Calls Among Groups | 81 |  |  |  | (Clears function group D) |
|  | Group Blocking: AllowingAccess to Paging Zones | 82 |  |  |  |  |
| E | Programable Station Numbering | 90 |  |  |  | (Clears function group E ) |
| * | Personal Number Single Digit Dialing RemoteResponse | - |  |  | $\bullet \underbrace{0 \square(\square) \cdots}_{10 \text { times }} \begin{gathered} \text { Confir } \\ \text { mation } \\ \text { tone } \end{gathered}$ | (Clears functions of Personal No., Single Digit Dialing and Remote Response) |

Note: *Can be registered at each station.

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## FUNCTION CODE TABLE FOR STATION NO. 200 PROGRAMMING

## B. Programming of System



FUNCTION CODE TABLE FOR STATION NO. 200 PROGRAMMING

## C. Programming of each Function

| Func- tion Group Group | Function | $\begin{aligned} & \text { Func- } \\ & \text { tion } \\ & \text { Code } \end{aligned}$ | 1st Parameter | 2nd Parameter | 3rd Parameter | 4th Parameter | OPERATING FOR PROGRAMMING |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | Executive Priority | 50 | Station No. | ON/OFF (10) |  |  |  |
|  | $\begin{array}{\|l\|} \hline \text { Continuous Calling } \\ \text { Tone } \end{array}$ | 51 | Station No. | ONOFF (1/0) |  |  |  |
|  | Station Allowed Access to All Call | 52 | Station No. | ONIOFF (10) |  |  |  |
|  | $\begin{aligned} & \text { Stations Allowed } \\ & \text { Access to } \\ & \text { Conference } \\ & \hline \end{aligned}$ | 53 | Station No. | ONOFF (1/0) |  |  |  |
|  | Automatic Access to Paging | 54 | Station No. | ON/OFF (10) |  |  |  |
|  | $\begin{aligned} & \text { Stations Allowed } \\ & \text { Stacess tolone-shot } \\ & \text { Aloke Output } \\ & \text { Mat } \end{aligned}$ <br> Make Output | 56 | Station No. | ONOFF (1/0) |  |  |  |
|  | $\begin{aligned} & \text { Stations Allowed } \\ & \text { Accoss tollakel } \\ & \text { Break Output } \\ & \hline \end{aligned}$ | 57 | Station No. | ONOFF (1/0) |  |  |  |
|  | Stations Allowed to 8 Selectable/ Decimal Outpu | 58 | Station No. | ONOFF (10) |  |  |  |
|  | Stations Allowed AAcess tol titat Docimal Digits Output | 59 | Station No. | ON/OFF (10) |  |  |  |
| B | Secretary Transfer | 60 | $\begin{array}{\|l} \hline \text { Executive } \\ \text { Station No. } \end{array}$ | Secretary Station No. |  |  |  |
|  | Master/Sub | 61 | Sub Station No. | Mater Station No. |  |  |  |
|  | Group Hunting | ${ }^{62}$ | Main station No. | $\begin{array}{\|l\|} \hline \\ \hline \text { Transfered Station } \\ \text { No. } \end{array}$ |  |  | Repeat Repeat $^{\text {Rea }}$ |
| c | Paging Zone | 70 | Zone No. ( $\left.\begin{array}{l}01 \sim 21 \\ 01 \sim 45\end{array}\right)$ | The First Station No. of the Zone | The Last Station No. of the Zone |  |  |
|  | $\begin{aligned} & \text { Group Blocking: } \\ & \text { Establishock } \\ & \text { Each Group } \end{aligned}$ | 71 | Group No. (1~6) | The First Station No. of the Group No. of the Group | The Last Station No. of the Group |  |  |
|  | Group of Calling Party Indication | 72 | Group No. (1~6) | The First Station No. of the Group | The Last Station No. of the Group |  |  |
| D | Group Blocking: Allowing Calls Among Groups | 81 | $\underbrace{}_{\substack{\text { Calling } \\(1-8)}}$ Group No. | Called Group No.(s) (1~8)(Plural) |  |  |  |
|  | Group Blocking: Allowing Access to Paging Zones | 82 | $\begin{aligned} & \text { Paging Zone No. of } \\ & \text { Paged Group } \\ & (00 \sim 21,00 \sim 45) \end{aligned}$ | $\underset{\text { Paing Group No.(s) }}{\text { (Plural) }}$ | $(1 \sim 6)$ |  |  |
| E | $\begin{array}{\|l\|l\|} \hline \text { Programable } \\ \text { Station Numbering } \end{array}$ | 90 | $\left\|\begin{array}{cc} \text { Hardwired Station } \\ \text { No. } & { }^{2} \end{array}\right\|$ | $\left\lvert\, \begin{array}{ll} \text { Programmed Sta- } \\ \text { tion No. } & { }_{2} \\ \hline \end{array}\right.$ |  |  |  |
|  |  |  | The First Hardwired Station No | The Last <br> Hardwired <br> Station No. | $\begin{array}{\|l} \text { The First } \\ \text { Propammed } \\ \text { Station No. } \end{array}$ | $\begin{array}{\|l\|l} \text { The Last } \\ \text { Programmed } \\ \text { Station No. } \end{array}$ |  |

*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.

$$
-20-
$$

## 7. STATION NO. 200 PROGRAMMING FOR EACH FUNCTION

## 7-1 EXECUTIVE PRIORITY (FUNCTION CODE 50) (HIGHEST PRIORITY)


notes

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

Touch
 Confirmation tone will be heard.)

Be sure to depress the PTI key steadily.
2. To release at one time the data programmed into all the stations for this function,

Touch

(Confirmation tone will be heard.)


NOTES

1. To allow all the stations to have this function,
Touch
 (Confirmation tone will be heard.)
2. Re-start at Step 1 when mis-dialing occurs. (All other registrations remain valid.)
3. CP DIP switch E-6 must be "ON" to employ 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,

Touch $\bullet 5 \square 10 \square \quad$ (Confirmation tone 10 times will be heard.)

## 7-3 STATIONS ALLOWED ACCESS TO ALL CALL (FUNCTION CODE 52)



NOTES

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


NOTES

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

Touch $05 \sqrt{3} \underbrace{\text { PTT (PTT } \cdots(P T T)}_{10 \text { times }}$
(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". Switch B-1 must be "ON" to employ this function.
2. To release at one time the data programmed into all the stations for this function.

Touch
 (Confirmation tone will be heard.)

## 7-5 AUTOMATIC ACCESS TO PAGING (FUNCTION CODE 54)



NOTES

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

Touch
 4
 (Confirmation tone will be heard.)
3. 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.
Touch $\bullet 5,4, \square \cdots \cdots \square \begin{aligned} & \text { (Confirmation tone } \\ & \text { will be heard.) }\end{aligned}$ 10 times

## 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 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 $\square$, 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

| Function | Necessary Programming | Call to Master Station |  | Paging Call, Paging Response or Personal Number Call |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | By dialing O | By picking up Handset | By dialing $\square$ | By picking up Handset |
|  |  | at <br> HF-620Sor <br> HF-600S | at <br> TL-600S or HF-600S <br> (Privacy SW. ON) | at <br> HF-620S or HF-600S | at <br> TL-600S or HF-600S <br> (Privacy SW. ON) |
| Single Digit <br> Dialing | Single Digit Registration at Station | (O) | X | $\bigcirc$ | X |
| Master/sub <br> Relationship <br> *2 | Programming at <br> Station No. 200 <br> (Function Code 61) | $\bigcirc$ | $\bigcirc$ | X | X |
| Automatic Access to Paging Paging (or Calling) from Handset Substation | 1. Single Digit <br> Registration at Station <br> 2. Programming at Station No. 200 (Function Code 54) | $(\bigcirc)$ | (O) | $\bigcirc$ | $\bigcirc$ |
| Note. <br> $\bigcirc$ : Possible <br> $X$ : Impossible <br> (O) : Possible but usually Not to be used <br> *1 : Possible across the tie-lined exchange. <br> *2 : Impossible across the tie-lined exchange |  |  |  |  |  |



NOTES

1. To allow all the stations to have this function,
2. Re-start at Step 1 when mis-dialing occurs

Touch $\bullet E \sqrt{6} \underbrace{(\mathrm{PTT} \text { PTT) } \cdot \mathrm{PTT}}_{10 \text { times }}$ (Confirmation tone will be heard.) (All other registrations remain valid.)
4. Programming is necessary only if CP DIP switch D-1 is "ON".

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 $\bullet, 5 \underbrace{\square}_{10 \text { times }}$, $\cdots, \square$ (Confirmation tone

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



NOTES

1. To allow all the stations to have this function,
Touch $\bullet 57 \underbrace{\text { PTT PTT } \cdots \text { PTT }}_{10 \text { times }}$ (Confirmation tone
will be heard.) will be heard.)
Be sure to depress the PTT key steadily.
2. Re-start at Step 1 when mis-dialing occurs.
(All other registrations remain valid.)
3. Programming is necessary only if CP DIP switch D-1 is "ON".
4. To release at one time the data programmed into all the stations for this function.
Touch $0,5,0,0 \cdots, 0$ (Confirmation tone 10 times

## 7-8 STATIONS ALLOWED ACCESS TO 8 SELECTABLE OR DECIMAL OUTPUT (FUNCTION CODE 58)



NOTES

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

Touch
 (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,

$$
\text { Touch } \bullet 5 \square \square \square \cdots \square \square
$$

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".

## 7-9 STATIONS ALLOWED ACCESS TO 4 DECIMAL DIGITS OUTPUT (FUNCTION CODE 59)



NOTES

1. To allow all the stations to have this function.
 (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 $\bullet 5 \square \underbrace{\square \boxed{0} \cdots \cdot \square}_{10 \text { times }}$
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".

## 7-10 SECRETARY TRANSFER (FUNCTION CODE 60)



NOTES

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

Touch $06 \underbrace{0 \square O \cdots(0)}_{10 \text { times }} \begin{aligned} & \text { (Confirmation tone } \\ & \text { will be heard.) }\end{aligned}$
2. 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 Secretary Transfer can be made in a daisy chain method. For their examples, refer to the following sketch.


## 7-11 MASTER/SUB RELATIONSHIP (FUNCTION CODE 61)



NOTES

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

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

## 7-12 GROUP HUNTING (FUNCTION CODE 62)



NOTES

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

Touch

(Confirmation tone will be heard.) 10 times
2. 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.


## 7-13 PAGING ZONE (FUNCTION CODE 70)



NOTES

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

Touch $\because \square \square \square \square \square \square \square, \begin{aligned} & \text { (Confirmation tone } \\ & \text { will be heard.) }\end{aligned}$

2. Re-start at Step 1 when mis-dialing occurs.
(All other registrations remain valid.)
3. Switch B-4 must be "ON" to employ this function.
4. In the case "Paging Response Without Zone Number" mode $(\cdot \square,[\square)$ is selected by the DIP Switch SW-C-2 this registrationisessential.
5. Zone number series of each exchange in Tie-line system.

| Model <br> Type of <br> exchange | EX-610/620 | EX-610/620 <br> (tie-lined to <br> EX-630) | EX-630 |
| :--- | :--- | :--- | :--- |
| Exchange "A" | No. 01~07 | No. 01~07 | No. 01~15 |
| Exchange "B" | No. 08~14 | No. 16~22 | No. 16~30 |
| Exchange "C" | No. 15~21 | No. 31~37 | No. 31~45 |

GROUP BLOCKING 1


NOTES

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.)
3. CP DIP switch D-4 must be "ON" to employ this function.

## 7-15 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,

2. Re-start at Step 1 when mis-dialing occurs.
(All other registrations remain valid.)
3. 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.

GROUP BLOCKING 2


GROUP BLOCKING 3


## 7-18 PROGRAMMABLE STATION NUMBERING (FUNCTION CODE 90)

A. Programming of Single Station Number


NOTES

1. To release all registered Programmed Station No.'s at one time,
Touch

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

## B. Programming of Serial Station Numbers



NOTES

1. To release all registered Programmed Station No.'s at one time,
Touch

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 19).

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

| <Example $1>$ With personal number(Standard) |
| :---: | :---: | :---: |
| Exchange Hardwired <br> Station No. Programmed <br> Station No. <br> A $200 \sim 327$ $200 \sim 469$ <br> B $470 \sim 597$ $470 \sim 739$ <br> C $740 \sim 867$ $740 \sim 999$ |

<Example 2> Without personal number

| Exchange | Hardwired <br> Station No. | Programmed <br> Station No. |
| :---: | :---: | ---: |
| A | $100 \sim 227$ | $100 \sim 399$ |
| B | $400 \sim 527$ | $400 \sim 699$ |
| C | $700 \sim 727$ | $700 \sim 999$ |

<Example 3>

| Exchange | Hardwired <br> Station No. | Programmed <br> Station No. |
| :---: | :---: | :---: |
| A | $200 \sim 327$ | $200 \sim 399$ |
| B | $400 \sim 527$ | $400 \sim 599$ |
| C | $600 \sim 727$ | $600 \sim 799$ |

## 8. PROGRAMMING DATA TABLE

## - INITIAL PROGRAMMING

Note. (Mark *)
The first station of each exchange becomes the Programming Station:
Exchange "A" No. 200 (100)
Exchange "B" . . . . . . . . . . . . . . . . . . . . . . . . . . No. 470 (400)
Exchange "C"
No. 740 (700)
$\overline{=}$ Initial 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. $\cdot \bullet$ 4 4 • 4 Confirmation tone will be heard (Clears function group $S$ ) 10 times
4. $\cdot 5$. $5 \cdot 5$ Confirmation tone will be heard (Clears function group A) 10 times
5. © 日 6 Confirmation tone will be heard (Clears function group B) 10 times
6. $\cdot \underbrace{7 \sqrt[7]{7} \cdot \sqrt{7}}_{10 \text { times }}$ Confirmation tone will be heard (Clears function group C)
7. $\bullet \underbrace{8, ~ B}_{10 \text { times }} \cdot \sqrt{8}$ Confirmation tone will be heard (Clears function group D)
8.     - $\underbrace{9 \cdot \cdot \theta}_{10 \text { times }}$ Confirmation tone will be heard (Clears function group E)
9. $\quad \square \square \square \square$ Confirmation tone will be heard. 10 times (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. [C] (Station No. 200 (100) becomes a normal station.) *

## Clearance of Each Function at a Time $=$



## =Establishment of Function on All Stations at a Time $\overline{ }$



## < PROGRAMMING DATA TABLE 1 >






[^0]


|  | Paging Zone |  |  |  | First Station No. | Last Station No. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Department | A | B | C |  |  |
|  |  | 01 | 08(16) | 15(31) |  |  |
|  |  | 02 | 09(17) | 16(32) |  |  |
|  |  | 03 | 10(18) | $17(33)$ |  |  |
|  |  | 04 | 11(19) | 18(34) |  |  |
|  |  | 05 | 12(20) | $19(35)$ |  |  |
|  |  | 06 | 13(21) | 20(36) |  |  |
|  |  | 07 | 14(22) | 21(37) |  |  |

Station Numbers Table for Calling Party Indication (Lamp Type)

| $\begin{aligned} & \text { N } \\ & \text { ס } \\ & 0 \end{aligned}$ | Calling Party Indication |  | First Station No. | Last Station No. |
| :---: | :---: | :---: | :---: | :---: |
|  | Name | Group No. |  |  |
|  |  | 1 |  |  |
|  |  | 2 |  |  |
|  |  | 3 |  |  |
| 응 |  | 4 |  |  |
| $\stackrel{0}{5}$ |  | 5 |  |  |
| ப |  | 6 |  |  |
|  |  | 7 |  |  |
|  |  | 8 |  |  |

Note. 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.

## <PROGRAMMING DATA TABLE 6>




## <PROGRAMMING DATA TABLE 7>



- Summary Table of

Group Blocking (Function Code 71, 81, 82) and Paging Zone (Function Code 70)

Note. $\odot$ : indicates that registration is not necessary,
$x$ : indicates stations not belonging to any group.


## PART 2. FUNCTION SELECTION FOR DATA TRANSMITTING AND RECEIVING UNITS

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

## note

1. Connect the DT-E11 and DR-B61 to Exchange correctly. (Refer to operation manuals of DT-E11 and DR-B61)
2. Set the function select switches (DIP SWITCH) on CP-63 correctly and be sure to enter initial programming and function registration at programming station No. 200.
3. 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




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## 12. EXPLANATION OF DATA TRANSMITTING UNIT OUTPUT CHANNELS

| CHANNEL SELECTION | FUNCTIONS | DESCRIPTION | APPLICATION |
| :---: | :---: | :---: | :---: |
|  | IN/OUT Annunciation | Personel in and out registration can be accomplished at any Master station by using personal numbers. Max. 500 IN/OUT annunciations may be done. (All the 3 exchanges provided the same indication) | - IN/OUT Annunciation |
|  | (1) One-shot Make Output (50 contacts) | One-shot make contacts can be available at any Master station. | - ITV camera selection <br> - VTR control |
|  | (2) Make/Break Output (100 contacts) | Make/Break contacts can be available at any Master station. *1 | - Door Remote <br> - IN/OUT Annunciation |
|  | (3) 8 Selectable Make Output (9 unit blocks) | One contact out of 8 selectable make outputs is obtained. "Clear" operation makes ail 8 relays break. *1 | - Destination indication <br> - VTR control |
|  | (4) Decimal Output (9 unit blocks) | 10 Selectable Decimal Outputs are available with 7 segments LEDs. *1 | - Room condition indication. |
|  | (5)4 Decimal digits output (9 unit blocks) | Indicate by 7 segments LEDs. *1 | - Prescription annunciation |
|  | (6) Pager Control Output (64 contacts) | Make output ( 64 contacts) are available for pager control. *2 | - Pager |
|  | Calling Party Indication (1) (One Station; One Lamp) | Max. 120-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. (Only the calling stations within the same exchange can be indicated by a lamp) | - The group number of called station(s). No. $1 \sim 4$ |
| CH. 3 年 | Calling Party Indication (2) (One Station; One Lamp) |  | - The group number of called station (s). No. $5 \sim 8$ |

Note.
*1.Each exchange has an independent control system, and it is impossible to control the Data Transmitting Unit of the other exchange form the station connected to the different exchange.
*2. Can only be connected to the exchange A (Station No. 200 ~ 327). It is impossible to call the pagers from any station not connected to the exchange A. However, the response to a pager call is possible from any station regardless of the exchange it is connected to.

## 13. EXPLANATION OF DATA RECEIVING UNIT OUTPUT DATA

## 13-1 Channel 0 (CH. 0) In/Out Annunciation


(Dial Operation)

Date Receiver
Relay Output No.


DR-B61
NO. 1
 - $\cdot 1 \times \boxed{x}$ (Relay Break)



|  |
| :---: |
|  |  |













|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 406405 | 405404 |  |  | 1 | 401400 | 400399 | 398 | 398397 | 397 | 1966395 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 423322 | 32242 | 421420 |  | 418 | 4841 |  |  | 41 | 414413 | 13412 | 12 |  |  |  |  |  |  |
|  |  | 437 | 437 |  |  | 334 |  |  |  |  |  | 28 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 470469 | 469468 |  |  | 46646 | 465464 | 46446 | 46 | 462461 | 161460 | 60459 |  |  |  |  |  |  |
|  | 32 | 31 30 | 30 |  |  |  |  |  |  | 232 | 2.21 | 21-20. |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { DR-B61 } \\ & \text { NO. } 16 \end{aligned}$ |  |  |  |  |  | 498 |  |  |  |  | 493492 | 192491 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  | (1) | 142 |  |  |  |  |  |  |  |



|  | Each "Calling Station" or "Waiting Station" is shown by Each Lamp of Indication. |
| :--- | :--- |
| Exchange | Total Number of Station with Indications: 4 Stations (Groups//Channel [8 Stations (Groups)/2 Channels] |
| EXES-6000 | Total Number of Calling Stations: Max. 120 Stations/Each Indication |



Each Relay Output shows "Calling Station No."

Total Number of Station with Indications: 4 Stations (Groupsl/Channel [8 Stations (Groups)/2 Channels] Total Number of Calling Stations: Max. 120 Stations/Each Indication

Each＂Calling Station＂or＂Waiting Station＂is shown by Each Lamp of Indication．
Exchange $\quad$ Total Number of Station with Indications： 4 Stations（Groupsl／Channel［8 Stations（Groups）／2 Channels］



WD． 4

W0． 6 ［路：？？

 WD． 9 ［


 WD． 13 路 SW2



 $\qquad$ SW2
$\qquad$

No．

Group 6
Grou
No．
No． $\qquad$

Group 7
No．
$\qquad$
No． $\qquad$




## 







Note：（凸）shows the Head of a Slide Switch

Each Relay Output shows ＂Calling Station No．＂

1. The CPU-55/56 differ from the CP-62/63 in dial operation.

| Function | CPU-55 | CPU-56 | CP-62 | CP-63 |
| :---: | :---: | :---: | :---: | :---: |
| Continuous Calling Tone One-touch Response | PTT | PTT, 1-9, [0], 0 | (1) $9,0,0,0$ |  |
| 8 Selectable Make Output |  | $\begin{aligned} & 3: \underset{1 \sim 9, Y: 0 \sim 7}{X} \underset{Y}{X} \underbrace{X}_{1} \end{aligned}$ | $\begin{array}{rl} 0 & 8 \\ X: 1 \sim 9, Y: 1 \sim 8,0 & (\text { Clear }) \end{array}$ | $\begin{gathered} \bullet \bullet \rightarrow X, Y \\ X: 1 \sim 9, Y: 1 \sim 8,0 \text { (Clear) } \end{gathered}$ |

2. Set the DIP switch SW-E-5 (change-over of Privacy and Continuous Calling Tone) to OFF (Privacy). Set the other DIP switches according to the necessity.
3. The "Automatic Access to Paging" function is not available from the EXES-5000 system. You, therefore, need not program the "Automatic Access to Paging" function (Function Code No. 54) referred to in Function Code Table for Station NO No. 200 Programming.
4. Module units necessary for the tie-line system.

| Function | Exchange "A" | Exchange "B" | Possible or impossible | Reason | Necessary module units |
| :---: | :---: | :---: | :---: | :---: | :---: |
| All functions |  |  | Possible |  | - It is impossible to use both the CPU-56 and the CP-63 in the same system. |
|  |  |  | Impossible |  |  |
| Conversation |  | $\frac{\operatorname{cP-63}}{0 L U-52}$ | Possible |  | - DLU-52 <br> or <br> - DL-62, OC-62 <br> - It is impossible to use both the CPU-56 and the CP-63 in the same system. |
|  | CP-63 | $\mathrm{CP}-63$ | Impossible | 2 voice switch passes |  |
|  |  |  | Possible | 1 voice switch passes |  |
| Conference | $\begin{gathered} \mathrm{CP}-63 \\ \hline \mathrm{DLU}-52 \\ \hline \mathrm{CLU-52} \\ \hline \end{gathered}$ |  | Impossible | 3 voice switch passes | -CL-62, DL-62, OC-62 |
|  |  |  | Possible | 1 voice switch passes |  |

Note.

1. To ensure the complete speech functions (perfect simultaneous speech, calls and responses made by means of a handset, etc.) that the stations of EXES-6000 system can have, 2-wire stations as well as the LM-62 is necessary.
2. The exchange using the frame FR-510 or FR-520 allows for no tie-line connection to the other exchange. The tie-line connections are only possible among the exchanges using the frame FR-510A, FR-520A, FR-510B, FR-520B, FR-610 or FR-620.
3. For the following module units, you may use whichever you proper: SGD-52A and SG-62 (the SG-62 is necessary when the LM-62 is used.)

PIU-52A and PI-62
TI-52 and TI-62
4. When the CP-63, OC-62 and DL-62 are used in the tie-line system, the speech link of the calling exchange is in the full duplex mode, while voice switches cause the speech link of the called exchange to be in the automatic alternative speech mode.
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[^0]:    $\square$

