

# COMPLETE BUSINESS PHONE SYSTEM

Digital PBX Keyphone System with 4 x LCD Telephones

**EASYPBX**™

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## Digital Key Telephone System Advanced Installation and Programming Manual



N517



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MADE IN TAIWAN

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# 1. SYSTEM SPECIFICATIONS AND INSTALLATION

## 1.1 System Specifications

	MODEL	ISDK-26
KSU	Power Source	AC 110V~132V AC200V~240V, 50/60Hz
	Power Consumption (except stations)	7W
	Max. DC Output Power	50W
	External Back-up Battery	24V/4 – 50AH
	Max. Battery Charge Current	27. 6V/0.5A
	Station Capacity	16 – 24
	CO Lines	2 – 10
	Digital Key Telephone	2 – 16
	Single Line Telephone	0 – 8
	Switching System	PCM / TDM
	Link Block	No Blocking
	Tone Voice Source	Programmable Digital Voice Source
	System Control	Stored Program Control
	Speed Dialing (Max. 32 code) Number	System + Individual = 2000
	Dimension (mm)	320 x 77 x 385
	Basic Cabinet Net Weight (kg)	2.2
Key phone	Dimension (mm)	170 x 230 x 100
	Net Weight (kg)	0.9
Installation Environment	Available Temperature	5 – 45°C
	Relative Humidity	20 – 80 %RH

## 1.2 Available Capacity

The available max. extensions with following CO lines:

CO Line	2	4	6	10*
Key Telephone	16	16	16	16
SLT	24	18	16	8
Available Capacity	2/16+8x3	4/16+2+8x2	6/16+8x2	10/16+8

1. Basic Capacity: 2 CO Lines/16 Station Lines
2. Each MPU including 2 CO lines and 8 Station lines. It can be installed with 16 pcs of ISDK/UD/USK key phone.
3. Optional interface for expandable capacity: Trunk card: TRK-2 (F9953), TRK-4 (F9803) or ISDN card: ISDN-2 (F9851) and ISDN-3 (F9851); VoIP card (F9857), Single line station card: SLT-2 (F0038), SLT-4 (F9808) and SLT-8 (F9808); Multi-function card (F9810) and Voice Mail card (F0054).
4. Above "\*" capacities of system can not install the F9910 doorphone voice card. If it installs the F9910, the F9808 has to be decreased 1 pc or the optional doorphone must be connected with CO line interface only.
5. Max.: 3 layers expanding card.

## 1.3 Interface Specifications

### 1.3.1 F9851 ISDN-BRI Card

Item	Description
ISDN-BRI Capacity	2 / 3 Loops (2B+D)
ISDN-BRI Transmission Way	4 / 6 Lines full duplex transmission
ISDN-BRI Channel Structure	2B+D
ISDN-BRI Line Code	Pseudo-Ternary Coding
ISDN-BRI Total Bit Rate	192 Kbps
ISDN-BRI Transmission Level	375 mV±10% @50 Ω load
ISDN-BRI Power	No transmission & unused NT1 power
ISDN-BRI Layer 2 Protocol	Q921 (LAPD)
ISDN-BRI Layer 3 Protocol	Q931

### 1.3.2 F9803 Trunk Card (TRK-4)

Item	Description
Capacity of Each Trunk Card	4 Loops
Resistance of CO Line Loop	Complex Impedance 900 Ω
Cabling Method	2 wires twist connection
Dialing Method	A. DTMF Dialing, dialing time & signal could be programmed. B. Pulse Dialing, breaking ratio 1:2 Speed 10pps~20pps

### 1.3.3 F0038B Single Line Card (SLT-2)

Item	Description
Capacity of Each Single Line Card	2 Loops
Resistance of Single Line Loop	Complex Impedance 900 Ω
Cabling Method	2 wires twist connection
Dialing Detection Way	DTMF & Pulse Dialing
Tip-Ring supply voltage	-48V
Message waiting light signal	Low voltage LED
Distinctive characteristics	On-hook transmission (for DTMF Caller ID mode) Ground-key detector Polarity reversal Ring current included

#### 1.3.4 F9808C Single Line Card (SLT-4/8)

Item	Description
Capacity of Each Single Line Card	4 Loops / 8 Loops
Resistance of Single Line Loop	Complex Impedance 900 $\Omega$
Cabling Method	2 wires twist connection
Dialing Detection Way	DTMF & Pulse Dialing
Tip-Ring supply voltage	-48V
Message waiting light signal	Low voltage LED
Distinctive characteristics	On-hook transmission (for DTMF Caller ID mode) Ground-key detector Polarity reversal Ring current included

#### 1.3.5 F9810 Multi-Function Card

Item	Description
SMDR interface	RS-232 1 Loop 8 wires
Doorphone interface	600 $\Omega$ , 1 Loop 2 wires~6 wires (5 keys)
Electric Lock	1 Loop 3 wires (power included & unclosed door detection)
External Music Source	1 Loop 2 wires, 560 $\Omega$ , Max. 2 Vrms
External Voice Switch	1 Loop 2 wires, Max. 30V/0.5A
Page Output	1 Loop 2 wires, 560 $\Omega$ , Max. 0.8Vrms
Page Switch	1 Loop 2 wires, Max. 30V/0.5A

#### 1.3.6 F9910 Doorphone Voice Card

Item	Description
Door phone Interface	600 $\Omega$ , 1 Loop 2 wires~4 wires (3 groups)
Electric Lock	1 Loop 3 wires (power included)

#### 1.3.7 F9852 2 SLT-Converter (Analog Adapter)

Item	Description
Capacity	2 Loops
Resistance of Loop	600 $\Omega$
Cabling Method	2 wires twist connection
Dialing Method	DTMF or Pulse Dialing



### 1.3.8 F9931 CPU Card

Item		Description
CO Line	Capacity	2 Loops
	Resistance of CO Line Loop	Complex Impedance 900 $\Omega$
	Cabling Method	2 wires twist connection
	Dialing Method	DTMF Dialing, dialing time & signal could be programmed. B. Pulse Dialing, breaking ratio 1:2 Speed 10pps~20pps
Digital Station Line	Capacity	8 Loops
	Maximum Connection Station of Each Loop	Parallel connection with 2 stations
	Maximum Loop Resistance	250 $\Omega$
	Cable Method of Digital Station Card	2 wires twist connection
	Communication Method	2B + 2D, 1B + 1D (Station to KSU)
	Maximum Voltage Supply	27.6V
	Maximum Current Supply	300 mA
	Terminal Resistance of Digital Station Card	100 $\Omega$

### 1.3.9 F9857 VoIP Card

Item	Description
Capacity	4 Loops
Loop Mode	Trunk / Extension mode
Protocol	SIP 2.0 (RFC 3261) and H.323 version 4 FAX over IP (T.30 & T.38) TCP/UDP/IP, RTP/RTCP, HTTP, ARP/RARP, ICMP, DNS, DHCP, NTP, FTP
Codec	G.723.1 or G.729A/B, G.711(a-law/u-law)
Voice Quality	Silence Compression VAD (Voice Activity Detection) CNG (Comfort Noise Generation) Line Echo Cancellation (G.168) with 32 ms echo tail
Security	MD5 for SIP authentication (RFC 2069 / RFC 2617)
Network Interface	RJ45 x 5 (1 for WAN, 4 for LAN)
Internet Connection	PPPoE / DHCP / Static IP
IP Sharing	NAT traversal using IETF STUN (SIP) Build-in NAT QoS DHCP server Virtual server DDNS
Configuration	Web browser and Telnet configuration Remote software upgrade capability (via ftp)

### 1.3.10 F9953 Trunk Card

Item	Description
Capacity of Each Trunk Card	2 Loops
Resistance of Loop	Complex Impedance 900 $\Omega$
Cabling Method	2 wires twist connection
Dialing Method	DTMF Dialing, dialing time & signal could be programmed. B. Pulse Dialing, breaking ratio 1:2 Speed 10pps~20pps

### 1.3.11 UD-2150 Caller ID Card

Item	Description
Capacity of Each Card	4 Loops
Compatible Standard	ETSI British Telecom (BT) SIN227 & SIN242 Bellcore GR-30-CORE (TR-NWT-000030 & SR-TSV-002476)
FSK Demodulation	1200 Baud BELL 202 and CCITT V.23
Detection Mode	FSK and DTMF
FSK Input Sensitivity	-45 dbm
DTMF Input Sensitivity	-29 dbm

### 1.3.12 UDF2-DISA Automatic Operator

Item	Description
Loop Number	2 Loops
Voice Capacity	256 sec. (basic)/512 sec. (optional)
External Battery	DC 12V
Power Consumption	70 mA, at DC 24V
Isolation Resistance	More than 10M $\Omega$ at DC 250V
DTMF Signal	-6 dbm $\pm$ 1dbm

## 1.4 KSU Installation Instructions

### 1.4.1 ISDK-26 KSU installation steps:

- 1.4.1.1 To test the plug socket of power AC supply to make sure whether it is 100~260V. When the voltage is unsteady, please install the regulator, When installing **ISDK-26**, please make sure the main supply is 100V or 220V. If it is 220V, please cut the jump (J4) on the power card.
- 1.4.1.2 To install the external battery.
- 1.4.1.3 To turn the AC power or battery switch to "ON" position. After MPU making initial setting for every interface, the LED of MPU will be blinking simultaneously with the LED of every port.
- 1.4.1.4 If the system is running normally, please turn off the switches of system, battery and AC power in sequences.

#### **1.4.2 Choose Main Power Supply:**

- 1.4.2.1 Please avoid using the same power supply socket for main power and heavy load power supply.
- 1.4.2.2 When installing ISDK-26, please make sure the main supply is 100V or 220V. If it is 220V, please cut the jump (J4) on the power card.

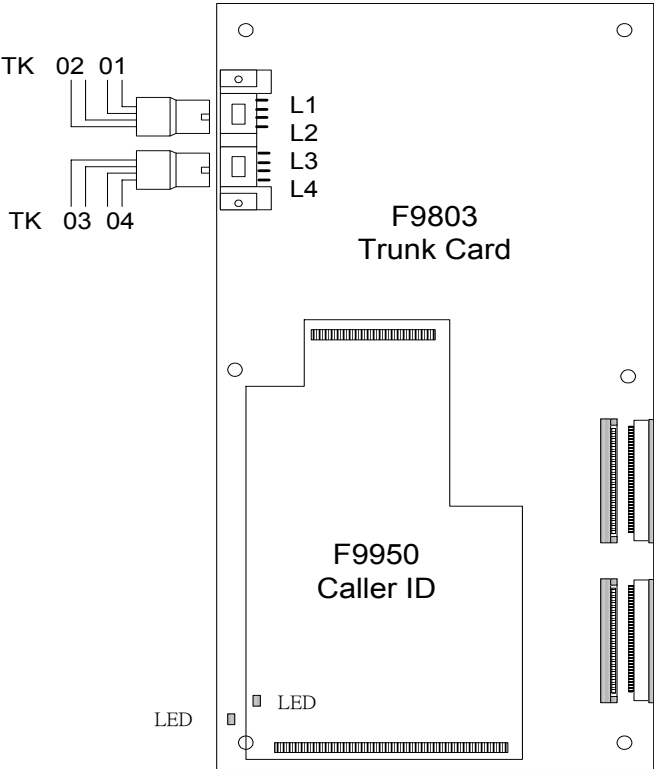
#### **1.4.3 External Battery Installation:**

- 1.4.3.1 The external battery is auto rechargeable and the recharge voltage is 27.6V.
- 1.4.3.2 When the power is failure, the battery can supply the power automatically.
- 1.4.3.3 When the voltage of battery is below the certain level (about 21V), the system will cut off the power of battery automatically.
- 1.4.3.4 Please turn off the switches of battery before replacing a new one during the AC power failure.
- 1.4.3.5 The red battery connecting line is "+", black is "-". Connecting with the battery connect terminal of ISDK-26 F9934 main power board.
- 1.4.3.6 If the water-filled battery is used, please always check whether there is enough distilled water.
- 1.4.3.7 The battery must not connect with the other equipment.
- 1.4.4 The Cautions For ISDK System Connection:
  - 1.4.4.2 To put the ISDK KSU at the suitable place near the wall.
  - 1.4.4.3 Please use the twist wire cabling to prevent interference.
  - 1.4.4.4 For ISDN Loops, it should be connected by standard ISDN cable to prevent interference and resistance compatible problem.

#### **1.5 The Cautions For Connection:**

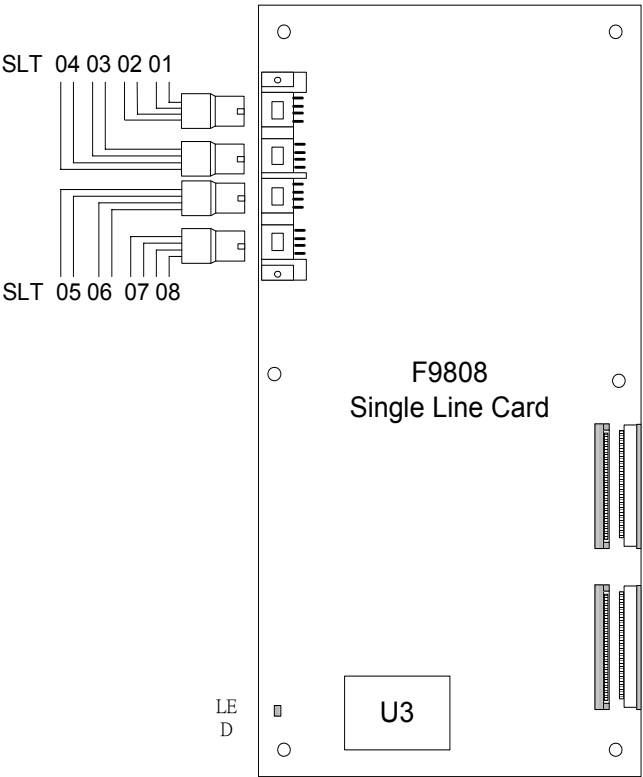
- 1.5.1 Please turn all power switch "OFF"!!
- 1.5.2 Avoid installing the system in sunlight, hot, cold or humid, dusty place or the place where water or oil may come into the system.
- 1.5.3 The distance between KSU and power socket can not be too far.
- 1.5.4 Get close to PTT trunk terminal equipment.
- 1.5.5 Avoid sharing power source with heavy -load machine or equipment especially inductive load (ex. air conditioner, motor...).
- 1.5.6 Far away from high frequency & noise condition.
- 1.5.7 Good ground connection.
- 1.5.8 Confirm the program data after install system, clear all program under uncertain condition and set up the necessary programs to meet user's needs after clearing all programs.

### 1.6 F9803 Trunk Card Connecting Instruction:

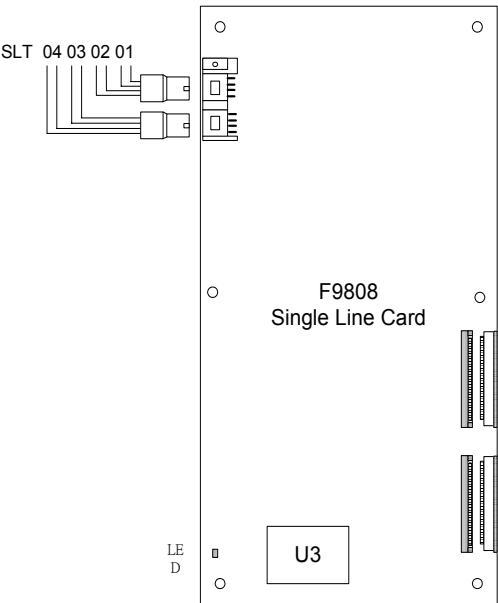


Remark: The KSU has to be connected with Ground when the trunk line is connected.

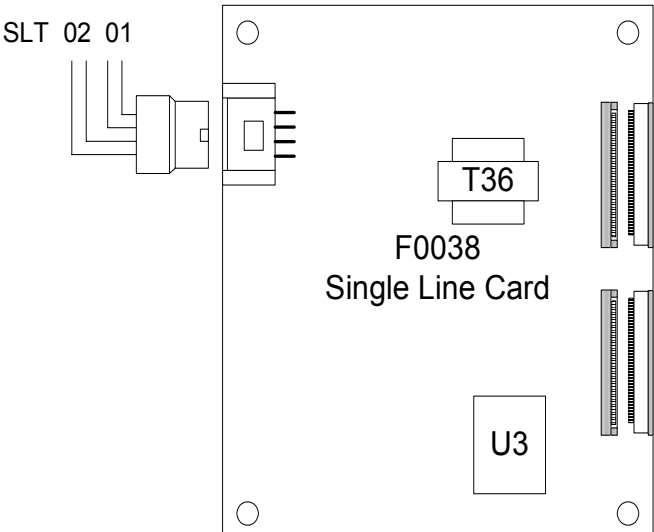
### 1.7 F9808 Single Line Card (8 Loops) Connecting Instruction:



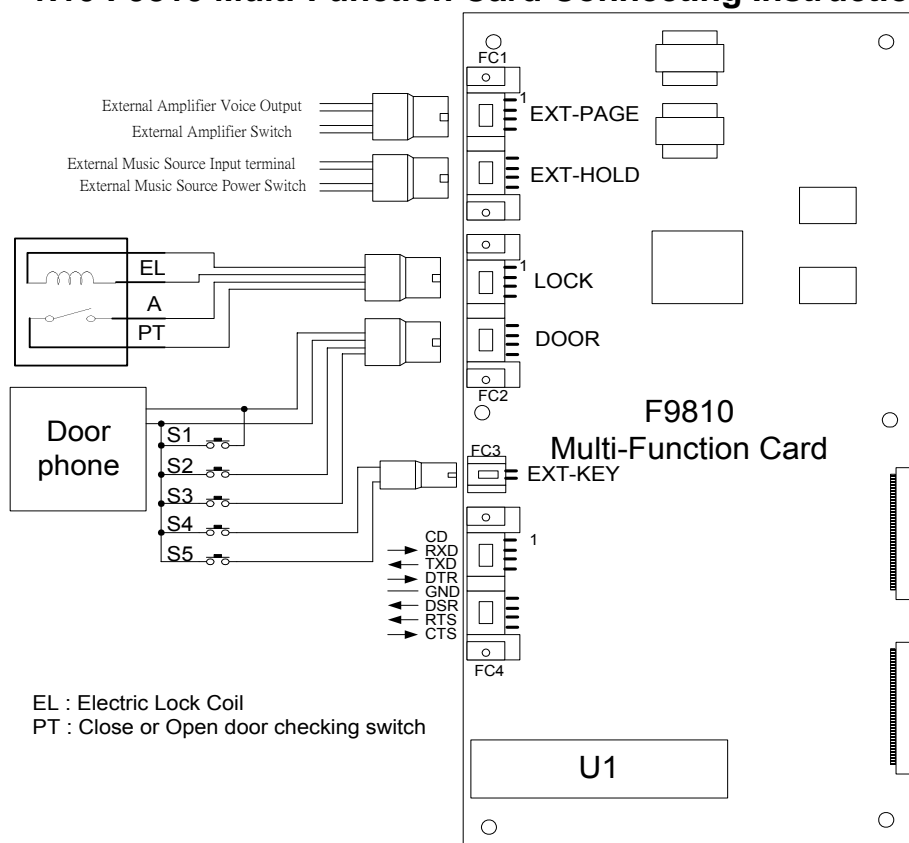
### 1.8 F9808 Single Line Card (4 Loops) Connecting Instruction:



### 1.9 F0038 Single Line Card (2 Loops) Connecting Instruction:



## 1.10 F9810 Multi-Function Card Connecting Instruction:



The cautions for installing external amplifier & external music source:

- Please use twist wire or isolating line for external amplifier & external music source connection. The relay switch can accept 500mA/30V only and please do not use it as AC power switch; otherwise there will appear the interfering noise.
- When the system starts operating the amplifier & external music source, the external amplifier & external music source switching relay will automatically turn "ON". When the system stops operating the amplifier & external music source, the external amplifier & external music switching relay will automatically turn "OFF".

### 1. Doorphone Installation:

Pin 5 & Pin 6 of FC2 on Multi-Function Card are for 2 wire doorphone connection. If it will be installed more keys, please do as above figure. There are 5 programmable ringing groups (S1-S5) on FC2 & FC3 terminal.

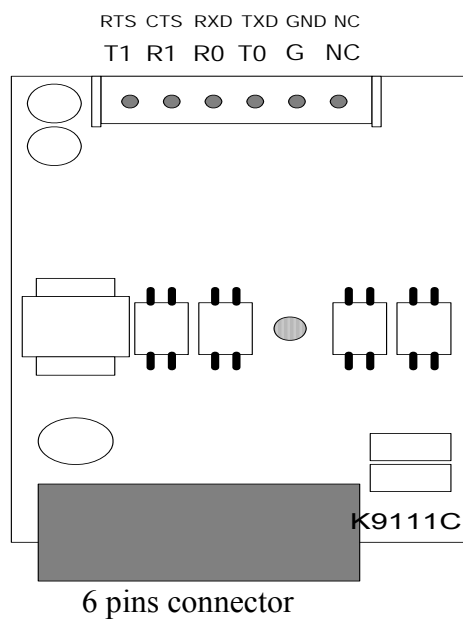
### 2. Electric Door Lock Installation:

Pin 1 of FC2 on multi-function card are for door lock connection (EL). EL is power supply terminal, it controls the DC electric lock directly. The electric door lock power source is supplied by ISDK system, do not supply external power. Pin 4 of FC2 on Multi-Function Card are for close or open door checking switch (PT). Pin 2 & Pin 3 of FC2 are the same connection point (A).

### 3. RS-232C serial interface on FC4 of F9810 multi-function card connecting instruction:

System	two ways connection		one way simple metering with handshake		one way simple metering		Computer RS-232	
Pin		25pins	9pins		25pins	9pins		Pin
CD(1)								
RXD(2)	←	2	3		2	3		TXD
TXD(3)	→	3	2	→	3	2	→	RXD
DTR(4)	→	6	6		6	6		DSR
GND(5)	→	7	5	→	7	5		GND
DSR(6)	←	20	4	←	20	4		DTR
RTS(7)	→	5	8		5	8		CTS
CTS(8)	←	4	7	←	4	7		RTS

## 1.11 K9111C RS-232 Card connecting instruction:

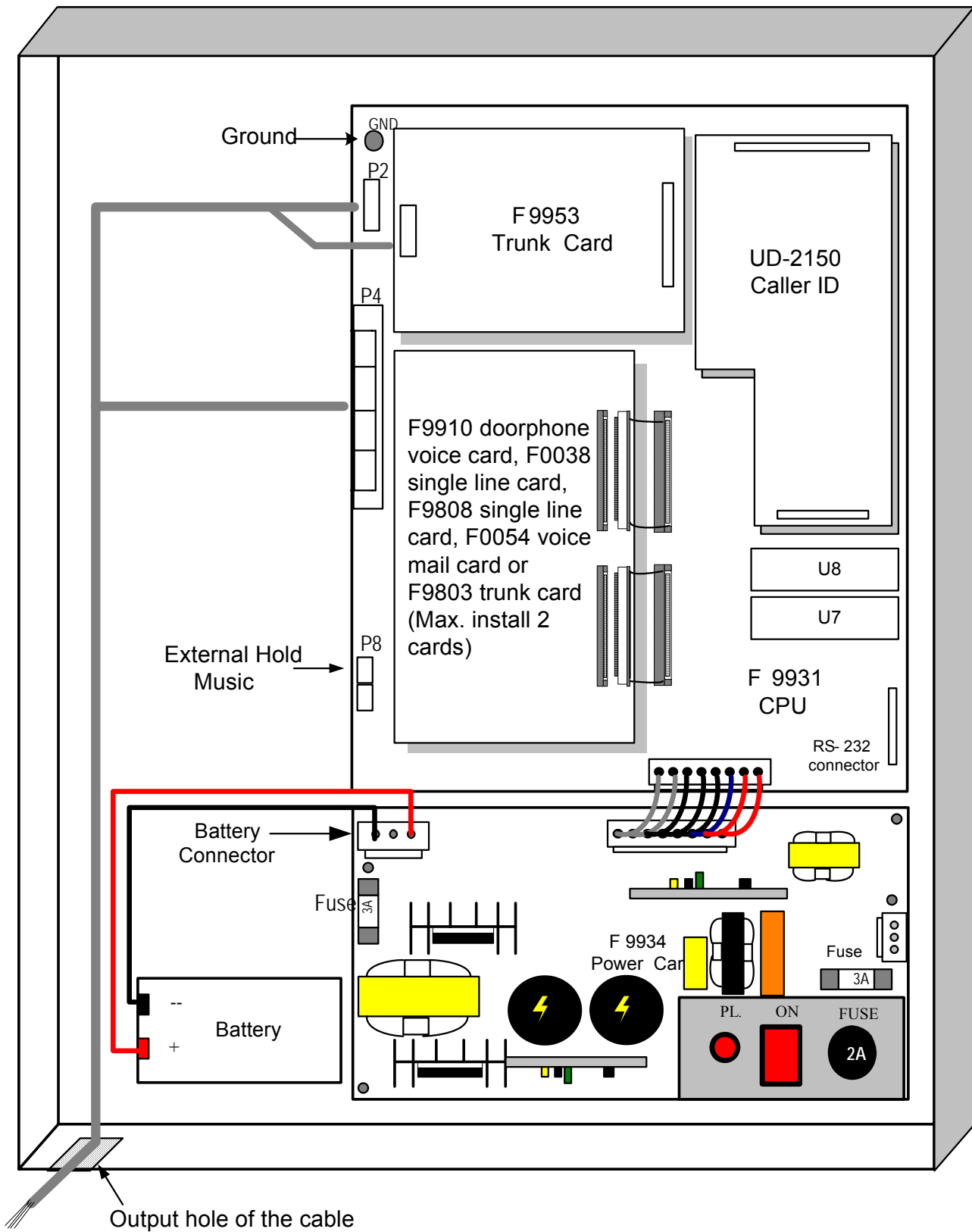


### Remark:

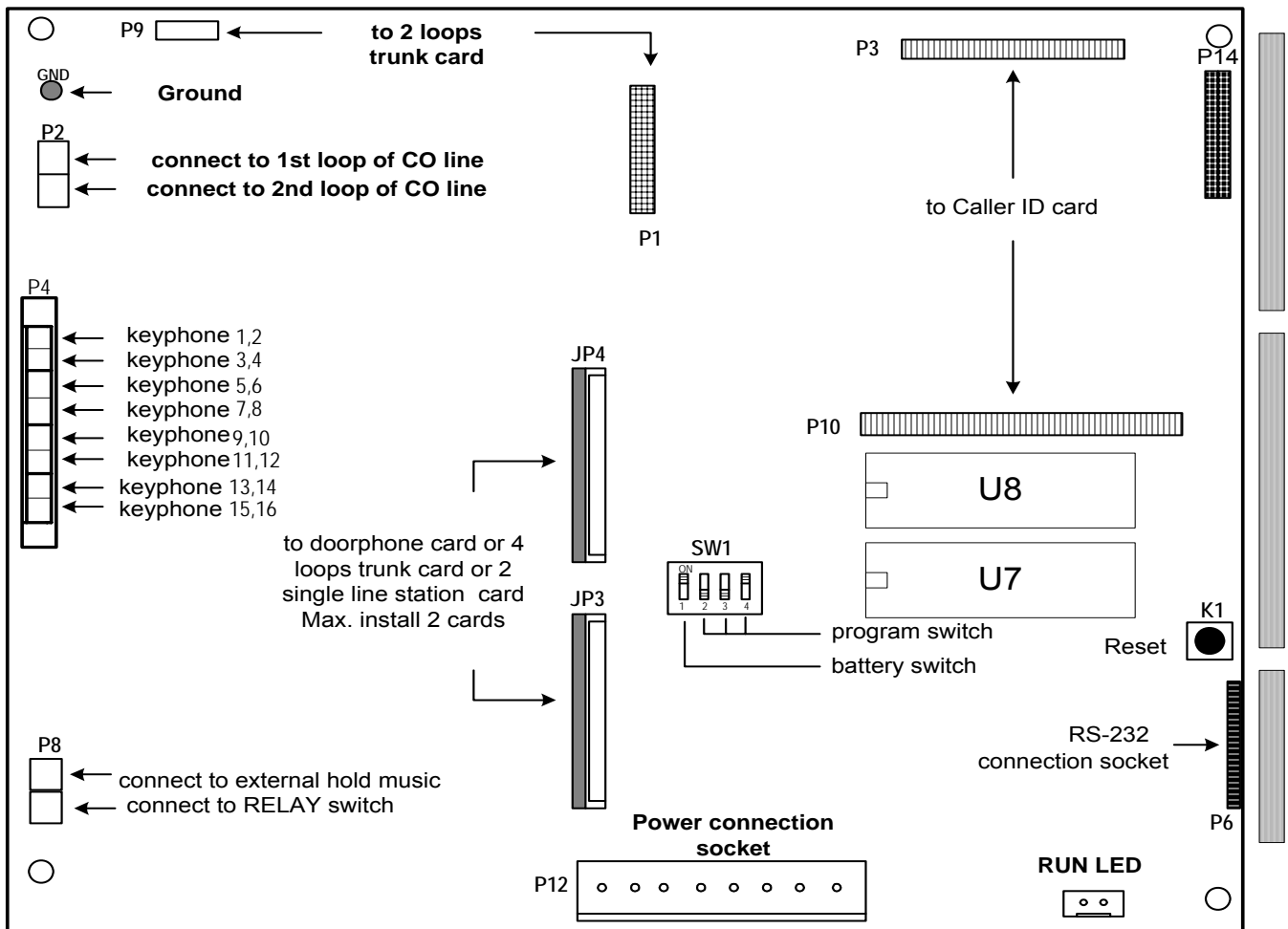
1. Please use the isolation wire to prevent interference.
2. When installation, please notice the direction of PIN.

System	Two ways connection			One way simple metering with handshake			One way simple metering			Computer RS-232
Pin		25 pins	9 pins		25 pins	9 pins		25 pins	9 pins	Pin
RTS	→	5	8		5	8	□	5	8	CTS
CTS	←	4	7	←	4	7	□	4	7	RTS
RXD	←	2	3		2	3		2	3	TXD
TXD	→	3	2	→	3	2	→	3	2	RXD
GND	—	7	5	—	7	5	—	7	5	GND
	□	6	6	□	6	6	□	6	6	DSR
	□	20	4	□	20	4	□	20	4	DTR

## 1.12 ISDK-26 System Connection Figure



### 1.13 F9931 ISDK-26 CPU Card Connecting Instruction:



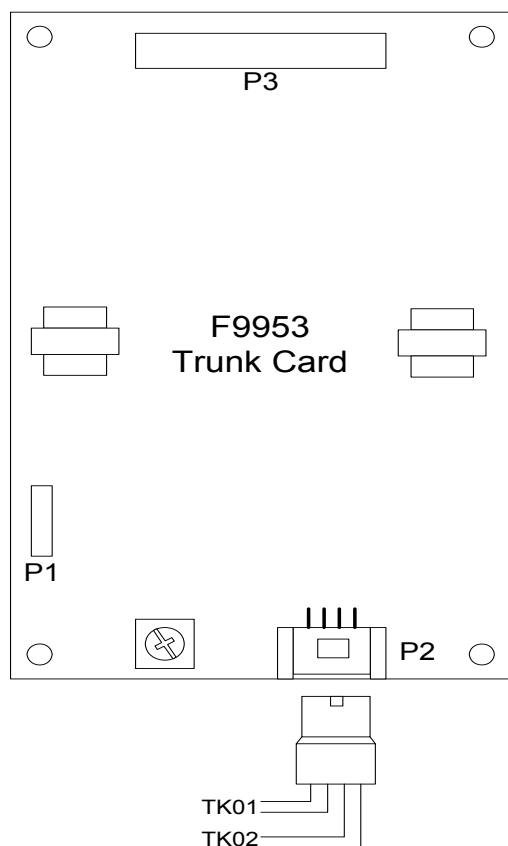
### F9931 CPU

#### Remarks:

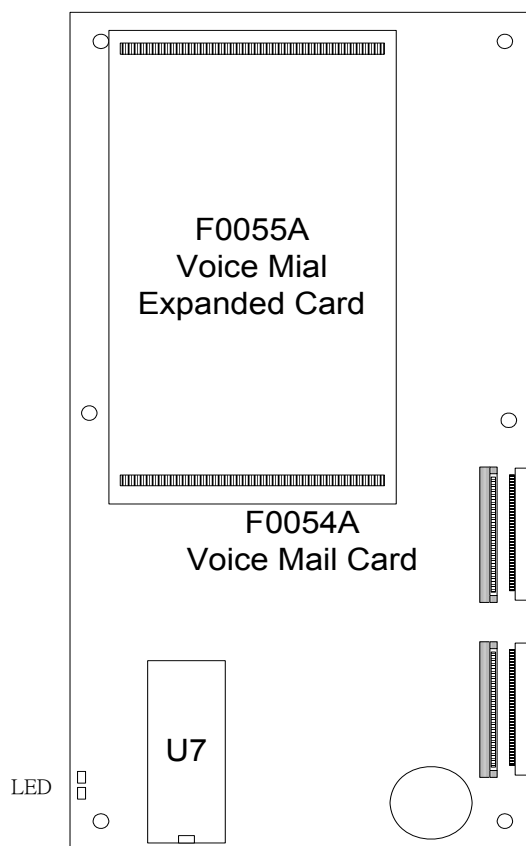
1. P1, P9 are 2 loops trunk card sockets which is connected to F9953 trunk card.
2. P2 is PTT CO line connection socket which is connected to PTT CO line.
3. P3, P10 are Caller ID sockets which is connected to UD-2150 Caller ID card.
4. P4 is digital station socket which is connected to digital station by 2 wires twist connection.
5. P6 is RS-232C socket which is connected RS-232C card. Notice the pin direction while installing.
6. P8 is External hold music & External hold music relay switch connection socket which is connected to External Hold Music.
7. P12 is Power connection socket which is connected to F9934 power card.
8. JP3, JP4 are the connection sockets for F9910 doorphone voice card, F0038 single line card, F9808 single line card, F0054 voice mail card or F9803 trunk card. Max. install two cards. (It only can install one F9910 doorphone card.)
9. SW1 DIP Switch 1: The battery switch of CPU memory. Must turn the switch ON to keep complete data during the system working time  
 DIP Switch 2 ON: The programmed station can make the programming (the initial value 2656)  
 DIP Switch 3 ON: Key phone stations can be programmed "password". (the initial value":....)  
 DIP Switch 4 ON: All key phones stations can be programmed "password" or the initial value: 2656 to enter programming.  
**If DIP Switch 2, 3 off, DIP Switch 4 on open system or press the "Reset" key to clear all setting data.**



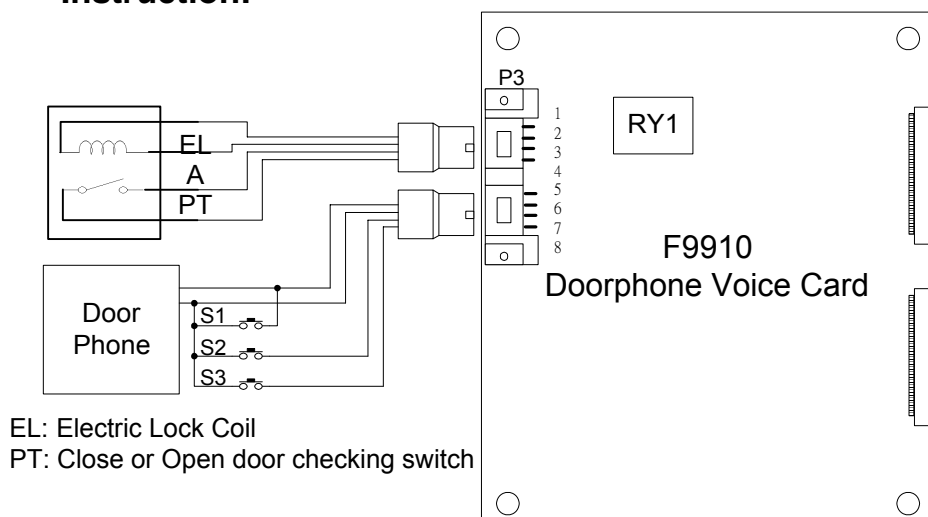
### 1.14 F9953 Trunk Card Connecting Instruction:



### 1.15 F0054A Voice Mail Card Connecting Instruction:



### 1.16 F9910 Doorphone Voice Card Connecting Instruction:



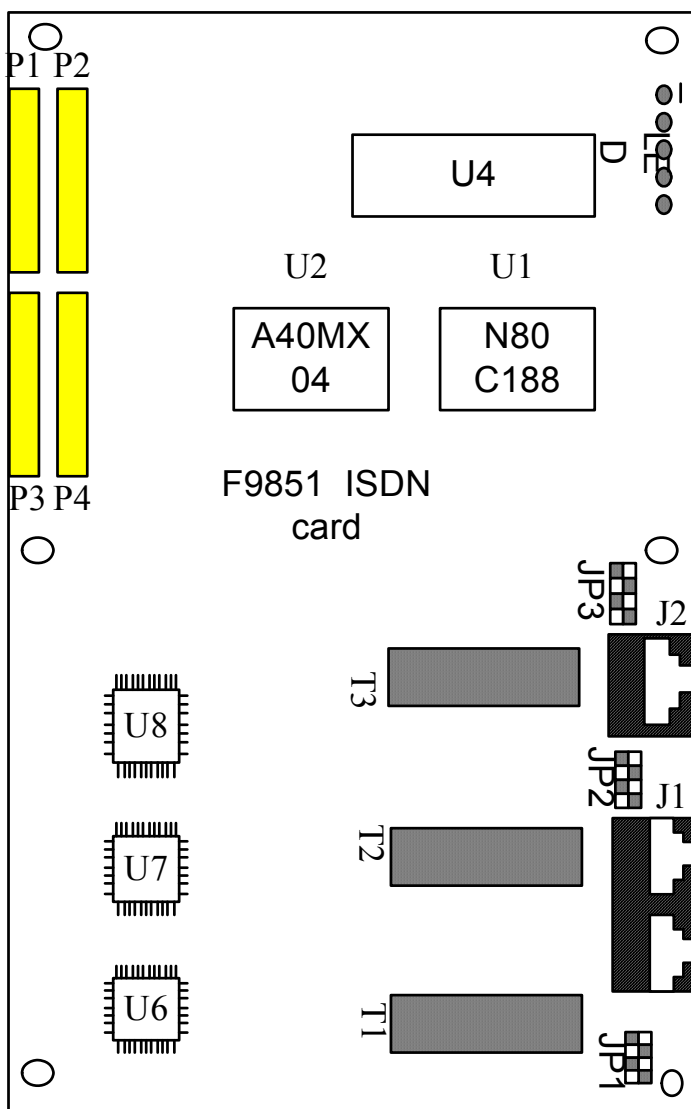
#### Doorphone Installation:

Pin 5 & Pin 6 of P3 on doorphone voice card are for 2 wire doorphone connection. If it will be installed more keys with doorphone key, please do as left diagram. There are 3 programmable ringing groups (S1-S3) electric door lock installation.

#### Electric Door Lock Installation:

Pin 1 of P3 on doorphone voice card are for door lock connection (EL). **EL** is power supply terminal, it controls the DC electric lock directly. The electric door lock power source is supplied by ISDK system, do not supply external power. Pin 4 of P3 on doorphone voice card are for close or open door checking switch (PT). Pin 2 & Pin 3 of door lock are the same connection point (A).

## 1.17 F9851 ISDN-BRI Card Connecting Instruction:

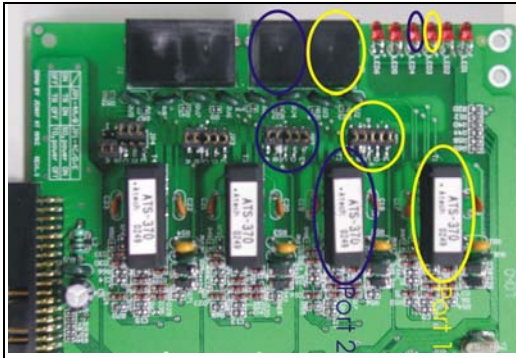


1. J1, J2 Terminal connects with 2/3 loops of ISDN-BRI trunk line (4/6 channels).
2. The installation instructions:
  - 2.1 ISDK-26 KSU can install max.2 pcs of ISDN-BRI card.
  - 2.2 ISDN-BRI card does not adopt the NT1 power and supply the power source, either.
  - 2.3 JP1-JP3:
 

JP1-3 (A,B): Terminal Resistance ON (close)/ OFF (open) switch (JP1 is port 1,...)

JP1-3 (C,D,E): S0 (Station, close) / T0 (Trunk, open) interface select (JP1 is port 1)
  - 2.4 Please use the "Twist Pair" wire for ISDN card connection.
    - 2.4.1 Subject to the sequence of connection pin.
    - 2.4.2 To meter the polarity reversal. (refer to 1.20.1, Wire configuration, Figure 1)

### 1.17.1 Hardware: Location / Description of each port:



Location/Description of each port:

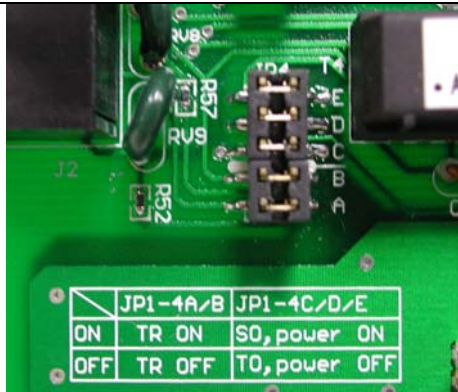
**LED 1: System Run LED**

**LED 2: ISDN Software Run LED**

**LED 3-6: Every port of physical active indicate LED (LED 3 is port 1, ...)**

**JP 1-3 (A,B): Terminal Resistance ON (close) OFF (open) switch (JP1 is port 1,...)**

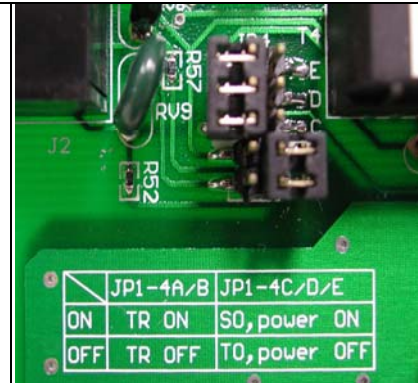
**JP 1-3 (C,D,E): S0 (Station, close) / T0 (Trunk, open) interface select (JP1 is port1, ...)**



S0 selected, TR on

**S0:** When JP1-4(C/D/E) is close, please see the wire configure as Figure 1. Every port can be connected with eight (8) pcs of TE (Terminal Equipment), but it only provides 24V power limit to two (2) TE for the power protection, and then TR(Terminal Resistance) only one for more TE.

**Notice: Don't short. The carrier line can't connect to S0 or S0 can't connect to S0.**



T0 selected, TR Off

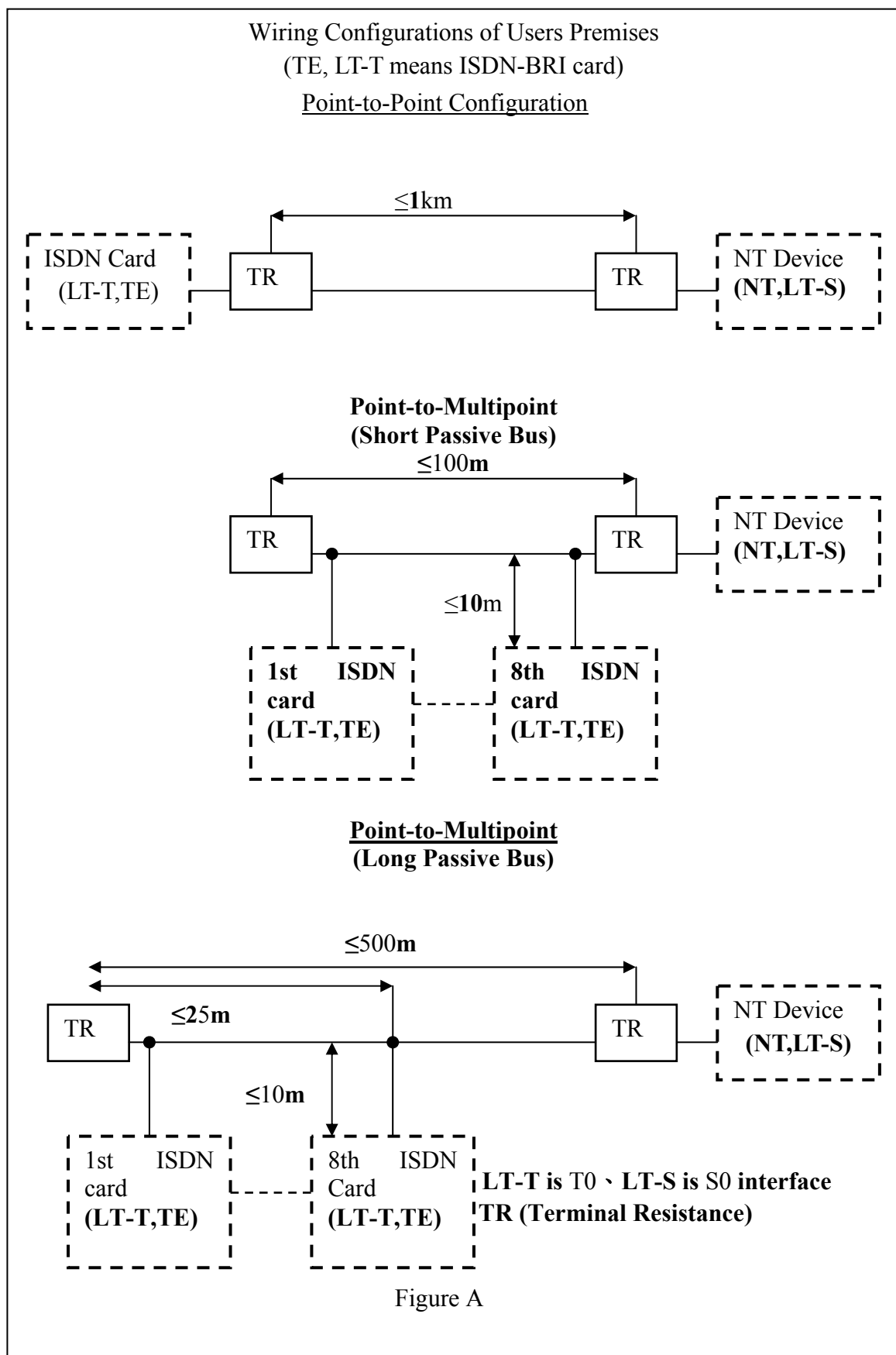
**T0:** When JP1-4 (C,D,E) is open , please see the wire configure as Figure 1.

#### Wire Configure

NT1		T0 (RJ45)		S0 (RJ45)		TE
3	—————	3		3	<del>—————</del>	3
4	—————	4		4	<del>—————</del>	4
5	—————	5		5	<del>—————</del>	5
6	—————	6		6	<del>—————</del>	6

Figure 1: same color of wire is the pair

### 1.17.2 Wiring Configurations of Users Premises



## 1.18 F9851 ISDN-BRI Card Supplementary Service and Programming

The F9851 ISDN-BRI card provides 2/3 ports of ISDN-BRI and each BRI for 2 voice channels. It also can provide 4/6 continuous Trunk (4/6 CO line keys). As for the CO line program on F9851 ISDN-BRI card, only for programming on 1st, 3<sup>rd</sup>... uneven CO line key.

### 1.18.1 Supplementary Service Description

#### 1.18.1.1 MSN (Multi Subscriber Number)

DDI (Direct Dial-In): Direct dial-in the station no. of private PBX through ISDN CO line. The users can apply the MSN for one port of ISDN-BRI to set the required multi-subscriber numbers and incoming directive of MSN. (ex. for operator, station no...etc.) Different MSN/DDI can have different incoming action.

**Remark:** Firstly, users must apply MSN/DDI from the local Telecom, then programming each MSN and its incoming directive).

#### 1.18.1.2 Caller ID number (Max.16 digits of each number) checking

To set program kind 3 item 84 to be "32" and the prefix code can be decreased or increased for ISDN CO incoming.

System: Press "SPD" key → "PAGE", press ▲ or ▼ of "Volume" key

Individual: Press "SPD" key → "HOLD", press ▲ or ▼ of "Volume" key

#### 1.18.1.3 CLIP (Calling Line Identification Presentation)

CLIR (Calling Line Identification Restriction)

COLP (Connected Line Identification Presentation)

COLR (Connected Line Identification Restriction)

- ◆ According to ISDN keypad protocol to input the "Setting Value" for program, cancel, inquire the corresponding with ISDN service function, because the "Setting Value" is different for different areas. So please firstly find out the "Setting Value" of each service function first and set the service function on keyphone.

**The "Service" function key on each station is limited by "Limited/Allowed Dialing Table" (because engage the trunk line on keyphone).**

**The LCD on the phone set will appear the message to be known if the programming is successful or not.**

- ◆ CLIP/R, COLP/R, call forwarding have to apply from the local Telecom firstly. Then, set the program kind 3 item 89-91. For using COLP/R, it needs to program kind 3 item 91.

#### 1.18.1.4 Point to point (PTP): One port on ISDN card only connects to one port of terminal equipment. (program one port of ISDN card, TR on)

Point to multipoint (PTM): One port on ISDN card connects to multi-point of terminal equipment. (program multi-port of ISDN card, one port TR on, BRI only)

#### 1.18.1.5 A/u Law program (ITU-T G.711 specification)

Adopt 3 programming types of hardware, software and programming.

#### 1.18.1.6 Dialing way of ISDN CO line

- ◆ En-Bloc: ("Service" function key refer to the programming item and the setting value as per the local Telecom.)
  1. Normal Dialing: Catch ISDN CO line → dial out telephone no.
  2. Subaddress Dialing: Catch ISDN CO line → dial out telephone no. + "Service" key → subaddress no. → "Service" key
  3. Service Operation: Catch ISDN CO line → "Service" key → [\*][#][7][7][#] (setting value) → "Service" key
- ◆ Overlap:
  1. Normal Dialing: Catch ISDN CO line → dial out telephone no.
  2. Service Operation: Catch ISDN CO line → "Service" key → [\*][#][7][7][#] (setting value)

**Remark:** "\*#77#" is the setting value of Taiwan "Call Forwarding" function.

1.18.1.7 AOC (Advice of Charge): The number of unit for dialing-out and it will be displayed on keyphone. (The local Telecom must supply this service)

1.18.1.8 The UD-2151 card does not supply and use the power source of PS1 & PS2, so it is needless for power source of NT1.

### 1.18.2 Supplementary Service Example for T0

#### 1.18.2.1 MSN/DDI program

- ◆ Kind 3, item 57-64: Total 8 sets, max.16 digits of each set. (the 1st key press "\*" key to clear)
- ◆ Kind 3, item 65-72: Total 8 sets, max.4 digits of each set. (the 1st key press "0" key to clear)
- ◆ Kind 3, item 76-83: Total 8 sets, max.4 digits of each set.
- ◆ Kind 26, item 00-99: Total 100 sets, max.4 digits of each set. (DDI incoming directive)  
When setting MSN/DDI, the corresponding incoming directive must be programmed. (e.g. the kind 3 item 57 matches to kind 3 item 65) Only the setting number of MSN/DDI can be incoming because the incoming line of MSN/DDI can filtered automatically.  
When the called telephone no. didn't send from the local Telecom, the programming is decided by program kind 3 item 10. For setting MSN/DDI, the area code is according to the local Telecom. (e.g. in Taiwan, if the telephone no. is **02-66240949**, only set the number to be "**66240949**".)

Group	MSN/DDI No.	Incoming Directive	Group Setting	Remark
1st	<b>MSN/DDI 1 (kind 3 item 57)</b>	kind 3 item 65	kind 3 item 76	1. Group setting: "9999" or "default". Match to kind 3 item 4 (Day) & item 5 (Night). 2. Group setting: 0-99 group Match to kind 2 item 35 (Day) & item 36 (Night).
2nd	<b>MSN/DDI 2 (kind 3 item 58)</b>	kind 3 item 66	kind 3 item 77	
3rd	<b>MSN/DDI 3 (kind 3 item 59)</b>	kind 3 item 67	kind 3 item 78	
4th	<b>MSN/DDI 4 (kind 3 item 60)</b>	kind 3 item 68	kind 3 item 79	
5th	<b>MSN/DDI 5 (kind 3 item 61)</b>	kind 3 item 69	kind 3 item 80	
6th	<b>MSN/DDI 6 (kind 3 item 62)</b>	kind 3 item 70	kind 3 item 81	
7th	<b>MSN/DDI 7 (kind 3 item 63)</b>	kind 3 item 71	kind 3 item 82	
8th	<b>MSN/DDI 8 (kind 3 item 64)</b>	kind 3 item 72	kind 3 item 83	

- Ex. 1. Telephone no."66240949" + "L806" → The station no.806 will ring directly.  
2. Telephone no."66240949" + "L55" → The port no.55 of DISA unit will ring directly.  
3. Telephone no."66240949" + "F168" + "9999" → Refer to the above remark 1  
4. Telephone no."66240949" + "F168" + "33" → Refer to the above remark 2, the 33th ringing group  
5. Not setting MSN/DDI or no number from the local Telecom → Refer to kind 3 item 10  
6. Setting MSN/DDI, the incoming line can be filtered. If the different MSN/DDI, the line is not allowed incoming.  
7. Telephone no."66240949" + "806" (subaddress) → The station no.806 will ring directly.  
(Refer to the subaddress dialing way  
(Remark: Users can catch the "ISDN CO line" to call out with "subaddress" and get the DDI function easily without application.)  
8. Telephone no."662409" (DDI=>49) + "F172" + kind 26 item 49 = "L806"  
→ The station no.806 will ring directly from DDI.  
9. Telephone no."6624094" (DDI=>9) + "F172" + kind 26 item 90~99 + kind 21 item 22

#### Kind 26:

Item	90	91	92	93	94	95	96	97	98	99
Set (Ext.)	L20	L22	L24	F168	L26	L28	L30	L32	L34	F168

#### Kind 21: item 13~22 is DDI Hunt Mode .

Item	13	14	15	16	17	18	19	20	21	22
DDI code	0	1	2	3	4	5	6	7	8	9

- If kind 21 item 22 set '0', then kind 26 item 90 is first to 99 of sequence for incoming ring.  
(Incoming first is ring to L20, second is ring to L22, reject incoming when station is busy.)  
→ If kind 21 item 22 set '1', then kind 26 item 90 is always incoming ring, reject incoming when station is busy.

#### 1.18.2.2 Point to point (PTP)/Point to multipoint (PTM) program (default: 0)

Refer to program kind 3 item 87. The setting value of PTP is 0-63, the setting value of PTM is 64-126. For PTP, the value is usually set to be "0". When programming, the port is used, the setting value is valid until this port is released.

#### 1.18.2.3 A/u Law program (default: 0)

- ◆ Refer to program kind 3 item 56. The setting value is 0-3. All CO keys need to be set.  
If the setting value is "0" or "1", A/u Law is decided by the ISDN card.  
If the setting value is "2", u Law is decided by the "Programming".  
If the setting value is "3", A Law is decided by the "Programming".
- ◆ When the incoming call, the A/u Law is decided by the ISDN software.  
If the setting value is "2" or "3", you do not set the value after resetting the system.  
If the setting value is "0" or "1", the value is decided after resetting the system.

#### 1.18.2.4 Service function key program on keyphone (Refer to kind 2 item 46)

Ex. Num: 200 ITM:046

↓ ↓ (press "1" + operation code + "HOLD" key)  
Key: 10 Fun: F 148\_

Num: 201 ITM:046  
↓ ↓ (When cursor is at "F148", press "0" to clear it)  
Key: 10 Fun: \_

#### 1.18.2.5 F9851 ISDN-BRI card hardware/software version checking

##### Match to service function key (F149)

- ◆ ISDN software version: Catch ISDN CO line → press "1" → "Service" key
- ◆ ISDN hardware version: Catch ISDN CO line → press "2" → "Service" key

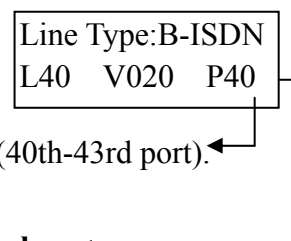
#### 1.18.2.6 the checking way of CO key on F9851 ISDN-BRI card

Enter program kind 6 → use "VOLUME" key to check → Display

The P40-P43 is the current position of 4 continuous CO line keys (40th-43rd port).

Then, press "40" on keyphone to see which CO key is LED on.

**"B-ISDN" → BRI ISDN trunk; "ITrunk" → ISDN Analog trunk**



#### 1.18.2.7 EN-Bloc/Overlap program (default:0)

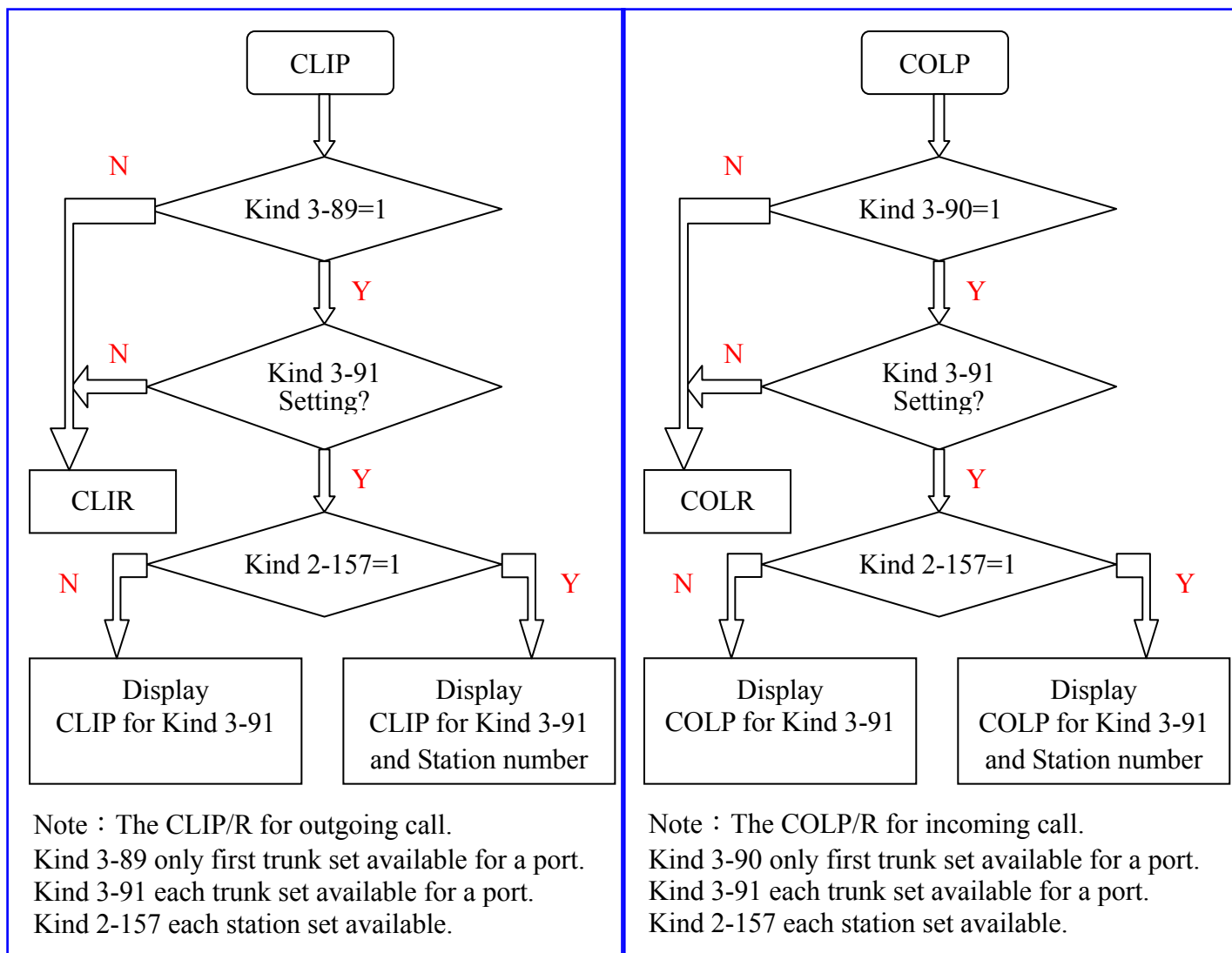
Refer to program kind 3 item 88. When programming, the port is used, the setting value is valid until this port is released.

#### 1.18.2.8 CLIP/R and COLP/R program

**Ex. Kind 2-157=0, station 806 engage trunk 1 to outgoing (Kind 3-91=3750002), So CLIP is 3750002.**

**Kind 2-157=1, station 806 engage trunk 2 to outgoing (Kind 3-91=3750035), So CLIP is 3750035806.**





**Reference: Choose Kind 3-116 and Kind 3-117 conform to the standard protocol of country.**

Ex. Bulgaria is Kind 3-116=0 and Kind 3-117=1.  
(Only first trunk set available for a port.)

	ISDN Number Plan Mode (Default = 0 , Kind 3 item 116)		ISDN Number Plan_Identification (Default = 1 , Kind 3 item 117)
0	unknown	0	unknown
1	international number	1	ISDN/Telephone numbering plan
2	national number	2	data numbering plan
3	network specific number	3	telex numbering plan
4	subscriber number	4	national standard numbering plan
5	addreviated number	5	private numbering plan
6	reserved for extension	6	reserved for extension

#### 1.18.2.9 other programs

- ◆ If set kind 8 item 6 to "xxx-222" (xxx: any value), it is a dialing tone of system for ISDN CO line. If not setting "xxx-222", it is a dialing tone of local Telecom fro ISDN CO line (e.g. "222-233")
- ◆ Set kind 3 item 84 to be "32" and the prefix code can be decreased or increased for ISDN CO incoming. (**Match to kind 14**)

Ex. If the Caller ID telephone no. "2\*266240378" is set,  
the number no. will be changed to be "9966240378".  
(2\*: national number, 0\*-7\*: according to the ITU-T/ETSI specification) ◀

CT: 00L00C02*
Del: 03 +99

#### 1.18.3 Supplementary Service Example for S0

##### ■ PGM Kind 2 :

- ✧ Item 149 : A/u Law (same as kind 3 item 56, refer 1.18.2.3)
- ✧ Item 150 : PTP/PTM (same as kind 3 item 87, refer 1.18.2.2)
- ✧ Item 104 : Receiving volume
- ✧ Item 106 : Transmission volume

##### ■ Station number : Every port can set 2 station numbers on kind 6 because of ISDN standard 2B+D. (Ex. 70 and 71 are 2 station numbers)

##### ■ Dialing way : Only En-Bloc

##### ■ CLIP/CLIR : Only CLIP

##### ■ COLP/COLR : Only COLP

##### ■ Other program : No MSN/DDI

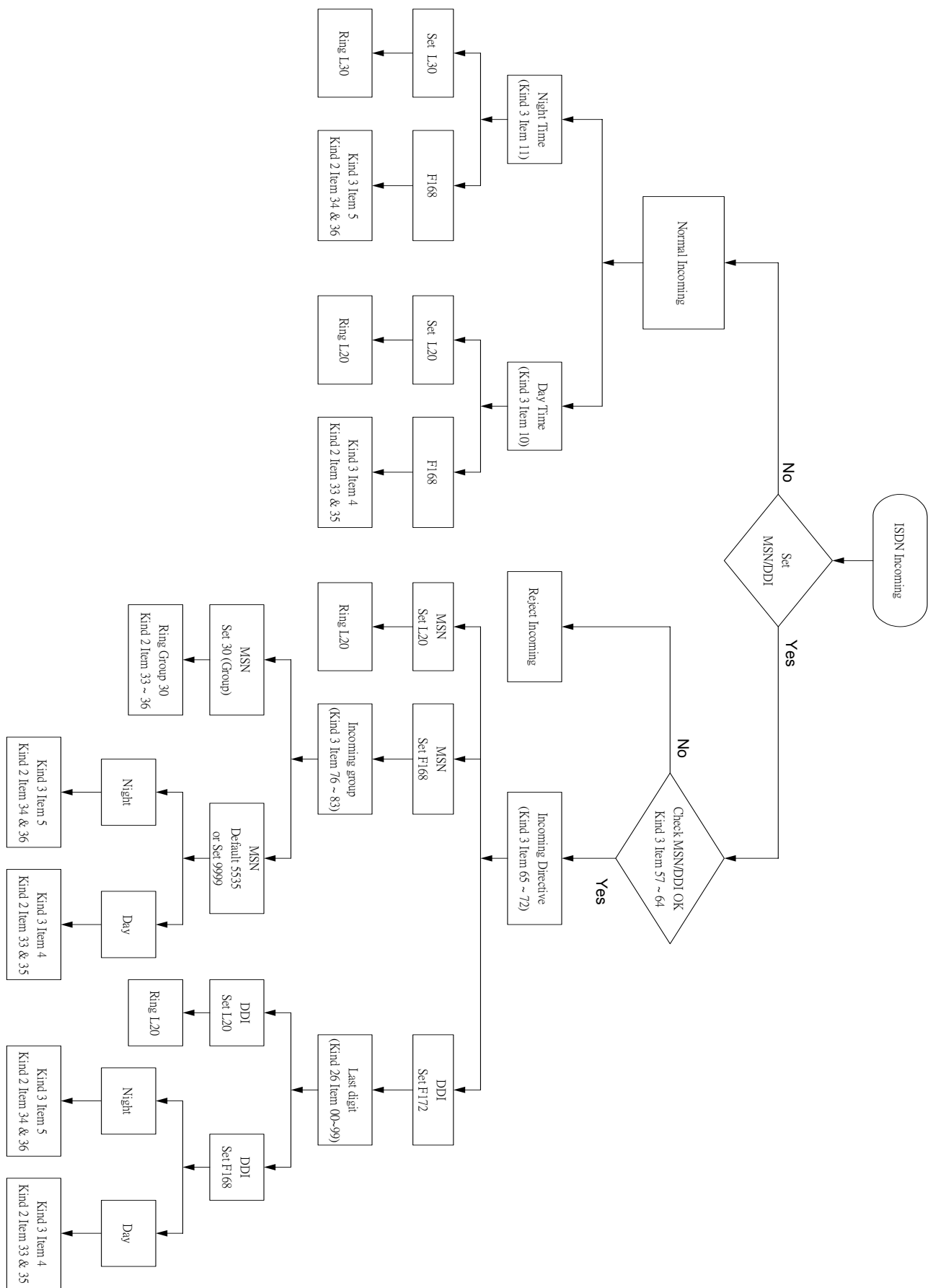
##### ■ Supplementary Services :

- ✧ Call Station : Engage S0 line and hear dial tone to input the station number.
- ✧ Catch Trunk Line : Engage S0 line and hear dial tone to input "0" or "9"
- ✧ Resume/Suspend : works by TE function key
- ✧ Hold : works by TE Hold key. Under this condition, B channel is released temporarily.
- ✧ Call Transfer : Press "HOLD" key to notify another station to receive the call
- ✧ Alarm setting : Engage S0 line and hear dial tone to input operation code plus time. (Ex. \*51200 alarm at 12:00)
- ✧ Call Forwarding : Engage S0 line and hear dial tone to input the operation code plus destination. (Ex. \*3120 is forwarded to 20, \*30 is disable)
- ✧ Speed Dialing : Engage S0 line and hear dial tone to input the operation code and set. (Ex. #01 is speeding dialing group 1)
- ✧ Individual pick-up : Engage S0 line and hear dial tone to input the operation code plus station number. (Ex. \*7806 is to pick up the station number 806)
- ✧ Group pick-up : Engage S0 line and hear dial tone to input operation code. (Ex. \*6)

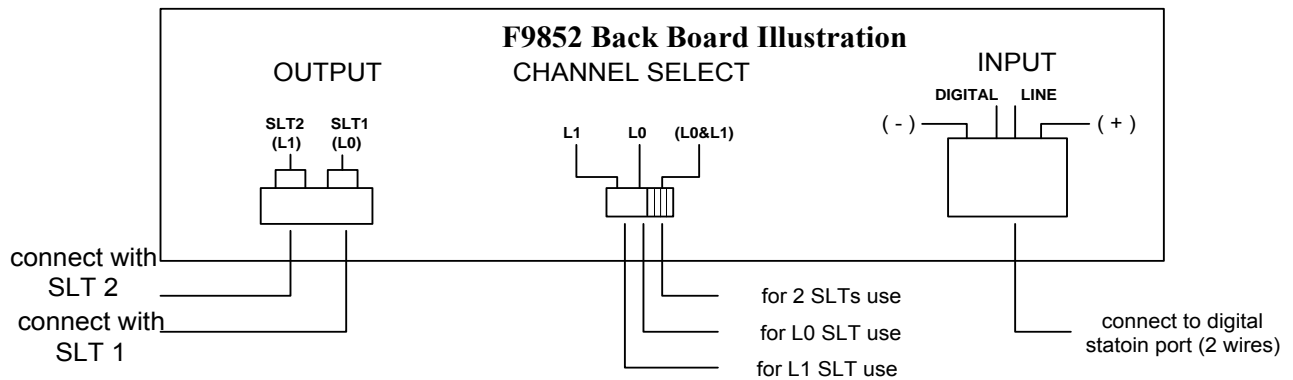
Line Type : B-S0
L70    V050    P70

↓  
**1<sup>st</sup> station number**

1.18.4 ISDN Incoming Flowchart

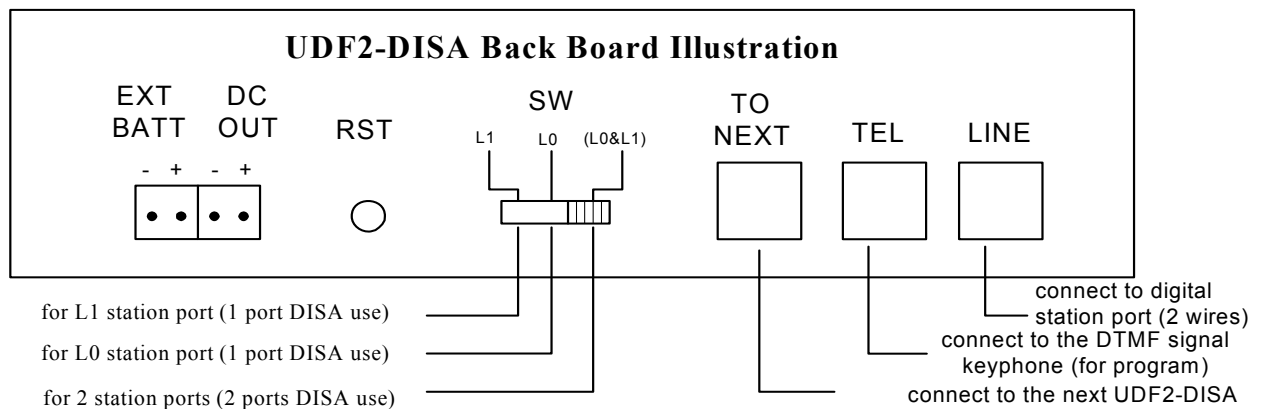


### 1.19 F9852 2 SLT-Converter (Analog Adapter) Installation:



Remark: When installing, the max. distance from KSU is 10m. The max. distance between single line telephone and single line port is 200m.

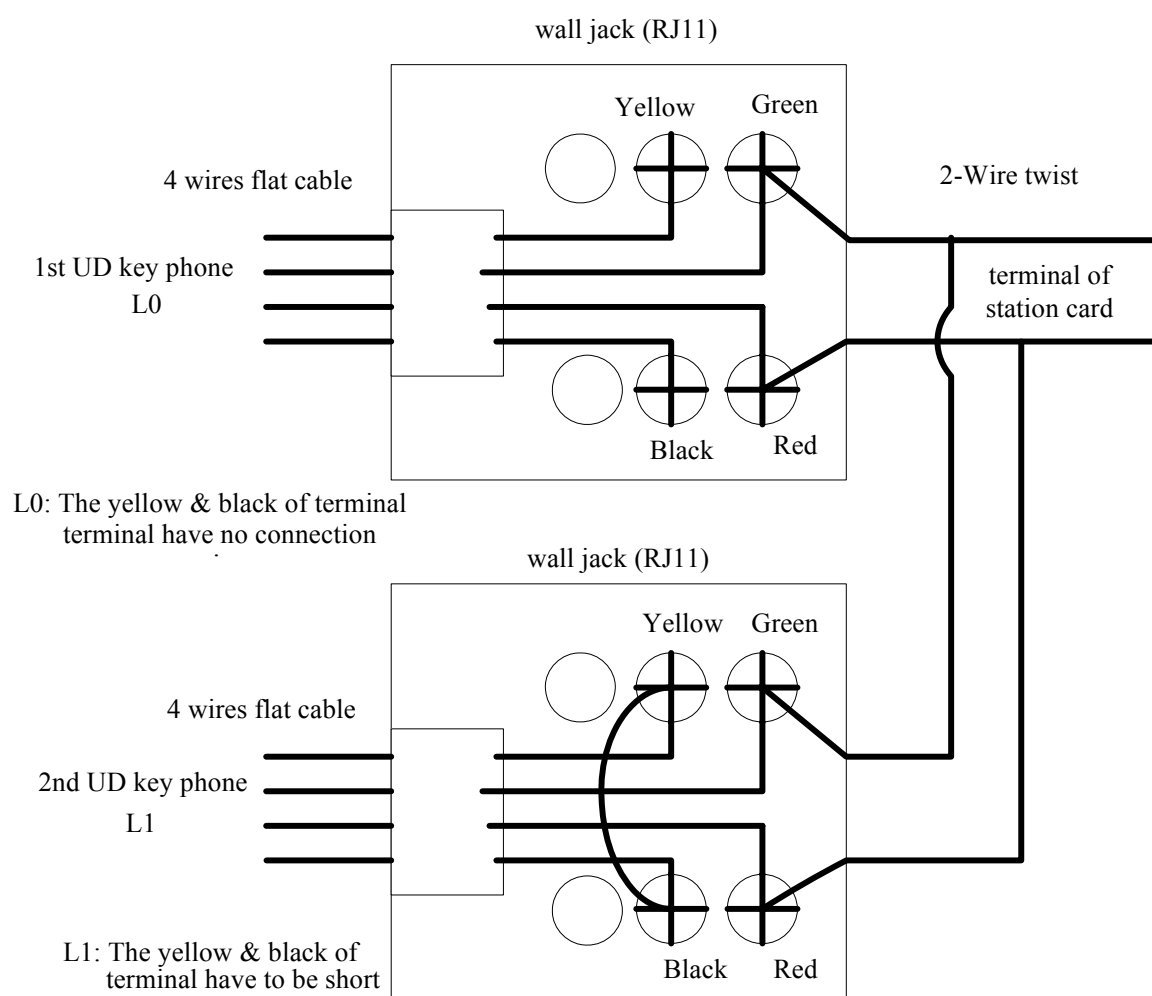
### 1.20 UDF2-DISA Installation:



Remark:

1. When installing, the max. distance from KSU is 10m.
2. Please refer to UDF2-DISA programming manual.

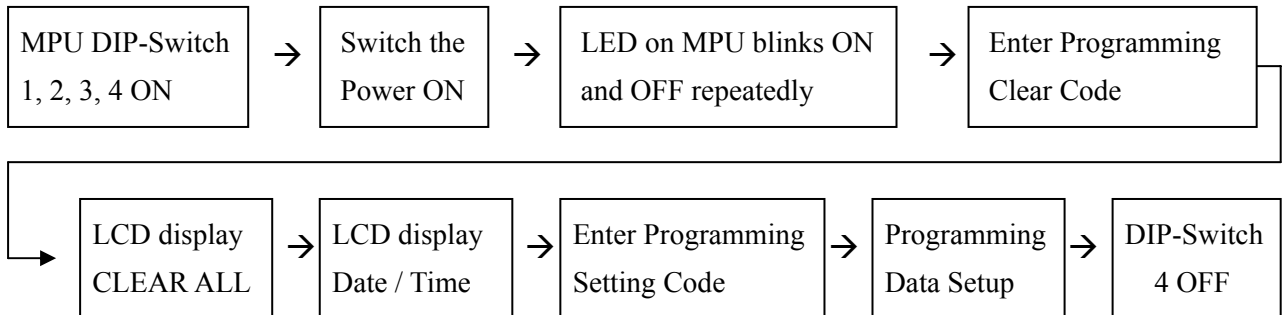
## 1.21 The connection instruction of different numbers of ISDK digital key telephones:



## 2. PROGRAMMING GUIDE

### 2.1 PROGRAMMING INSTRUCTION

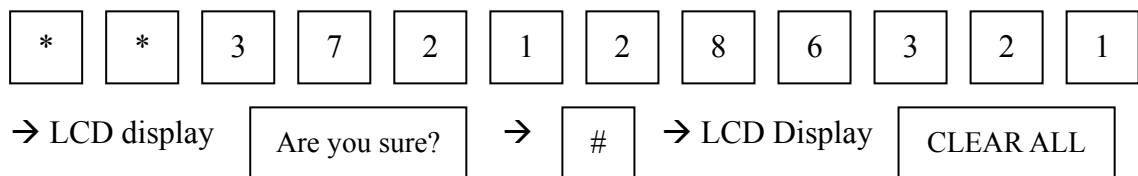
After installing the ISDK system, please proceed the following steps for the first programming.



### 2.2 Programming Clear Mode:

**2.2.1 Method 1. Enter the programming clear code (\*\*3721286321) to clear all setting data to be as the default.**

After power "ON", within 15 minutes, please press **SPKR** → **HOLD** (Press twice within one second)

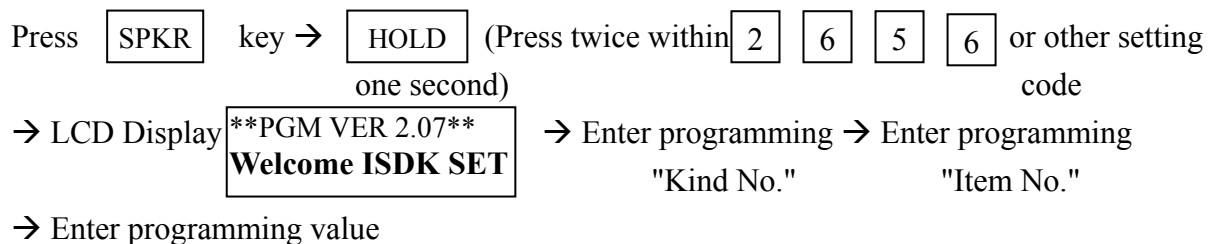


**2.2.2 Method 2. On the F9801 MPU card or F9931 MPU card, to make DIP-Switch 2, 3 OFF and DIP-Switch 4 ON, then press "Reset" key → CLEAR ALL → To make DIP-Switch 1, 2, 3 ON and DIP-Switch 4 OFF, to prepare for the new programming.**

### 2.3 Programming Setup Mode:

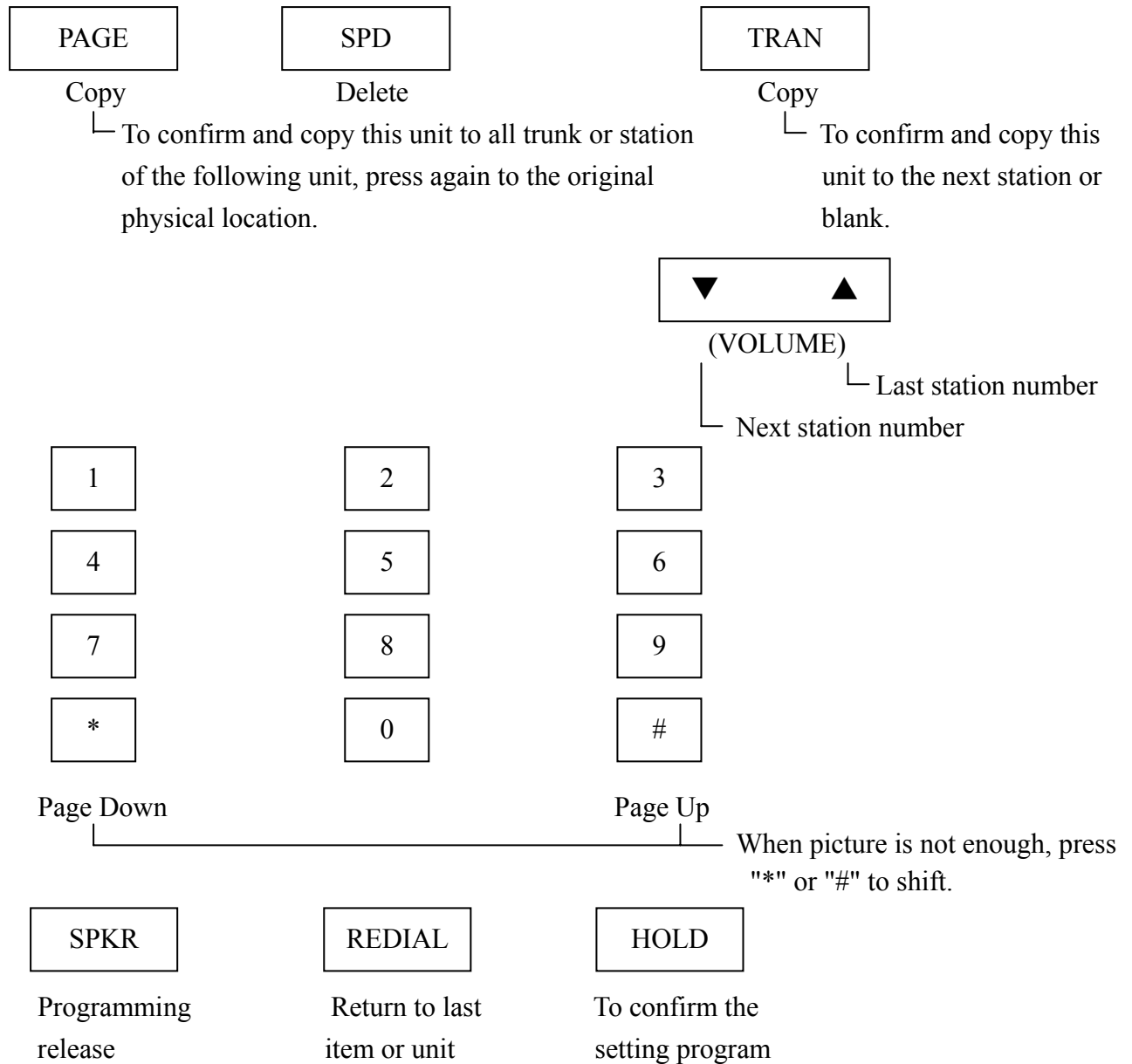
Enter programming setting code (2656) to set up required programming data. To enter the programming kind number at first, then enter the required item.

#### Operation



Remarks: **PGM VER 2.07** means "VERSION 2.07 of the programming software". It will be updated without notice.

### 2.3.1 The meaning of each function key for programming



## 2.4 SYSTEM PROGRAM : Kind 1

Operation : press [SPKR] → [HOLD] (press twice within one second) → enter [2][6][5][6] or other setting password → enter programming kind [1] → [HOLD] → enter programming item no.

Item	Description	Default	Instruction
00			
01	Day/Night transfer type	0	0: No auto night transfer 1: Only system auto night transfer (not include the station service class) 2: Only station service class night transfer 3: Auto night transfer for system & station service class If the system does not be divided the time to Day and Night, it is not need to setup all programming items for night service class. Remark: The priority for night transfer → manual night transfer type (kind 1 item 2) → monthly auto night transfer type (kind 1 item 95) → weekly night transfer type for holiday (kind 1 item 60) → night transfer type for noon rest time (kind 1 item 63) → auto night transfer type (kind 1 item 1). Related program: kind 1 item 2, 6-7, 60, 63, 95
02	Manual night transfer type	0	0: Null (According to program kind 1 item 1, 60, 63, 95) 1: Only system night transfer 2: Only station service class night transfer 3: Night transfer for system & station service class (The value is same as function no.64)
03	Page prelude tone	0	0: No 1: Yes Match to function no.161 for paging on keyphone.
04	Page coda tone		
05	Night transfer password	4477	Set 4 digits code by using "0 – 9", "*", "#". If the setting value is "0", it is not need to input the password when it will start the night transfer (function no. 64) and call forwarding - CO to CO (function no. 23)
06	Beginning time of day service class	0800	24-hour system (hhmm)
07	Ending time of day service class	1700	
08	DTMF tone duration time	0080	60-9999 ms The sending time of DTMF dialing can be programmed.



### Kind 1 (09-21)

Item	Description	Default	Instruction
09	CO recall time	210	(1-9999) x 10 ms For analog CO line, match to function no.95
10	CO flash time	28	(1-9999) x 10 ms For analog CO line, match to function no.94
11	Pause time	1000	1-9999 ms For speed dialing, the display "W" (waiting) means to wait for a while as per the default or the setting time.
12	Time display form on display keyphone	0	0: SEP. 17 THU 09:01 (24-hour system) (Month/Day/Week/Hour:Minute) 1: 17 SEP. THU 09:01 (24-hour system) (Day/Month/Week/Hour:Minute) 2: 09-17-3 09:01 (24-hour system) (Month-Day-Week Hour:Minute) 3: 09-17-3 09:01:01 (24-hour system) (Month-Day-Week Hour:Minute) 4: SEP. 17 THU 09:01 (12-hour system) (Month/Day/Week/Hour:Minute) 5: 17 SEP. THU 09:01 (12-hour system) (Day/Month/Week/Hour:Minute) 6: 09-17-3 09:01 (12-hour system) (Month-Day-Week Hour:Minute) 7: 09-17-3 09:01:01 (12-hour system) (Month-Day-Week Hour:Minute)
13	Camp-on time for busy station	30	0-9999 seconds (0: No limit) Remark: When the CO line is transferred to a busy station, no body answers after the camp-on time. Related program: kind 3 item 17, kind 8 item 43
14	Assigned re-called station when alarm time is over	----	Enter station no.
15	Assign hold recall station	----	Enter station no. Related program : kind 2 item 85, kind 3 item 16 - 17
16	Assign camp-on recall station	----	Enter station no. Related program: kind 3 item 18
17	Interval time of warning tone on speaking	0	0-9999 seconds 0: disable With the warning tone for each interval time during speaking. Related program: kind 2 item 122, kind 8 item 43
18	Interval time of alarm re-ringing	0	0~9999 seconds When the alarm ringing, press "HOLD" key to stop it. It will ring again after the setting time.
19	No-answer time before transfer re-call	60	0-9999 seconds 0: No stop Related program: kind 3 item 18, kind 8 item 43
20			
21	Holding time before hold re-call	60	0-9999 seconds 0: No recall Related program: kind 2 item 85, kind 3 item 18, kind 8 item 43

### Kind 1 (22-34)

Item	Description	Default	Instruction										
22	Waiting time for dial tone after hunting CO line	1000	1-9999 ms The duration from hunting CO line to hearing the dialing tone.										
23	Ringling time before call forward	15	0-9999 seconds                    0: No forward When station A calls station B, station B no answers and transfer to its forwarding station after the setting time. Related program: kind 2 item 8-9										
24	Ringling time of busy stations reservation	30	0-9999 seconds                    0: No stop The station A reserves the busy station B. After station B hangs up, the station A starting ringing. If set the ringing duration time, the ringing will stop when the setting time is over.										
25	Alarm ringing time	60	0-9999 seconds                    0: No stop										
26	The longest time of power supply for door lock	150	(60-9999) x 3.333 ms The station A talks to the doorphone. When the station press " # " to open the door (refer to kind 1 item 68), the duration from the power supply 24V to door lock. (If door lock using AC only, it needs to install the relay.) Remark: Only for system with the doorphone interface or DHVR door phone voice card.										
27	Mode for hunting station	0	0: Circulation hunting (First CO – Last CO) 1: To hunt from the 1st STA Counter 2: To hunt from the last STA Counter 3. Circulation Hunting (Last CO – First CO) Related program: kind 2 item 73, function no. 43										
28	Time unit of tone break bit	200	164-9999 ms Related program: kind 8, kind 18										
29	Inter-digit time of CO pulse dialing	210	1-9999 x 3.333 ms TRK to PBX. When analog CO line is pulse dialing, it is interval time of "Digit to Digit".										
30	Automatic trunk line hunting mode	0	0: Circulating hunting (First CO– Last CO) 1: To hunt from the 1st CO line 2: To hunt from the last CO line 3. Circulation Hunting (Last CO – First CO)										
31	Programming Password	2656	4 digits code. The DIP SW2 on the CPU must be "ON".										
32													
33	Limited /Allow dialing table for 2nd class: City call service class LC2=0: <table><tr><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td></td><td></td><td></td></tr></table>	0	1	2	3	4	5	6				0123456 ...	For outward dialing restriction, match to program kind 7 (Limited/Allow dialing table) setting value: 0-8 0-5: Limited table 6-8: Allowed table
0	1	2	3	4	5	6							
34	Limited /Allow dialing table for 3rd class: National call service class LC3=0: <table><tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td></td><td></td><td></td><td></td></tr></table>		1	2	3	4	5					.12345 ...	There are 30 sets of number in each table. Related program: kind 3 item 12
	1	2	3	4	5								

### Kind 1 (35-44)

Item	Description	Default	Instruction																																																																																																				
35	Limited /Allow dialing table for 4th class: International call service class 1 LC4=0: <table><tr><td></td><td></td><td>2</td><td>3</td><td>4</td><td>5</td><td></td><td></td><td></td><td></td></tr></table>			2	3	4	5					..2345...	For outward dialing restriction, match to program kind 7 (Limited/Allow dialing table) setting value: 0-8 0-5: Limited table 6-8: Allowed table There are 30 sets of number in each table. Related program: kind 3 item 12																																																																																										
		2	3	4	5																																																																																																		
36	Limited /Allow dialing table for 5th class: International call service class 2 LC5=0: <table><tr><td></td><td></td><td></td><td>3</td><td>4</td><td>5</td><td></td><td></td><td></td><td></td></tr></table>				3	4	5					...345...																																																																																											
			3	4	5																																																																																																		
37	Limited /Allow dialing table for 6th class: International call service class 3 LC6=0: <table><tr><td></td><td></td><td></td><td></td><td>4</td><td>5</td><td></td><td></td><td></td><td></td></tr></table>					4	5					....45...																																																																																											
				4	5																																																																																																		
38	Limited /Allow dialing table for 7th class: International call service class 4 LC7=0: <table><tr><td></td><td></td><td></td><td></td><td></td><td>5</td><td></td><td></td><td></td><td></td></tr></table>						5					.....5...																																																																																											
					5																																																																																																		
39	Opening system speed dialing table for over class of service (OCS) <table><tr><td>OCS=0:</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>OCS=1:</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>OCS=2:</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>OCS=3:</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>OCS=4:</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>OCS=5:</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>OCS=6:</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>OCS=7:</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>OCS=8:</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>OCS=9:</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>	OCS=0:										OCS=1:										OCS=2:										OCS=3:										OCS=4:										OCS=5:										OCS=6:										OCS=7:										OCS=8:										OCS=9:										0123456789 789	OCS 0: 0123456789  ↓  OCS 9:0123456789  Each table has 10 groups such as Group “0” including 00, 01..09, Group "1" including 10....19. Related program: kind 1 item 70, kind 2 item 39- 40
OCS=0:																																																																																																							
OCS=1:																																																																																																							
OCS=2:																																																																																																							
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OCS=8:																																																																																																							
OCS=9:																																																																																																							
40	Manager password	0000	0000: Invalidity Available value: 4 digits This password is used for the best class. All limited stations can be dialed any class of CO call by entering this password.																																																																																																				
41	RS-232 baudrate	1200	300-19200 BPS If install K9111C card, it has the isolated circuit interface. (Max. 4800 BPS)																																																																																																				
42	RS-232 transmission form	...34567	Default: 8 bit, 2 stop bit, even parity. <div><div><div>34567</div><div><div></div><div></div><div></div><div></div><div></div></div></div><div>[6x] is 7 bit, [67] is 8 bit mode 2 stop bit/1 stop bit enable parity/no parity even/odd parity</div></div>																																																																																																				
43	Interval time of warning tone when handset is not well on-hook	0000	0-9999 seconds      0 : Not available When the station is off-hook, the warning tone will be heard for each setting interval time.																																																																																																				
44	Music source on hold	1	0: From external source 1: From original system Related program: kind 8, kind 1 item 100																																																																																																				

### Kind 1 (45-59)

Item	Description	Default	Instruction
45	Auto-redial interval time	20	0-9999 seconds
46	Auto-redial frequency	9	0-200 times
47	Inter-digit time of SLT pulse dialing	90	10-9999 x 3.333 ms (SLT to PBX)
48	The shortest time of single line telephone flash	45	10-9999 x 3.333 ms The min. flash time for when the single line telephone pressed "HOOK".
49	The longest time of single line telephone flash	105	10-9999 x 3.333 ms The max. flash time for when the single line telephone pressed "HOOK".
50	The monitor time of trunk line dialing	12	0-9999 seconds The duration from dialing the prefix digit to the last digit of the telephone number. It is for re-dialing, dialing limited and simple counterling.
51	Delay time for picking the CO line to hearing the dialing tone	000	000-255 x 100msec
52	Starting bill calculation confirmation for outgoing call	03	0-30 digits. After pressing the setting key, the system will start to calculate the call bill, then print the simple account. For incoming call, it is subject to the digit number of Caller ID.
53	Starting bill calculation confirmation for incoming call	03	If the program kind 3 item 25, 74 = 1 and the digits of telephone number from Caller ID >= setting value, the simple counterling will be sent from RS-232.
54			
55			
56	Waiting time for overriding the busy station	10	0-9999 seconds 0: Warning Tone only. The overrider can not talk with the overridden party until the overridden party press "TRAN" key within the waiting time, but the override can speak to the overridden party directly when the waiting time out. When overriding the busy station, it is subject to the default or setting value. If setting value is "0", the overridden station only can hear the warning tone and start speaking by pressing "TRAN" key, otherwise the overriding party can not override the overridden party. Related program: kind 1 item 99, kind 2 item 22, 42-43, kind 8 item 37, function no. 90
57			
58	Beginning time of holiday	*61200	Week: Hour: Minute (24-hour system) Match to program kind 1 item 60
59	Ending time of holiday	*10800	Available setting: *61200 (Sat. 12:00 AM)- *10800 (Mon. 08:00 AM)

### Kind 1 (60-73)

Item	Description	Default	Instruction
60	Night transfer type for holiday	0	0: No auto night transfer (According to program kind 1 item 1-2, 63, 95) 1: System auto night transfer only 2: Station auto night transfer only 3: System & station auto night transfer Remark: The priority for night transfer → manual night transfer type (kind 1 item 2) > weekly night transfer type for holiday (kind 1 item 60) > night transfer type for noon rest time (kind 1 item 63) > Auto day/night transfer type (kind 1 item 1)
61	Beginning time of noon rest	1200	24-hour system (hhmm)
62	Ending time noon rest	1300	Match to program kind 1 item 63, 95
63	Night transfer type for noon rest time	0	0: No auto night transfer (According to program kind 1 item 1-2, 63, 95) 1: System auto night transfer only 2: Station auto night transfer only 3: System & station auto night transfer only
64	Interval time of incoming call warning on busy station	0000	0-9999 seconds    0 : only once. The system will send warning tone according to the setting interval time if the called station is busy. Related program: kind 2 item 122-123, kind 3 item 52, kind 8 item 40
65	CO line automatic hunting mode for PBX1	0	0: Circulation Hunting (First CO- Last CO) 1: Start to hunt from the first CO line
66	CO line automatic hunting mode for PBX2	0	2: Start to hunt from the last CO line 3. Circulation Hunting (Last CO- First CO) Related program: kind 3 item 24, 26
67	Alternate time of ringing tone	35	0-9999ms (programming music source 245 & 246)
68	Digit code for opening electric door lock	#	[0]-[9] or [*], [#]
69	Forwarded station status setup	0	0: Original station ringing 1: According to the setting of forwarded station Remark: match the external voice mail box
70	Max. numbers of system speed dialing	0090	System speed dialing + Individual speed dialing ≤ 2000 numbers Related : function no. 4, 163
71			
72	Max. numbers of individual speed dialing	0025	System speed dial + Individual speed dial x Station quantity ≤ 2000 numbers Related program: function no. 4, 163
73	Receiving volume of internal DTMF tone	34	00-63 scales (Standard value: 40, adjusted unit: 1 dB) For remote program: function No. 109-110 For internal test: function No. 111-115

### Kind 1 (74-90)

Item	Description	Default	Instruction
74	Min. receiving volume	30	00-63 scales (standard value: 40, adjusted unit: 1 dB)
75	Max. receiving volume	46	00-63 scales (standard value: 40, adjusted unit: 1 dB)
76	Beginning volume of auto increase ringing volume	20	00-63 scales (standard value: 40, adjusted unit: 1 dB) Related program: kind 1 item 77, kind 2 item 7, 37
77	Each scale time for auto increase ringing volume	1000	0-9999 ms (for digital keyphone only) Related program: kind 1 item 76, kind 2 item 7
78	Auto releasing CO line for no dialing completely	0	0: Not released 1: Released Related program: kind 1 item 50, 52 kind 3 item 12
79	Allow SPEAKER and handset hearing simultaneously	0	0: Not allowed 1: Allowed (The handset must keep suitable distance from SPKR when using this function to avoid echo noise.)
80	Continue to dial system speed dialing table during speaking	1	1: Not allowed 0: Allowed Set: The keyphone must set the function key (F4) and then enter the appointed group of System speed dialing. Use: During speaking on a CO call, press the F4 key to dial the number you have set continuously.
81	The class of account code 00-99 groups (Table 1)	03	Refer to kind 1 item 33-38 for setting class of service. Related program: kind 7, 11
82	The class of account code 100-199 groups (Table 2)	03	
83	The class of account code 200-299 groups (Table 3)	03	
84	The class of account code 300-399 groups (Table 4)	03	
85	Internal dialing tone volume	40	00-63 scales
86	Internal dialing tone volume of off-hook dialing	40	00-63 scales
87	Internal dialing tone volume of on-hook dialing	30	00-63 scales
88	Delete the repeated storing number of Caller ID	0	0: Not allowed 1: Allowed Programming time: When system has installed the Caller ID card or ISDN trunk card.
89	Select to use RS-232C interface	0	0: Use RS-232C card (K9111C) 1: Use ISDK MTFN card (F9810)
90			

### Kind 1 (91-106)

Item	Description	Default	Instruction
91	Queuing way	0	0:Auto-return to IDLE after active the queuing function, will notify after the communication ended 1:keep on waiting till the communication end and ringing directly.
92	Ringing times for doorphone	02	0-99 times Related program: kind 2, item 112, kind 3 item 29, kind 4 item 29
94	Auto call forwarding - CO to CO	0	0: No 1: Yes Refer to function no. 23
95	Monthly night transfer type	0	0: Refer to kind 1 item 1-2, 60 & 63 1: Only system auto night transfer 2: Only station class auto night transfer 3: Auto night transfer for system & station
96	Beginning time of monthly night transfer	010100	MMDDHH (Month/Date/Hour)
97	Ending time of monthly night transfer	010100	Refer to kind 1 item 95
98	Working mode of F0216 vocal card	0:.....	0: Manual 1: Auto (program kind 1 item 1) 2: Noon rest (program kind 1 item 63) 3: Week (program kind 1 item 60) 4: Month (program kind 1 item 95) P.S. When the system install vocal card (F0216), this item should be programmed.
99	Override working mode	0	0: Normal 1: Three-party conference (Both of two parties will hear the warning tone) It will become three-party conference when the override waiting time is over or the overridden party accepts the conference call. Related program: function no. 90, kind 1 item 56
100	Internal music on hold volume control	40	00-63 scales (standard value: 40, unit: 1dB)
101	Music on hold volume control for F0216 vocal card	40	00-63 scales (standard value: 40, unit: 1dB) Remark: The system should install F0216 vocal card.
102	Answering volume control for F0216 vocal card	40	
103			
104	Checking CM (check maintenance) before checking-in	0	0: No 1: Yes
105	Auto-start CS (check service) after checking-out	0	0: No 1: Yes
106			

### Kind 1 (107-118)

Item	Description	Default	Instruction
107	Unmarked some prefix called number digits of the selection on SMDR printing	0	0~31 digits Suitable for printing the simple counteracting at hotel. It can mark some dialing digits of the telephone number
108	Some last digits of the called number mark selection on SMDR printing	0	
109	Incoming directive for F168, the waiting time for busy station forwarding.	0	0: according to the setup of busy forwarding 1-9999sec: active busy forwarding after the setting time
110	DTMF waiting time	0	0~9999 seconds Remark: The value 0 means invalid. If beyond the setting time, it will execute the F168 incoming directive feature.
111	Printing type of RS-232 simple account	0	0: Normal 1: Different station printing (excluding the remove station features) Remark: When one station transfers the call to another station, it will print the call duration separately.
112	Max. group of call park	00	00-40 groups
113	Call-Park automatic working mode	0	0: Circulating hunting (First CO– Last CO) 1: To hunt from the 1st CO line Kind 3 Item 106 must be set as 1
114	Operation mode of idle call-park key	0	0: Invalid 1: CO line hunting 2: LCR hunting
115	Whether send the busy tone for auto-redial	0	0: No 1: Yes (For ISDN only)
116	Response mode for Voice mail	0	0: Direct forwarding, busy forwarding → automatic operator, No-answer forwarding → personal VM 1: Direct forwarding, busy forwarding, No-answer forwarding → personal VM 2: Direct forwarding, busy forwarding, No-answer forwarding → automatic operator 3: Direct forwarding, busy forwarding → personal VM, No-answer forwarding → automatic operator
117	Assigned a forwarded station when all group stations are busy.	-----	Please key in the assigned station/extension number
118	Whether allows to print details after pressing the account code (match to computer system, do not collide with SMDR)	0	0: Not allowed 1: Allowed (Print after pressing the "page" key twice)



### Kind 1 (119-135)

Item	Description	Default	Instruction
119	Whether allows printing the HELP function	0	0: Not allowed 1: Allowed (2.46- K22 –V009 - 9999) ex. K22, physical location: 009, 9999: HELP
120	Ringing time for HELP function	60	0-9999sec
121	Whether allows setting up the company name for the preceding 90 telephone numbers of dialing plan	0	0: Not allowed 1: Allowed
122	Select the function of Relay on CPU	0	0: The switch of external music on hold 1: The common ringing switch (For noisy place/ to control ringing or LED flash for incoming call)
123	Whether allows printing the DND status	0	0: Not allowed 1: Allowed
124	Change the printed time mode of the SMDR		0:STO:04/07/07 20 22 01 1234567 0000 03:11:04 00012 00000 1:STO:04/07/07 20 22 011234567 0000 03:11:37 00:00:10 2:STO:04/07/07 20 22 V016 1234567 0000 03:12:22 00008 00000 3:STO:04/07/07 20 22 V016 1234567 0000 03:13:02 00012 00000 4:STO:04/07/07 20 22 T001 1234567 0000 03:13:54 00011 00000 5:STO:04/07/07 20 22 T001 1234567 0000 03:14:29 00008 00000 6:STO:04/07/07 20 22 01 1234567 0000 03:15:04 00005 00000 7:STO:04/07/07 20 22 01 1234567 0000 03:15:34 00008 00000 8:STO:04/07/07 V000 V002 V001 61234567 0000 03:16:00 00:00:07 9:STO:04/07/07 V000 V002 V001 61234567 0000 03:16:35 00:00:06
125	Display who is talking with the called station or used CO line	0	0: Not display 1: Display
126	Don't have to hang up the phone to dial another station/outgoing number when calling a busy station	0	0: Allowed (default) 1: Not allowed
127	Start weekly for alarm	0	0=1=MON 2=TUE 3=WED...7=SUN
128	Direct forwarding mode for external voice -mail box	0	0: Old mode (standard mode) 1: According to the station setting
129	Whether use LCR function	0	0: Not allowed 1: Allowed (For ISDN only)
130	Whether send the Trunk line physical location with caller-ID for incoming call	0	0: Only send CID number 1: Send CID+TK physical location
131	Station call access is prior to CO call access	0	0: No 1: Yes
132	Delay count for External Voice Mail protocol sending code	00	00 – 10 x (Pause time (Kind 1, Item11))
133	Printing way of Account Code	0	0: Ignore the calling time of the transferred stations, print all time in the first receiver/caller 1: Print all receiver's/caller's calling time separately
134	Whether control calling time for Manager Password	0	0: Not limited the service class but limited calling time 1: Not limited the service class and calling time
135	Table A Max. checking groups of barring call	40	Table A: SPD00-SPD39 Table B: SPD40-SPD89

## 2.5 STATION LINE PROGRAM : Kind 2

Operation : press [SPKR] → [HOLD] (press twice within one second) → enter [2][6][5][6] or other setting password → enter programming kind [2] → [HOLD] → enter station line no. → [HOLD] → enter programming item no.

Item	Description	Default	Instruction
00	Station used status	0	0: Normal 1: Unused
01	Set "Do Not Disturb" function	0	0: Not allowed      1: Allowed Related program: kind 8 item 1, Function no. 11, 27-29
02	To fix the type of installed interface	0	0: Changeable 1: Prohibit changing Programming time: To avoid re-programming caused by misplacing the interface when changing the interface.
03	Ringing tone when call incoming	0	0: According to the call party. (match to kind 2 item 109) 1: According to kind 8 item 35 2 : According to kind 8 item 32 3 : According to kind 2 item 111-114 Programming time: For many stations, the ringing tone of every station can be discriminated.
04	Exclusive hold	0	0: Not allowed 1: Allowed (press "Hold" twice) Programming time: The held line is not allowed to catch by other party.
05	Catch CO line directly	0	0: Normal (according to the class of service) 1: To catch CO line directly by lifting handset. Match to kind 2 item 39 (the class of hot line = 0) item 47-48. Related program: kind 2 item 39-40, 44-45, 47-48, kind 3 item 2-3
06	Group pick-up	1	0: Not allowed 1: Allowed (to pick up the ringing station in the same group) Related program: kind 2 item 74-75 function no. 6-8
07	Ringing volume increased automatically	0	0: Normal 1: Increase automatically (Match to kind 1 item 76) Related program: kind 1 item 76, kind 2 item 37
08	Forwarded station on day time when the ringing time-out	----	Enter Station No. (match to kind 1 item 23) Press "FWD" key or operation code of function no. 2+ "7" + "station no. " Press " 6 " to clear it.

## Kind 2 (09-22)

Item	Description	Default	Instruction
09	Forwarded station on night time when the ringing time-out	----	Enter Station No. (Match to kind 1 item 23) Press "FWD" key or operation code of function no. 2 + " 9 " + "station no. " Press " 8 " to clear it.
10	Page making	1	0: Not accepted 1: Accepted
11	Page answering	1	0: Not allowed 1: Allowed
12	Page starting	1	0: Not allowed 1: Allowed Related function no. 3, 160
13	Page group	0000	0-9999 groups Program time: to page for different groups.
14	Page volume	40	00-63 scales (standard value: 40, unit: 1dB) The volume can be adjusted during paging.
15	Allowed making program	1	0: Not allowed                      1: Allowed Default: station no.200 & 201 are setting at " 1 ", the other stations are setting at " 0 ".
16	Call forward setting	1	0: Not allowed 1: Allowed
17	Voice announcement for alarm call	255	255: disable 19: Recoded voice announcement If the system installs with UDF2-DISA or voice mail card, the value can be set to be "19" for alarm call announcement.
18	Auto answer incoming CO by un-ringing station	0	0: Not allowed 1: Allowed (Match to kind 2 item 33-34 ) Related program: kind 2 item 33-34, kind 3 item 4-5, 10, 75-82, kind 4 item 11-23, function no. 168-171
19	System speed dealing	1	0: Not allowed 1: Allowed the station to set the system speed dialling table. Default: station no.200 & 201 are allowed. Related program: kind 1 item 39, 70, kind 2 item 39-40 function no. 4, 163
20	Full handsfree	0	0: Manual (press the "MIC" function key) Refer to function no.50. 1: Auto handsfree (press the "SPK" key to start handsfree feature) Related program: kind 2 item 21
21	Status of manual full handsfree	0	0: "MIC" function key OFF 1: "MIC" function key ON
22	Types of "Do Not Disturb"	0:....	2: Station line 3: CO line 4: Doorphone Related function no. 11, 27-29

## Kind 2 (23-38)

Item	Description	Default	Instruction
23	Personal password	0000	4 digits (0000: invalid)
24	All call forwarding	----	Enter station no. Press "FWD" key or operation code of function no. 2 + " 1 " + "station no. " Press " 0 " to clear it.
25	Day station group	0000	0-9999 groups Related function no. 7, 9, 13
26	Night station group	0000	Programming time: On day/night time, all stations can be divided to different groups.
27	Call forwarding for day busy station	----	Enter station no. Press "FWD" key or operation code of function no. 2 + " 3 " + "station no. " Press " 2 " to clear it.
28	Call forwarding for night busy station	----	Enter station no. Press "FWD" key or operation code of function no. 2 + " 5 " + "station no. " Press " 4 " to clear it.
29	Day group server	0	0: No 1: Yes (the server in the same group)
30	Night group server	0	If the setting value is " 1 ", please match to function no. 9, 13.
31	Day operator	0	0: No 1: Yes
32	Night operator	0	Match to function no. 10
33	CO line group which used for incoming call for day time	0:12345 67..	DIG=0:..... -> 9: ..... Match to "Day time incoming group" Related program: kind item 92-96, kind 3 item 4-5, 38, kind 4 item 4-5, 11-23 function no. 168-171
34	CO line group which used for incoming call for night time	0:12345 67..	NIG=0:..... -> 9: ..... Match to "Night time incoming group" Related program: kind item 92-96, kind 3 item 4-5, 38, kind 4 item 4-5, 11-23 function no. 168-171
35	Day time incoming call ringing group	0:12345 67..	Match to kind 2 item 33-34
36	Night time incoming call ringing group	0:12345 67..	
37	Ringing volume	40	00-63 scales (standard value: 40, unit: 1dB) Related function no. 54 For digital keyphone only.
38	Password lock class	1	0: Hot line 1: Intercom only 2-7 class → Match to kind 1 item 33-38, Function no. 15

## Kind 2 (39-53)

Item	Description	Default	Instruction
39	Day class	4	0: Hot line 1: Intercom only
40	Night class	2	2-7 class → Match kind 1 item 33-38
41	Check-out class for hotel function	1	0: Hot line 1: Intercom only 2-7 class → Match kind 1 item 33-38
42	Day override class	04	0-99 classes
43	Night override class		0: Not allowed
44	CO line group which used for making outgoing call for day time	0:12345 67	DGP=0:..... -> 9: ..... Match "Day time group" Related program: kind 2 item 25, 94-96, kind 3 item 2, 38, kind 4 item 2
45	CO line group which used for making outgoing call for night time	0:12345 67	NGP=0:..... -> 9: ..... Match "Night time group" Related program: kind 2 item 25, 94-96, kind 3 item 2, 38, kind 4 item 2
46	Flexible function key setup		The using of first code: [0]: unused            [1]: function [2]: station           [3]: CO line [4]: doorphone       [5]: physical location [6]: PBX1            [7]: PBX2 [*]: next key        [#]: last key If press [3] → set the trunk key automatically in sequence. If press [1]→ set the function key
47	Day hot line number	-----	Enter telephone number (press the 1st digit [*] for deleting.) Match to kind 2 item 5 and related function no.34 without class restriction.
48	Night hot line number	-----	
49	Open Electric Door Lock Control	1	0: Not allowed 1: Allowed Remark: The system needs to install F9910 doorphone voice card or F9810 multi-function card.
50	The 1st alarm setup	----	A. Entering time hhmm (Hour + Minute) (Enter " * " prior hhmm to delete it) Entering time *whhmm(W: weekday, enter 1 for Monday ..., 7 for Sunday) Related function no. 0, 68 and ALARM directive from RS-232
51	Speaking time limit for incoming call	0000	0-9999 seconds    0: No control Match to the other party's call control
52	Speaking time limit for outgoing call	0000	
53	DSS-1 physical location	----	Enter the 1st DSS physical location of the digital key telephone and the first DSS key: 000 must be set with this digital key telephone number.

## Kind 2 (54-65)

Item	Description	Default	Instruction
54	DSS-2 physical location	----	Enter the 2nd DSS physical location of the digital key telephone and the first DSS key: 000 must be set with this digital key telephone number.
55	DSS-3 physical location	----	Enter the 3rd DSS physical location of the digital key telephone and the first DSS key: 000 must be set with this digital key telephone number.
56	DISA Password	0000	0000: Invalid This program is only suitable of UDF2 DISA unit or voice mail card which used for the system.
57	Speaker phone MIC allow to be started by calling party directly	0	0: Not allowed 1: Allowed For full handsfree keyphone only.
58	Adjusted volume memory during speaking	1	0: Back to default (According to program kind 2 item 103-106) 1: Talking memory volume
59	Station start dialing mode	1	0: Slow (need to press "SPKR" or lift the handset before dialing) 1: Speed (it is available to press any key to start "SPKR") 2: Only DSS key speed 4-7 earphone mode UD-36TDHFE
60	Auto group pick-up	0	0: Manual (use function no. 8) 1: Lift the handset can pick up ringing phone of the same group automatically
61	Auto pick-up assigned ringing station	----	Enter the assigned ringing pick-up station no. Related program: kind 2 item 25-26
62	Telephone using kind	1	0: Hotel use (If the telephone is used for hotel room, it must set at " 0 " in order to match check in / check out) 1: General use or office use (CI & CO do not clear personal program data of each station.)
63	Allowed transfer	1	0: Not allowed 1: Allowed If the telephone is used for hotel or rent room, it should be set at "0" to prevent call bill transferring to the other station.
64			
65			

## Kind 2 (66-82)

Item	Description	Default	Instruction
66	Check In / Check Out for checking room status	0	0: According to the class of service 1: Check Out (Lock class) 2: Check In (Day class) Related program: kind 2 item 39-41, function no. 62-63
67	Whether accept day/night transfer after check-in	0	0: Not allowed 1: Allowed
68	The 2nd alarm setup	-----	A. Entering time hhmm (Hour + Minute) (Enter " * " prior hhmm to delete it) Entering time *whhmm(W: weekday, enter 1 for Monday ..., 7 for Sunday) Related function no. 73, 68 and ALARM directive from RS-232
69	The 3rd alarm setup	-----	
70	The 4th alarm setup	-----	
71	The 5th alarm setup	-----	
72	The 6th alarm setup	-----	
73	Station hunting sequential number	00	00: disable Station hunting sequential number: Refer to function no. 43
74	Individual assign pick up	1	0: Not allowed 1: Allowed Related function no. 6
75	All area pick up	1	0: Not allowed 1: Allowed Related function no. 8
76	Busy station call forwarding setup	1	0: Not allowed 1: Allowed Related program: kind 2 item 27-28, function no. 2
77	Call forwarding after ringing time is over	1	0: Not allowed 1: Allowed Related program: kind 2 item 7-8, function no. 2
78	To charge for calling to this station	0	0: No accounting 1: Accounting (send simple metering) Related program: kind 1 item 52-53, kind 2 item 73
79	Data connecting line mode	0	0: No 1: Special for transmitting data (Adjust volume invalid)
80	Outward call restriction	0	0: No 1: Yes
81	DTMF dialing out	0	0: None 1: DTMF Sending (subject to the interface such as SLT interface to be connected with voice mail card.)
82	Send digital data from the station	0	0: None 1: Sending digital signal by using the digital station card on system KSU

## Kind 2 (83-98)

Item	Description	Default	Instruction
83	DSS user can auto release & answer the other stations	0	0: Not allowed 1: Auto release
84	Accept "Hold" from the other party on intercom call	0	0: Not Accept 1: Accept Related function no. 88, 165
85	The respondent mode for the holding time is over	0	(Holding time, refer to kind 1 item 21) 0: Hang up 1: Recall holding station 2: Recall station A (kind 1 item 15) 3: No recall designated Related program: kind 1 item 15, 21, kind 2 item 84
86			
87			
88	The respondent mode after camp-on recall time-out	0	0: Hang up 1: Keep on ringing
89			
90	Day time sub-ringing station	----	Enter station no. Enter " * " + "station no." to delete
91	Night time sub-ringing station	----	If the user need the other station ringing at the same time when his telephone set is ringing, he can set this programming item.
92	All stations of the same group ringing at the same time on day time	0000	9999groups (match to function no. 168) Programming time:
93	All stations of the same group ringing at the same time on night time	0000	When the station use function no. 168-170 on day time. Related program: kind 2 item 33-36, 94
94	Call the station controlled by the group	0	0: No control 1: Controlled by group (match to kind 2 item 96) Related program: kind 2 item 25-26, 92-93
95	Answer holding station controlled by the group	0	0: No control 1: Controlled by group (match to kind 2 item 96) Related program: kind 2 item 25-26
96	The group control mode for calling to the station	0	0: Station group (refer to kind 2 item 25-26) 1: General group (refer to kind 2 item 33-36 & 44-45) The item will work when item 94 & 95 programs to be " 1 ".
97	The paragraph of holding music source	255	255 means system music on hold IC Match to UDF2-DISA and voice mail paragraph. It can be working a alarm announcement (match to voice paragraph if set at "98".)
98	The volume of pressing key tone	03	0: mute, 0-7 scales



## Kind 2 (99-114)

Item	Description	Default	Instruction
99	Return the station programmed data to "Default"	----	Press " # " key and press "HOLD" key, then escape the program on stations and return to the "Default". Programming time: When the programmed data for the station is terrible wrong or change the connected interface.
100	Copy all flexible function keys	----	Press " # " key and press "TRAN" key to copy to one flexible function key or press "PAGE" to copy to flexible function key of all the other "physical location".
101	Copy all programmed data to other station		Press " # " key and then press "TRAN" key to do one copy or press "PAGE" to copy to all other stations.
102	Volume of background music	40	0-63 scales (standard value: 40, unit: 1dB)
103	Handset receiving volume on CO call	40	0-63 scales (standard value: 40, unit: 1dB) Related program: kind 2 item 58, kind 3 item 26
104	Handsfree receiving volume on CO call	40	0-63 scales (standard value: 40, unit: 1dB) Related program: kind 2 item 58, kind 3 item 26
105	Handset receiving volume on intercom call	40	0-63 scales (standard value: 40, unit: 1dB) Related program: kind 2 item 58
106	Handsfree receiving volume on intercom call	40	0-63 scales (standard value: 40, unit: 1dB) Related program: kind 2 item 58
107	Alarm ringing volume	40	0-63 scales (standard value: 40, unit: 1dB)
108	The ringing back tone for starting all stations of the same group ringing at the same time	1	0: No ring back tone 1: Ring back tone (ISDN trunk → Hook off → Ringing back tone) Match to function no.168
109	Select called party's ringing tone source	3	0: According to program kind 8 item 31 1: According to program kind 8 item 33 2: According to program kind 8 item 32 3: According to program kind 2 item 111-114 Remark: This programming item is for the purpose to distinguish the Caller's ID by the ringing tone.
110	When on-hook dialing, call to other stations, waiting time for answer	0	0-9999 x 0.1 second (0: No limit) Remark: According to the clients' demands (e.g. when the keyphone is used as doorphone)
111	Play time of called station's ring tone	0	0-9999 x (kind 1 item 28) 0: Not limited Match to program kind 2 item 3, 109, 112-114
112	Call to other stations, ringing source 1	245	The setting value refer to Appendix II & match to kind 2 item 114. Related program: kind 2 item 3, 109, 111-114
113	Call to other stations, ringing source 0	223	
114	Call to other stations, ringing source type	0...23..6789	TP:0:0123456789 - > 1:012345 Total 16 bit break ratio. Match to program kind 2 item 3, 109, 111-113

## Kind 2 (115-124)

Item	Description	Default	Instruction
115	Password lock	0	0: Unlocked 1: Locked Refer to program kind 2 item 23 & 38, function no. 15
116	Pick up the holding CO call	1	0: Not allowed 1: Allowed Related program: kind 2 item 44-45, kind 3 item 2-3, 38, function no. 88,165 P.S. It should be set at " 0 " if the station is used in the hotel room.
117	Handset MIC transmission volume on intercom call	40	0-63 scales (standard value: 40, unit: 1dB)
118	Allow to look at the system stored Caller ID number	1	0: Not allowed 1: Allowed For display keyphone only.
119	Allow the station to delete repeated Caller ID number automatically	1	0: Not allowed 1: Allowed For display keyphone only.
120	Allow to turn off the party's SPKR automatically when handsfree speaking is over	0	0: Disable 1: Enable
121	Enable to hear DTMF tone on dialing	0	0: Disable 1: Enable For digital keyphone only.
122	Warning tone	0	0: Disable 1: Enable 3: Enable & with warning LED Related program: kind 1 item 17, kind 2 item 51-52, 123, kind 3 item 52-55
123	Send warning tone when calling the busy station	0	0: Disable                      1: Enable Related program: kind 2 item 122
124	Ringing tone source of transfer	4	0: Refer to program kind 8 item 31 1: Refer to program kind 8 item 33 2: Refer to program kind 8 item 32 3: Refer to program kind 2 item 111-114 4: CO call transfer: refer to program kind 8 item 26, 34, doorphone transfer: refer to program kind 8 item 26 5: Refer to kind 2 item 109 Programming time: When the user needs to distinguish the CO or intercom incoming call. Ex. If system connected with UDF2-DISA unit or voice mail card , it can be programmed the different transfer ringing tone.

## Kind 2 (125-133)

Item	Description	Default	Instruction
125	Show Caller ID & trunk line no. during transfer	0	0: Disable 1: Enable
126	LCR/ARS group	99	00: Invalid 01-29 groups Programming time: With different CO groups connecting to different telecommunication service company or cellular phone service, it can be programmed by using LCR to go through the route of cheapest cost. Related program: kind 2 item 133, kind 3 item 22-25, 94, 97
127	Disconnecting station port to be indicated on DSS key	0	0: Disable 1: Enable (The user will see the disconnecting station line on the DSS key) For digital key phone ports only.
128	Incoming call mode	0	0: Ringing 1: Voice Call directly Remarks: 1. For digital keyphone only. For full handsfree speaking, refer to program kind 2 item 20 (setting at " 1 ") item 120 (setting at " 1 ")
129	On-line recording allowed	0	0: Not allowed 1: Allowed Remark: The system needs to install voice mail card. Related program: kind 2 item 130, kind 3 item 88
130	Allowed on-line recording by opposite party	0	0: Not allowed 1: Allowed Remark: The system needs to install voice mail card.
131	Hear DTMF tone when redialing	1	0: Disable 1: Enable P.S. If install single line phone, it should be set at "0" to prevent abnormal working for redialing
132	Invalid dialing duration after the intercom call is hung up	0001	0-9999 ms Remark: The last display data will be keeping until the setting time is over.
133	LCR Pointer	0000	000: Do not execute LCR function 001-009: Select ARS group directly 100-299: Refer to program kind 21 300-499: Refer to program kind 22 500-699: Refer to program kind 23 700-899: Refer to program kind 24 Programming time: When the station user makes the CO call and needs to use the LCR function. Related program: kind 20-24

## Kind 2 (134-149)

Item	Description	Default	Instruction
134	Allowed call forwarding condition	0:23456 9	2: Intercom 3: CO call 4: Doorphone call 5: Incoming call from PBX 1 6: Incoming call from PBX 2 9: DISA & Voice mail
135	LCR display mode	0	0: Original number 1: New number after changed Related program: kind 2 item 133
136	From transfer to conference call	0	0: Disable 1: Enable and becoming conference call directly Remark: When speaking, to press "TRAN" key and dial the station no. or CO outgoing telephone no. to press "TRAN" again when connecting and it will become conference call directly.
137	The starting digit of Caller ID of SLT	10	Setting value 16 is not sending the digit.
138	The ending digit of Caller ID of SLT	15	0123456789 *:11 #:12 A:13 B:14 C:15 D:10
139	Allow to send Caller ID number to this SLT station	0	0: Not allowed 1: Allowed
140	Allow to send Caller ID number to this SLT station after speaking	0	0: Not allowed 1: Allowed Applicable to the external voice mail box to verify the CO incoming call. (Also set kind 2, item 81 & 137 to be "1")
141			
142	Sub-ringing station status		0: Can be dialed in normally (When using the sub-ringing station, it can be dialed to the original station.) 1: Can not be dialed in (When using the sub-ringing station, it can not be dialed to the original station.)
143	Allow to retrieve the holding internal call by pressing "HOLD" key	0	0: Not allowed 1: Allowed
144	Auto-turn off the earphone	0	0: No 1: Yes Applicable to keyphone with earphone interface
145	Ringing setup on earphone	0	0: Only ringing on keyphone 1: Ringing on both of keyphone & earphone 2: Only ringing on earphone Applicable to keyphone with earphone interface
146	Station metering setup	0	0: No metering 1: Metering
147	Integration method for external voice mail box (Inband)	0	0: Unused 1: Use (Also set kind 2, item 81 to be "1")
148	Message for missed call on LCD display	0	0: No 1: Yes (only for display keyphone)
149	A/u law type	0	0/1: Auto-detect by hardware 2: $\mu$ -Law 3: A-Law

**Kind 2 (150-158)**

Item	Description	Default	Instruction
150	PTM/PTP mode	000	000: PTP (1 line to 1 loop) 064: PTM (1 line to multiple loops)
151	Whether allows to active the called station's handsfree intercom function	2	0: Not allowed PGM2.57(*) 8.37 2: Allows the function and without alert vocal 3: Allows the function but with alert vocal
152	Whether limited to call the operator or Group service only	0	0: No limited 1: Only allows to call the operator 2: Only allows to call the group service 3: Allows to call both operator and group service
153	Whether allow to setting up the CO forwarding	0	0: Allowed 1: Not allowed
154	Allows to view the personal CID number	1	0: Allowed (SPD+HOLD) 1: Not allowed
155	Whether allows forwarding to VM when active DND function	1	0: Incoming call forward to VM directly when active DND function 1: Not allowed
156	Push-to-talk button	1	0: Start to communicate after pressing <input type="checkbox"/> or F80 1: No use
157	Whether send the extension describer No. (ISDN CLIP No.)	0	0: No 1: Yes
158	Whether to send the station billing	0	0: No 1: Yes

## 2.6 CO/ISDN/VoIP LINE PROGRAM: Kind 3

Operation : press [SPKR] → [HOLD] (press twice within one second) → enter [2][6][5][6] or other setting password → enter programming kind [3] → [HOLD] → enter CO line no. → [HOLD] → programming item no.

Item	Description	Default	Instruction
00	CO line used status	0	0: Normal 1: Un-used or out of order Programming time: When CO line is out of order or the actual CO line isn't installed so as to prevent catching an invalid CO line.
01	Dialing type	1	0: None (When kind 3 item 9 is programmed to be 2, this item should be " 0 ") 1: DTMF (Related program: kind 1 item 8) 2: Pulse (Related program: kind 3 item 35-36)
02	Day outgoing trunk group	0000	0-9999 groups Relate program: kind 2 item 44-45, kind 3 item 38
03	Night outgoing trunk group	0000	
04	Ringing station group for the CO day incoming call	0000	0-9999 groups Programming time: When it requires grouping for answering/ringing stations. Related program: kind 2 item 33-36
05	Ringing station group for the CO night incoming call	0000	
06			
07			
08	To fix the type of installed interface	0	0: Changeable 1: Prohibit changing Programming time: To avoid re-programming caused by misplacing the interface when changing the interface.
09	Connecting type for the CO line on trunk card	3	2: External amplifier (When kind 3 item 1 is programmed to be " 0 ", this item should be " 2 ") 3: CO line (Related program: kind 1 item 30) 4: Door phone 6: PABX (1) (Related program: kind 1 item 65) 7: PABX (2) (Related program: kind 1 item 66)

### Kind 3 (10-17)

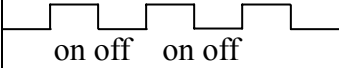
Item	Description	Default	Instruction
10	Day incoming directive	F168	Application selection for primary key [0]: Unused [1]: Functions [2]: Station [6]: Physical location, please see the operation code of Appendix I.
11	Night incoming directive	F168	Programming time: As per customer's request to set a specific ringing station, the code can be set as the extension number.
12	Dialing control of outgoing call	1	0: No 1: Yes If CO line interface to be connected with another PBX, it can be set at " 0 " (Do not accept class control) according to customer's requirement. Related program: kind 1 item 33-38, kind 2 item 38-41, kind 7.
13	While hunting new CO line, hang up the last hunted CO line or not	1	0: Under "transfer" status 1: Auto hang up (During talking, if press new CO line key, the original line will hang up)
14	Digital keyphone transmission controlled by the number of dialing digits	0	0: Uncontrolled Setting value: 1-19 digits If the dialing digits is less than the setting numbers, the digital key telephone transmitter can not work.
15	Hold the CO line is accepted or not	1	0: Not accepted when connects with external amplifier or doorphone. 1: Accepted
16	The respondent mode for the holding time-out	1	(Holding time, refer to program kind 1, item 21. ) 0: Hang up 1: Recall holding station 2: Recall designated station A (Refer to program kind 1, item 15) 3: No recall
17	The respondent mode for camp-on time-out	1	Refer to program kind 1 item 13 for setting camp-on time. 0: Hang up 1: Recall transferring station 2: Recall designated station A (Refer to program kind 1 item 15) 3: No recall

### Kind 3 (18-24)

Item	Description	Default	Instruction
18	The respondent mode for transferred station no answer time-out	1	Refer to program kind 1 item 19 for transfer ringing back time. 0: Hang up 1: Recall transferring station 2: Recall designated Station B (Refer to program kind 1 item 16) 3: No recall
19	The respondent mode for transfer recall and no-answer	0	0: Hang up (Set ringing time as per program kind 1 item 19) 1: Keep on ringing (Till it is answered)
20	Bill detecting type	0	0: Time (Billing after connecting) 1: Polar reverse (Billing after the talk starts) 2: Polar reverse again after the talk is over. (Billing after the talk starts and then hang up automatically after the talk is over.) 3: ISDN 4: Dual tone multifrequency B 5: Dual tone multifrequency C 6: Dual tone multifrequency D 7: Dual tone multifrequency A
21	Prohibited using time for re-hunting after the CO line disconnected	0001	0-9999 ms If user program the "call duration limited" function, to program this item to make sure the CO line is cut and prevent retrieving the CO line after limited time is over.
22	Day busy call forward	----	Setting value: According to flexible number plan of program kind 6. For station user to hunt the next designated idle CO line when the station user press a busy CO key, similar to the function of busy station call forward.
23	Night busy call forward	----	Ex. When CO line 1 is busy, the system can automatically hunt the next available CO line as programmed.
24	Trunk hunting sequential number	01	0: Not listed (Not in trunk hunting mode) 99: Serial no. Programming time: When connecting sequence of CO hardware hasn't been changed, but need to change CO hunting sequence. Relate program: kind 1 item 30,65-66, kind 3 item 9



### Kind 3 (25-31)

Item	Description	Default	Instruction
25	Bill metering	1	0: No 1: Yes (send simple metering account) P.S. Only workable when connecting with RS-232 interface.
26	CO line type	1	0: Used as station line (Related program: kind 2 item 105-106) 1: Trunk line (Related program: kind 2 item 103-104, kind 3 item 32, 73 and function no.18, 23) To program memorized volume for talking, trunk to trunk and ring back tone as per connecting condition.
27	Ringing off time of CO incoming call 	24	0-99 x 0.1 seconds (0: means to retain the CO accessing status till it is answered.) To program according to the specification of CO accessing. The default parameter 24 is 1 sec. on and 2 sec. Off; If it's 1 sec. on 4 sec. Off, the parameter is 44.
28	The port call to the other stations ringing time	0	0-9999 ms x (kind 1 item 28) 0: No limits Programming time: If use doorphone with repeater, the related program for setting ringing time.
29	The tone source of incoming call ring type 1	245	Programming for tone source, refer to appendix II Programming time: To discriminate the different ringing tone of incoming call or use's requirements. Ex: To turn incoming tone of CO line 1 to be Hold music source, kind 3 item 29-30 are programmed to be "063". Related program: kind 1 item 28, Kind 3 item 28,31
30	The tone source of incoming call ring type 2	223	
31	Ring type of incoming call	0:01234 ...	ITP:0:0123456789 -> 1:012345 Total 16 bit tone pattern. When setting value 0:01234 changed to be 0:23 and the make break of incoming ring tone will be different. 0: 0 1 2 3 4 changed to 0: 2 3 ↓ ↓ ↓ ↓ ↓                      ↓ ↓ 1 1 1 1 1 0 0                      0 0 1 1 0: Use the kind 3 item 30 programmed tone source 1: Use the kind 3 item 29 programmed tone source Related program: kind 1 item 28, kind 3 item 28-30

### Kind 3 (32-38)

Item	Description	Default	Instruction
32	Transmission volume of CO to CO call forwarding	40	00-63 scales (standard value: 40, unit: 1 dB) Programming time: When start trunk to trunk function and transmission volume is too big or not enough.
33	Transmission volume on speaking	40	00-63 scales (standard value: 40, unit: 1dB) Programming time: When the trunk's transmission volume is too big or not enough.
34	LED light for CO using condition	1	0: Red light only 1: Green light or red light for dual color LED display keyphone.
35	"Make" time of pulse dialing	09	09 - > 10 PPS 33% (match to program kind 3 item 36) 11 - > 10 PPS 40% 04 - > 20 PPS 33% 05 - > 20 PPS 40% P.S. This item is used for analog CO line and also is effectual for kind 3 item 1 when it's set to be " 2 ". Programming Time: According to the connection specification of PTT's analog CO line.
36	"Break" time of pulse dialing	21	21 - > 10 PPS 33% (match to program kind 3 item 35) 19 - > 10 PPS 40% 11 - > 20 PPS 33% 10 - > 20 PPS 40%
37	Accept pressing [REDIAL] key to make Redial	1	0: Not accept 1: Accept re-dial Programming time: When the CO line doesn't fit re-dial function or same character function. Related function no. 4, 19, 22, 34, 46
38	Group control	1	0: Uncontrolled 1: Controlled by group Programming time: When the CO line doesn't need group control. Ex. Program kind 3 item 9 is set to be " 4 " (doorphone), this item should be set at " 0 ". Related program: kind 2 item 44-45, kind 3 item 75

### Kind 3 (39-52)

Item	Description	Default	Instruction
39	Hot line telephone no. on day time	-----	To set the called telephone number of the hot line.
40	Hot line telephone no. on night time	-----	Press" * " + the programmed hot line telephone number to cancel the programmed telephone number. Related program: kind 3 item 41, function no. 34
41	Hot line auto dialing	0	0: Unexecuted 1: Executed (According to program: kind 3 item 39-40)
42			
43			
44	Volume of dialing DTMF	40	00-63 scales (standard value: 40, unit: 1dB) Programming time: When DTMF signal of CO line is too loud or too small.
45	Receiving volume of CO incoming call	40	00-63 scales (standard value: 40,unit: 1dB) Programming time: When volume of incoming call is too loud or too small.
46	Whether to print the status of incoming call	1	1: Yes 0: No
47	Auto route selection (ARS) group	00	00: Invalid 01-09 groups Programming time: With different CO groups connecting to different telecommunication service company or cellular phone service, it can be programmed by using LCR to go through the route of cheapest cost. Related program: kind 2 item 133, kind 3 item 22-25, 94, 97
48	Shortest time of incoming call signal	10	1-9999 x 0.01 ms Programming time: To program according to specification of connecting equipment or without ringing for incoming calls. Remark: If incoming call signal is square wave, it should be programmed to be " 1 ".
49	Shortest time from CID signal to incoming call ringing signal	0	0-9999 x 3.333 ms Remark: Time length after receiving DTMF
50	Longest time from CID signal to incoming call ringing signal	1000	Caller ID to detect the ringing. (only suitable for DTMF Caller ID)
51	Width of Caller ID signal	1066	
52	The warning tone when CO incoming call accessing on busy station	1	0: No 1: Yes Match to program kind 2 item 122, if the ringing phone is busy and there is another incoming call, then it will deliver the warning tone.

### Kind 3 (53-64)

Item	Description	Default	Instruction
53	Call time limitation for CO to CO call forwarding	0000	0-9999 seconds 0: CO to CO not allowed Related function no.18, 23, 96
54	Outgoing call duration limit	0	0-9999 seconds 0: Not limited
55	Incoming call duration limit	0	Programming time: When controlling the calling time of CO line to the station.
56	A/u Law type	0	2: u Law 3 : A Law To program according to ISDN specification. Remark: Setting value 2, 3 are compulsory programs. No matter what type the actual hardware construction is. When the setting value is “0” or “1”, it means that the A/u Law should be decided by using what kind of hardware.
57	ISDN MSN (1) / DDI (1) telephone no.		To program the ISDN telephone no. (max. 16 digits) Only for programming the ISDN interface. Programming time 1:
58	ISDN MSN (2) / DDI (2) telephone no.		As users have applied for function of users' multi subscriber number and such function can be programmed when ISDN CO line can provide it.
59	ISDN MSN (3) / DDI (3) telephone no.		Or to operate as per regular incoming CO type if it is not programmed. If only apply for four numbers, then can only program 4 sets of the numbers. When apply for 5 sets of the numbers and only 4 sets are programmed, it won't be workable for the incoming calls come through the unprogrammed number.
60	ISDN MSN (4) / DDI (4) telephone no.		Programming time 2:
61	ISDN MSN (5) / DDI (5) telephone no.		When users apply for DDI (incoming direction: F172) function of ISDN, ex. if DDI number is 3721153-99, then only to program 37211 should be O.K. the subsequent numbers 53-99 can be programmed by complying with programming kind 26.
62	ISDN MSN (6) / DDI (6) telephone no.		For the programming please refer to the additional service of F9851 ISDN BRI card. Dial the DDI number to ring the station lines.
63	ISDN MSN (7) / DDI (7) telephone no.		Remark: Every ISDN line can use 8 sets of MSN/DDI numbers.
64	ISDN MSN (8) / DDI (8) telephone no.		Related program: kind 3 item 65-72, 76-83, kind 26

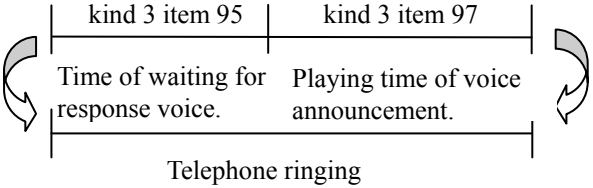
### Kind 3 (65-75)

Item	Description	Default	Instruction
65	ISDN MSN (1) / DDI (1) incoming directive		"F168" is incoming direction. Entering method:
66	ISDN MSN (2) / DDI (2) incoming directive		First key [0]: unused, [1]: function, [2]: station [6]: physical location Please see the operation code of Appendix I.
67	ISDN MSN (3) / DDI (3) incoming directive		Programming time: If customer requests to change MSN(1) / DDI (1) numbers to be special line ringing, the setting value can be set to be the extension no.
69	ISDN MSN (5) / DDI (5) incoming directive		<div> <div>TRK : 01    ITEM : 65</div> <div>MSN1    Incom : _</div> </div> <div>← following the cursor to press " 2 "</div>
70	ISDN MSN (6) / DDI (6) incoming directive		<div> <div>TRK : 01    ITEM : 65</div> <div>MSN1    Incom : L_</div> </div> <div>← enter station no. → [HOLD] key</div>
71	ISDN MSN (7) / DDI (7) incoming directive		
72	ISDN MSN (8) / DDI (8) incoming directive		Related program: kind 3 item 57-72 Remark: Match to the ISDN interface.
73	Telephone no. programming for call forwarding-CO to CO	----	Programming time: When users need to have CO to CO function. Programming method same as kind 3 item 39, the setting value same as function no. 18. Related program: kind 3, item 53, function no. 23
74	Bill account for CO incoming call	0	0: No 1: Yes (with RS-232 interface) Programming time: When users need to record all the CO incoming calls. Remark: After the incoming call is answered and then hung up, the simple metering data will be sent.
75	Group control for answering the holding call	0	0: No 1: Yes (according to per user's demands) Programming time: When users want to control the answering status for holding CO calls. Match to program kind 2 item 44-45, kind 3 item 2-3.

### Kind 3 (76-89)

Item	Description	Default	Instruction
76	ISDN MSN 1 group setting	5535	If it is not set or is set to be "9999", then to set it according to program kind 3 item 4-5. Remark: When applying ISDN interface for programming and comply with functions 1, 13, 168 to use it. When users use ISDN multi numbers and group discrimination. Related program: kind 3 item 57-64
77	ISDN MSN 2 group setting	5535	
78	ISDN MSN 3 group setting	5535	
79	ISDN MSN 4 group setting	5535	
80	ISDN MSN 5 group setting	5535	
81	ISDN MSN 6 group setting	5535	
82	ISDN MSN 7 group setting	5535	
83	ISDN MSN 8 group setting	5535	
84	The starting digit of Caller-ID	10	Setting value: 0-16 11: [*], 12: [#], 13: [A], 14: [B], 15: [C], 10: [D] Programming time:
85	The ending digit of Caller-ID	15	For when default is different with CO incoming type (such as *, #, A, B, C, D), Setting value 16 is not detectable.
86	Time of receiving Caller-ID data after ringing	0000	0~9999 ms Programming time: When incoming type is to ring first and send Caller ID no. in case of picking the phone too early to receive the incoming call data. (ex. for when match to DISA)
87	PTP/PTM mode	0	Connecting way of ISDN card (only use ISDN card of single port to program it, ex. 1st, 3rd port) 000: PTP – point to point (1 line to 1 port) 064: PTM – point to multi-ports (1 line to multi ports) Remark: This is only applicable to the CO lines that can offer such function.
88	OverLap/EN-Block mode	0	Dialing mode of ISDN CO line. 0: OverLap 1: EN-Block
89	Display calling no. of ISDN trunk on the called party's telephone LCD screen	0	0: CLIR (no displayed) 1: CLIP (displayed) (only use ISDN card of single port to program it, ex. 1st, 3rd port) Remark: The port call out thru ISDN CO line can display the calling phone no. on the called party's phone. This is only applicable to the ISDN CO line that can offer such function.

### Kind 3 (90-95)

Item	Description	Default	Instruction
90	Display calling no. of ISDN trunk on my telephone's LCD screen	0	0: COLR (no display) 1: COLP (displayed) (only use ISDN card of single port to program it, ex. 1st, 3rd port) Remark: The port call in thru ISDN CO line can display the calling phone number on the called party's phone. This is only applicable to the ISDN CO line that can offer such function.
91	ISDN CO line numbers	-----	Save ISDN number (only use ISDN card of single port to program it, ex. 1st, 3rd port) To save the ISDN number and when kind 3 item 89 or 90 is programmed to be 1 then the ISDN number can be displayed. This is only applicable to the ISDN CO line that can offer such function.
92	Minimum time to start charging	0	0-99 seconds Start sending the simple account when exceed the time period after dialing the CO outgoing telephone no.
93	Allowing the other party's recording	1	0: Not allowed 1: Allowed Remark: This program is only workable for using voice mail card on the system. Programming time: Need to record the telephone conversation on the line. Related program: kind 2 item 129
94	Pointer for starting to execute LCR	0000	Used for Call Forwarding-CO to CO Refer to the example instruction of LCR. Related program: kind 3 item 73, function no. 18, 23
95	Time of waiting for vocal answering	000	0-255 seconds Applicable to the F0216 vocal card .  Programming time: Waiting time of answering incoming CO call for vocal card. Related program: kind 2 item 35, kind 3 item 97

### Kind 3 (96-106)

Item	Description	Default	Instruction
96	Time of DDI waiting for vocal answering	000	0-255 seconds Applicable to the F0216 vocal card. Programming time: DDI CO line to station line. Ring time before the response voice . Related program: kind 3, item 95,97
97	Playing time of vocal card	0000	0-9999 seconds      0: Not limited Applicable to the F0216 vocal card. <div style="text-align: center;"> <p>kind 3 item 96      kind 3 item 97</p> <p>Waiting time of playing      Playing time of voice vocal message.      announcement..</p> <p>kind 26      kind 3 item 65</p> <p>DDI ring phone      Programming for incoming call</p> </div> <p>Remarks</p> <p>1: If the ringing time of analog CO lines exceeds the programmed period with no answer, the lines will be released, no matter the opposite side has hung up.</p> <p>2: If the ringing time of ISDN CO lines exceeds the programmed period with no answer, the lines will be released.</p> <p>Related program: kind 3 item 95-96 can not be set to be " 0 " .</p>
98	Whether to check the ARS group or not when assign a CO line to dial outgoing telephone no. & execute LCR	0	0: No (call out directly without inspection) 1: Yes Remark: Firstly to pick the CO line and dial the number (execute LCR), the system will allow calling out according to setting data, or not allow and then switch off the CO line. Related program: kind 3 item 47, 94 kind 2 item 133
99	Set to default	-	Press <b>#</b> and then press “HOLD” key to set to default
100			
101			
102	Day auto-answering time of F0216 vocal card	0	000~255 seconds Applicable to the F0216 vocal card.
103	Night auto-answering time of F0216 vocal card	0	000~255 seconds Applicable to the F0216 vocal card.
104	Print the dialing condition	0	0: No printing    1: Printing
105	Hear the notification announcement from mobile phone when CO call forwarding	0	0: No 1: Yes
106	Active CALL PARK after pressing “HOLD”	0	0: Not allowed 1: Allowed



### Kind 3 (107-123)

Item	Description	Default	Instruction
107			
108			
109			
110			
111			
112			
113			
114			
115			
116	ISDN number plan mode	0	0: Unknown 1: International number 2: National number 3: Network specific number 4: Subscriber number 5: Abbreviated number 6: Reserved for extension
117	ISDN number plan identification	1	0: Unknown 1: ISDN/Telephone numbering plan 2: Data numbering plan 3: Telex numbering plan 4: National standard numbering plan 5: Private numbering plan 6: Reserved for extension
118	Display the trunk name	0	0: Default (TRK1 for CO1...) 1: Display (Max. 8 letters, defined by user)
119	Day-time Incoming condition	0	0: No check 1: Allow Table A numbers incoming 2: Reject Table B numbers 3: Reject Table B numbers and the number digit less than Kind 1 Item 53 setting 4: Active Kind 26 setting
120	Night-time Incoming condition	0	0: No check 1: Allow Table A numbers incoming 2: Reject Table B numbers 3: Reject Table B numbers and the number digit less than Kind 1 Item 53 setting 4: Active Kind 26 setting
121	Day Class of VoIP trunk mode	2	0: Hot line
122	Night Class of VoIP trunk mode	2	1: Intercom only 2-7 class → Match to kind 1 item 33-38, function no. 15
123	Whether allow to active VoIP page/broadcast	0	0: Not allow 1: Allow

## 2.7 Doorphone : Kind 4

Operation : press [SPKR] → [HOLD] (press twice within one second) → enter [2][6][5][6] or other setting password → enter programming kind [4] → [HOLD] → display doorphone no. → [HOLD] → enter programming item no.

Item	Description	Default	Instruction
00	Doorphone used status	0	0: Normal 1: Unused
01	Dialing type	0	0: Can not dial the number 1: DTMF 2: pulse (Match to pgm1.8)
02	Day group	0	0-9999 groups Programming time: When users need group control for applying doorphone to station line. Related program: kind 2 item 33-34, 44-45, kind 3 item 2-3
03	Night group	0	
04	Day incoming call group	0	
05	Night incoming call group	0	0-9999 groups Programming time: Group control for answering incoming call from doorphone unit or by ringing station line. Related program: kind 2 item 33-34, kind 3 item 4-5, kind 4 item 10-23, function no. 168-171.
06			
07			
08	Talking time of incoming doorphone call	300	0-9999 seconds 0: Not limited Related program: After the talk is over, make sure the phone is properly hung to avoid unconnecting program of next call.
09	Talking time of doorphone to outside CO line	300	0-9999 seconds 0: Invalid Programming time: Talking time of using doorphone as hot line function. Related program: kind 4 item 10,39 (for kind 3 item 53, it can not be set to be " 0 ", for programming the limited time of outgoing call is on basis of this item.)

#### Kind 4 (10-24)

Item	Description	Default	Instruction
10	1st doorphone key ringing directive	F170	The program function F170 is incoming call instruction. [0]: unused [1]: function [2]: station [3]: CO line [4]: doorphone [5]: physical location [6]: PBX1 [7]: PBX2 [*]: next key [#]: last key Please see the operation code of Appendix I. Programming time: When users want to change the programmed status or program it to receive the incoming calls thru specific station line.
11	1st doorphone key ringing station group	0001	Press the 1st key of ringing group. (Match to program kind 4 item 10) Programming time: When the system connect with multi-doorphone unit and need to make group control for doorphone calling to the relative station.
12	2nd doorphone key ringing directive	F170	The program function F170 is incoming call instruction.(same as the above item 10)
13	2nd doorphone key ringing station group	0002	Press the 2nd key of ringing group.(same as the above item 11)
14	3rd doorphone key ringing directive	F170	The program function F170 is incoming call instruction.(same as the above item 10)
15	3rd doorphone key ringing station group	0003	Press the 3rd key of ringing group.(same as the above item 11)
16	4th doorphone key ringing directive	F170	The program function F170 is incoming call instruction.(same as the above item 10)
17	4th doorphone key ringing station group	0004	Press the 4th key of ringing group.(same as the above item 11)
18	5th doorphone key ringing directive	F170	The program function F170 is incoming call instruction.(same as the above item 10)
19	5th doorphone key ringing station group	0005	Press the 5th key of ringing group.(same as the above item 11)
20	6th doorphone key ringing directive	F170	The program function F170 is incoming call instruction.(same as the above item 10)
21	6th doorphone key ringing station group	0006	Press the 6th key of ringing group.(same as the above item 11)
22	7th doorphone key ringing directive	F170	The program function F170 is incoming call instruction.(same as the above item 10)
23	7th doorphone key ringing station group	0007	Press the 7th key of ringing group.(same as the above item 11)
24	The doorphone hunting sequence	01	0: Not listed 1-99 : series no. Programming time: When many doorphones need to be arranged in sequence.

#### Kind 4 (25-40)

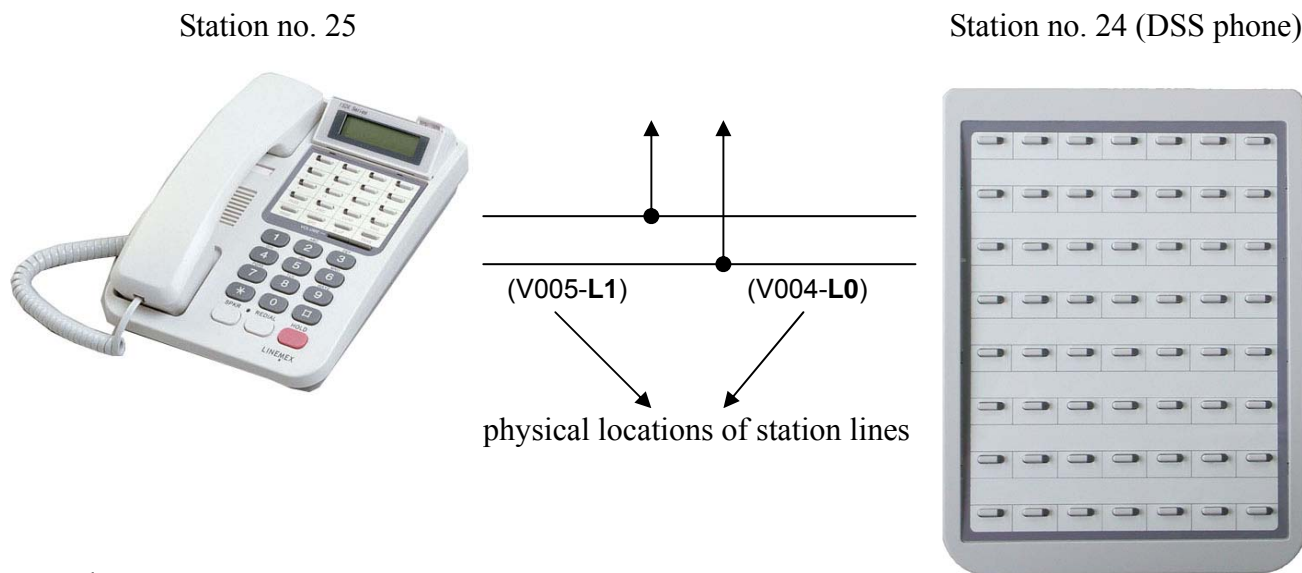
Item	Description	Default	Instruction
25	Interface lock-up	0	0: allowed to change the interface 1: not allowed to change the interface (avoid to install the wrong card when changing the interface card)
26	Doorphone transmission volume during talking	40	0-63 scales (standard value: 40, unit: 1dB)
27	The accessing time of doorphone incoming call	150	0-9999 x 0.1 second      0: Not limited Programming time: When users want to control the ringing time of doorphone incoming calls.
28	Doorphone ringing source play time	0	0-9999 x 0.1 second Related program: kind 1 item 28, kind 4 item 29-31
29	Ringing source type 1 of incoming doorphone call	248	Refer to the Appendix II. Programming time: To change the ringing tone of doorphone incoming call or when users have the demand.
30	Ringing source type 0 of incoming doorphone call	248	Ex. To change the ringing tone to be music on hold source, kind 4 item 29-30 should be set to be "063". Related program: kind 3 item 31, kind 4 item 28
31	Ringing type of incoming doorphone call	0: 1234 567..	TP: 0: 0123456789 → 1: 012345 Total 16 bit tone pattern. Remark: This item is used for SLT ringing type. (refer to program kind 3 item 31)
32	Volume for CO call forwarding	32	0-63 dB
33	Receiving volume of doorphone unit	32	0-63 scales (standard: 40, unit 1dB)
34	LED display for doorphone	1	0: only red light 1: red light or green light (when digital key phone set requires two colors of displaying lights.)
35	Whether send the warning tone when station busy	1	0: Not allowed 1: Allowed
36	Call account for Line XX	0	0: No used 1: SMDR
37	LCR/ARS Group	00	00: Invalid 01-09
38	Dialing control of outgoing call	0	0: No 1: Yes
39	Telephone no. of hot line on day time	-----	Telephone on (press " * " to clear) Remark: The ringing instruction of first doorphone key should be set to be F34.
40	Telephone no. of hot line on night time	-----	Programming time: When use doorphone to make direct outgoing call. (as emergency call) Related program: kind 4 item 9

#### Kind 4 (41-51)

Item	Description	Default	Instruction
41	Allow on-line recording by opposite party	1	0: Not allowed 1: Allowed (only workable for the system that is installed with voice mail card.) Related program: kind 2 item 129
42	Allow the page output	0	0: Not allowed 1: Allowed
43	Page group	0	0~9999 groups
44	Page volume	40	00~63 scales
45	DSS-1 physical location	----	
46	DSS-2 physical location	----	
47	DSS-3 physical location	----	
48	Allow to transfer by calling party	0	0: Not allowed 1: Allowed
49	Whether print the door phone status	0	0: Not allowed 1: Allowed
50	Whether allows "HOLD"	0	0: Not allowed 1: Allows Hold by the calling party
51	Release the doorphone automatically	0	0: Not allowed 1: Allowed

## 2.8 DSS Programming: Kind 5

### 2.8.1 Connection illustration:



Remarks:

**1. DSS physical location must be at L0 position.**

**3. DSS physical location (according to the default).**

**Ex. The station no. is 20-67.**

The 4th DSS key → Station no. 23

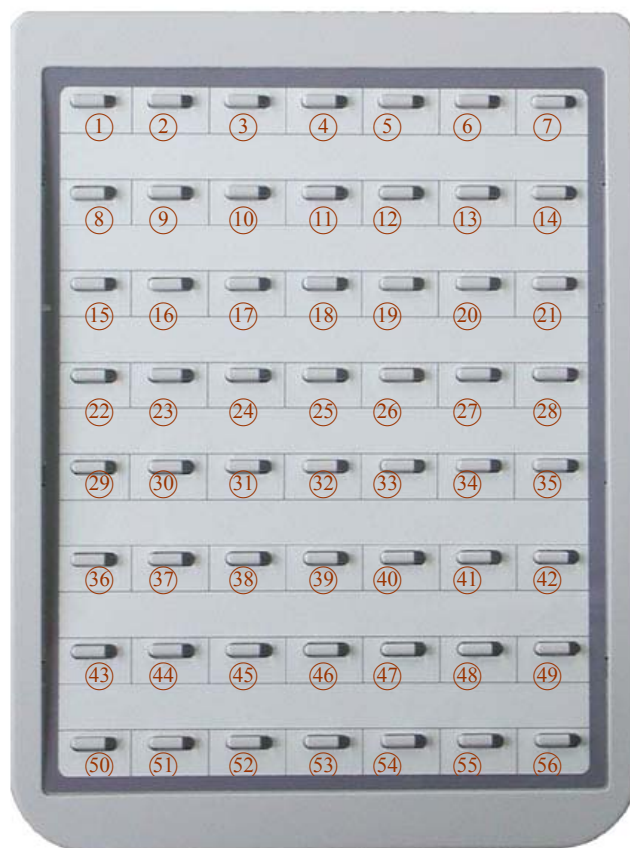
The 3rd DSS key → Station no. 22

The 2nd DSS key → Station no. 21

The 1st DSS key → Station no. 20

The 5th DSS key → Station no. 24

The 9th DSS key → Station no. 28



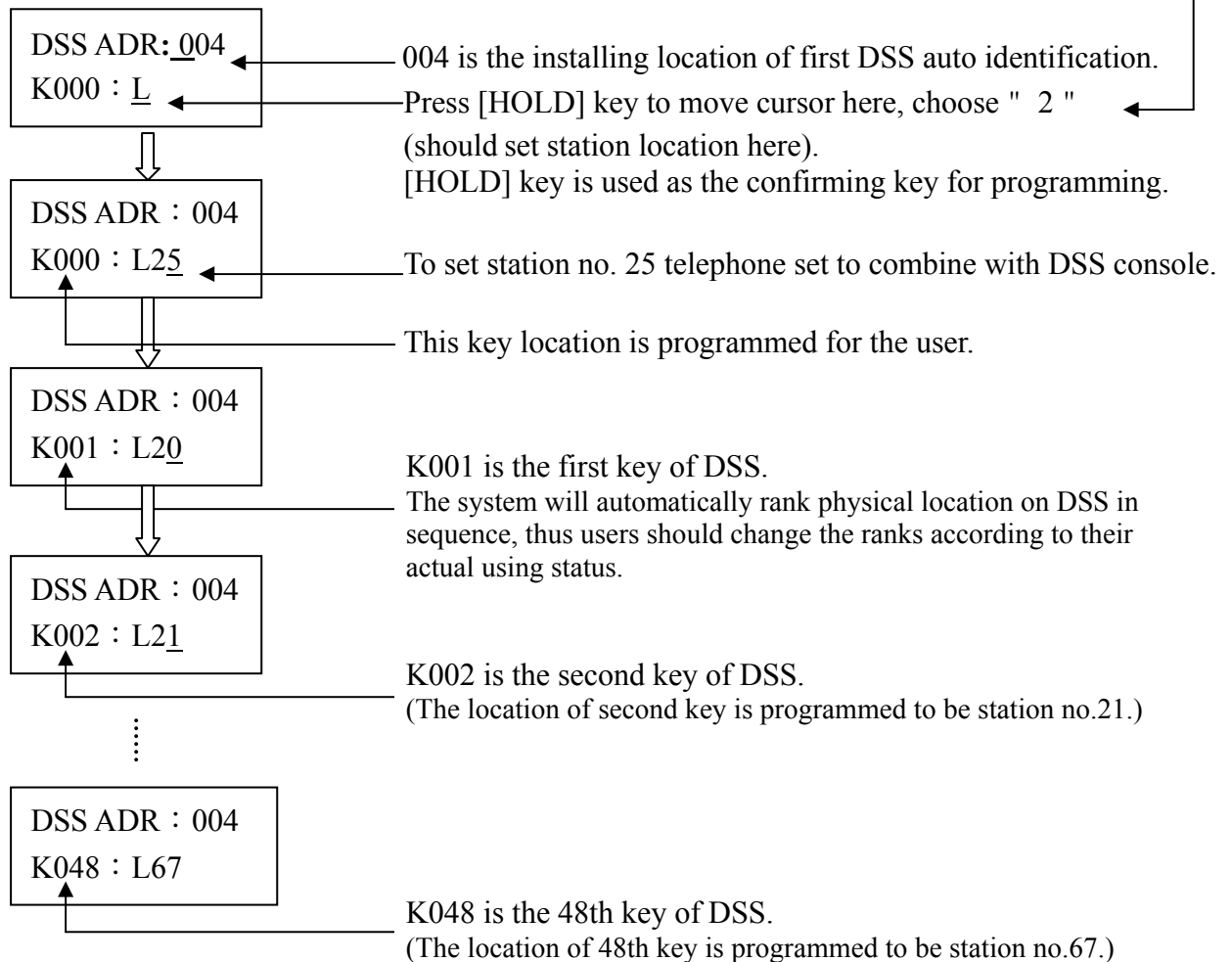
## 2.8.2 Programming (use station no. 25 for programming ):

Operation : press [SPKR] → [HOLD] (press twice within one second) → enter [2][6][5][6] or other setting password → enter the kind [5] → [HOLD] → enter flexible code physical location of DSS key.

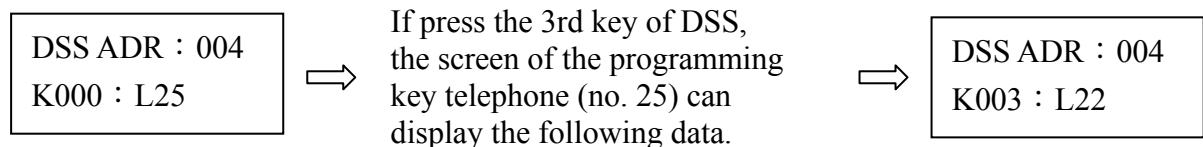
Enter the function code of intended program, refer to kind 2 item 46 for the application of first code as follows:

[0]: unused	[1]: function	[2]: station	[3]: CO line
[4]: doorphone	[5]: physical location	[6]: PBX1	[7]: PBX2
[*]: next key	[#]: last key		

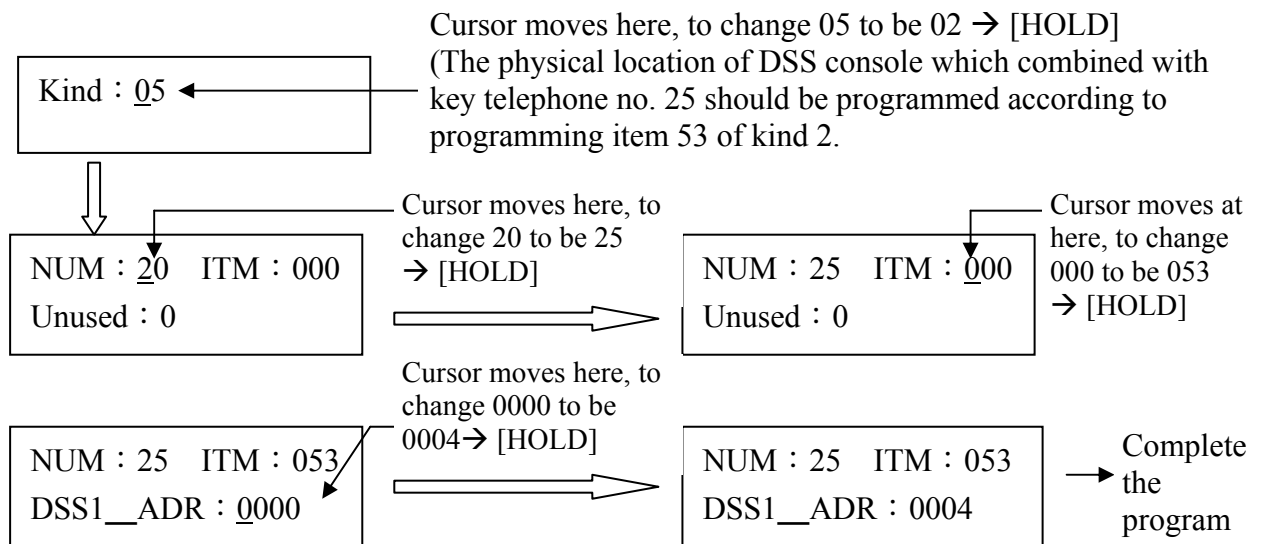
Ex. Physical location K000 of DSS console to set for station no. 25.



Remark: If DSS console user who is making the program by the combined telephone set, he can enter the location of DSS key as per following ways.



After programming all the DSS keys → press [REDIAL] key repeatedly then it will display on screen as below:

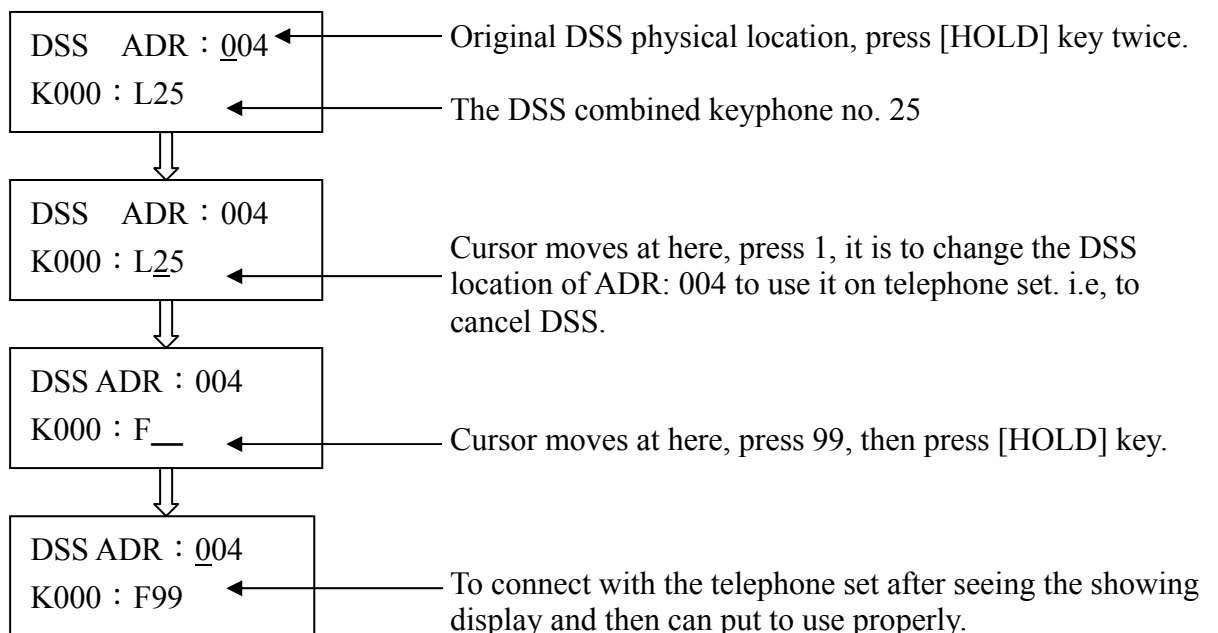


Remark: Each digital key telephone can be combined with max. 3 DSS consoles.  
(Related program: kind 2 item 55-53)

**2.8.3 After all the DSS programs have been set and start to run, if want to change the DSS console to telephone set, firstly to move away the DSS console, then to proceed relate programming as below: (if the following steps haven't been changed, then the station can not be properly used.)**

Operation : press [SPKR] → [HOLD] (press twice within one second) → enter [2][6][5][6] or other setting password → enter the kind [5] → [HOLD] → enter flexible code physical location of DSS key.

Display on the screen:

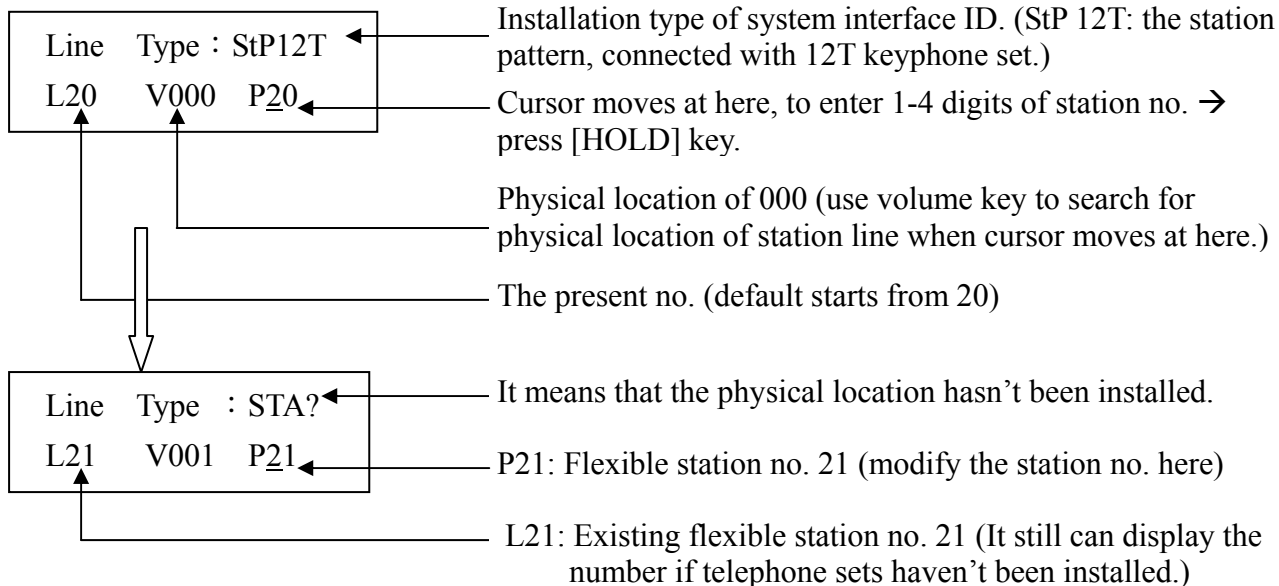




## 2.9 Flexible Number Programming: Kind 6 (for CO line/station/doorphone/voice mail box...etc. number plan)

Operation : press [SPKR] → [HOLD] (press twice within one second) → enter [2][6][5][6] or other setting password → enter the kind [6] → [HOLD]

Display on the screen:  
(changing the station no.)

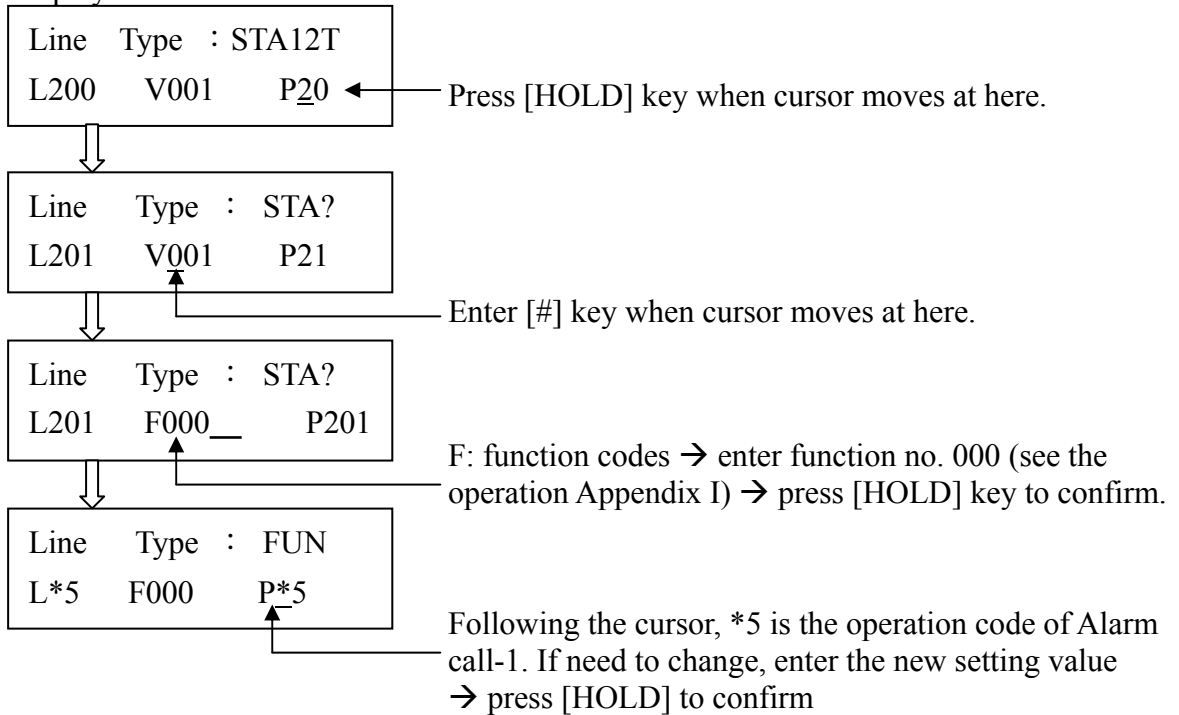


Remarks:

1. To change other numbers as per the above mentioned method.
2. Use volume key to adjust the upper/lower physical location.

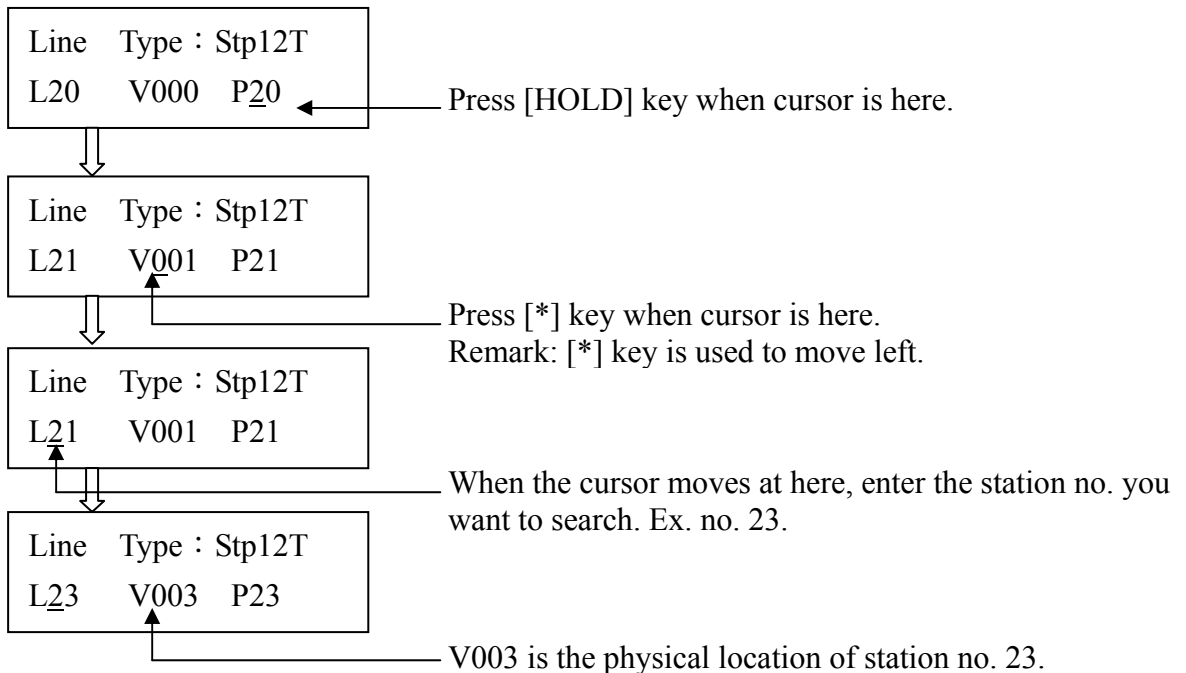
### 2.9.1 Change the flexible function number:

Display on the screen:



- Note:
1. Don't enter the possibly repeated numbers. Ex. \*\*\* and \*\*\*1 (\*\*\*) is repeated)
  2. If repeatedly to program the same number, the system will delete the repeated old number automatically.

### 2.9.2 Searching for physical location:



## 2.10 Limited / Allowed Dialing Table: Kind 7

Operation : press [SPKR] → [HOLD] (press twice within one second) → enter [2][6][5][6] or other setting password → enter the kind [7] → [HOLD]

Display on the screen:

Limit Table:0
00:108

0-5: Limited table (there are 30 sets of limited dialing no. in each table.)

6-8: Allowed table (there are 30 sets of allowed dialing no. in each table.)

2.10.1 Each set of the dialing number can be entered 8 digits.

2.10.2 Please press volume key (▲ or ▼) to select last / next set.

2.10.3 Please match to kind 1 item 33-38 for programming.

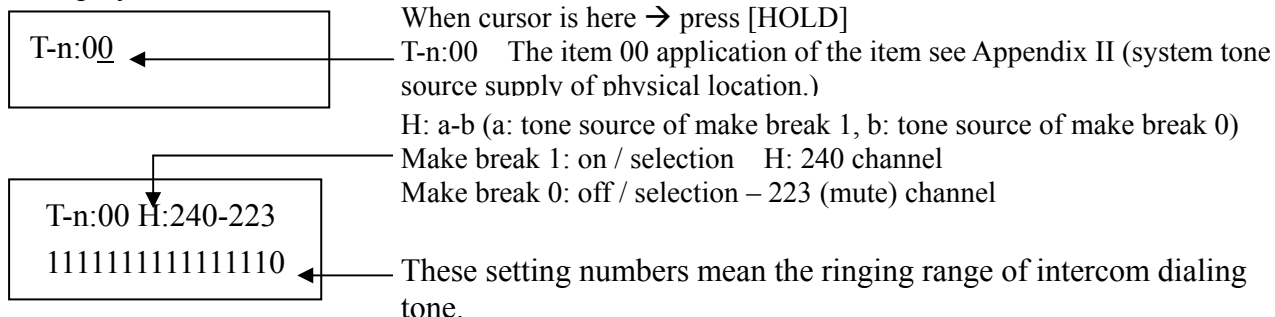
2.10.4 Original setting number:

The table 0 : 108 180 ← The 1st limited dialing no. of table 0 is 108.  
The table 1 : 100 00 012 1800 ← The 2nd limited dialing no. of table 0 is 180.  
The table 2 : .....  
The table 3 : .....  
The table 4 : .....  
The table 5 : .....  
The table 6 : 1 2 3 4 5 6 7 8 9 \* # 060 070 080 081 ← The 4th limited dialing no. of table 1 is 1800.  
The table 7 : .....  
The table 8 : .....  
The 1st allowed dialing no. of table 6 is 1.  
The 15th allowed dialing no. of table 6 is 081.  
The 14th allowed dialing no. of table 6 is 080.

## 2.11 Tone Source / Make Break Programming: Kind 8

Operation : press [SPKR] → [HOLD] (press twice within one second) → enter [2][6][5][6] or other setting password → enter the kind [8] → [HOLD]

Display on the screen:



2.11.1 Please refer to Appendix II for the channel location.

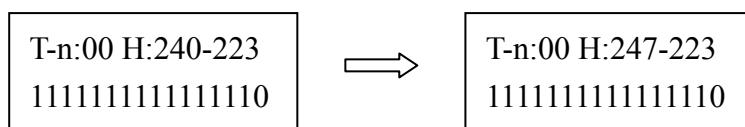
2.11.2 Each break means the time is set according to kind 1 item 28. The initial value is 0.2 sec.

2.11.3 Operation steps:

1. Please key in the number for choosing the item, then modify it.
2. Using [\*], [#] key to move the cursor. Press [\*] key, the cursor moves to the left. Press [#] key, the cursor moves to the right.
3. If want to listen, press [PAGE] key for shifting.
4. Use adjustable volume key to change the item.

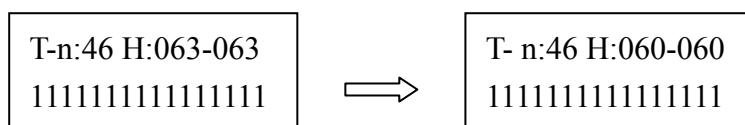
Ex 1. To change 350/440Hz to be 400Hz for internal dialing tone.

Operation: enter program kind [8] → enter item [0][0] → [HOLD] → enter [2][4][7] → [#] → enter [2][2][3] → [HOLD]



Ex 2. To change "On-hold music" to be external "Background music"

Operation: enter program kind [8] → enter item [4][6] → [HOLD] → enter [0][6][0] → [#] → enter [0][6][0] → [HOLD]



### 2.11.4 Tone source and default

Item	Description	Default	Remark
00	Internal dialing tone	240 – 223 1111111111111110	
01	Internal dialing tone with setting "Do Not Disturb"	240 – 223 1110011111111110	
02	Dialing tone for call transfer	240 – 241 1111000011110000	
03	Dialing tone of LCR/ARS	247 – 223 1111111111111111	
04	Dialing tone of voice mail message	240 – 223 1010111111111110	
05	Internal dialing tone when set up the forwarding	240 – 223 1111111111111110	
06	Dialing tone for virtual CO	247 – 223 1111111111111110	
07	Ringing back tone for reservation	241 – 223 1100110000000000	
08	Ringing back tone for recall	241 – 223 1111100000000000	
09	Ringing back tone for busy station camp-on	063 – 063 1111100000000000	
10	Ringing back tone	241 – 223 1111100000000000	
11	Confirmed ringing back tone for programming OK	247 – 223 1111100000000000	Ringing time 1.6 second
12	Ringing back tone for lifting handset during alarm	063 – 063 1111100000000000	
13	Ringing back tone for doorphone	063 – 063 1100111110000000	
14	Ringing back tone for absent station message	240 – 223 1111100000000000	
15	Ringing back tone for CO transfer	241 – 223 1111100000000000	
16	Ringing back tone for programming leaving message	241 – 223 1100110011001100	
17	Called party's busy tone	242 – 223 1100110011001100	
18	Warning tone if called party hang up during speaking	242 – 223 1100110011001100	
19	Set up/ cancel the Ringing back tone	241 – 223 1100110011001100	
20	Warning tone for no-dialing	242 – 223 1100110011001100	
21	Warning tone when dial wrong number	242 – 223 1100110011001100	
22	Dialing number over COS (class of service) warning tone	242 – 223 1100110011001100	
23	Over Call time limited warning tone	242 – 223 1100110011001100	
24	Call DND station warning tone	063 – 063 1100110011001100	
25	Help ringing tone	243 – 223 1111110000000000	(DSS+9999)
26	Ringing voice of doorphone transfer	245 – 223 1111100000011100	
27	Alarm ringing tone	245 – 223 1100110011001100	
28	Ringing tone for reserve recall	245 – 223 1111100000000000	
29	Ringing tone for incoming call	245 – 223 1111100000000000	
30			
31	Station call ringing tone	245 – 223 1100111111000000	

#### 2.11.4 Tone source and default

Item	Description	Default	Remark
32	Doorphone call ringing tone	245 – 223 1111100000000000	
33	Special line call ringing tone	245 – 223 1111111110000000	
34	CO call transfer ringing tone	245 – 223 1111100000000000	
35	Un-discriminating ringing tone	245 – 223 1111100000000000	
36	Recall ringing tone	245 – 223 1111100000000000	
37	Override warning tone	243 – 223 1111000000000000	Tone time 1.6 second
38	Warning tone for on-line recording	243 – 223 1000000000000000	Tone time 1.6 second
39	Warning tone for time limitation	243 – 223 1101000000000000	Tone time 1.6 second
40	Warning tone for incoming CO line	243 – 223 1010101000000000	Tone time 1.6 second
41	Warning tone for doorphone call	243 – 223 1010101000000000	Tone time 1.6 second
42	Warning tone of CO incoming call transfer	243 – 223 1110000000000000	Tone time 1.6 second
43	Warning tone for each interval time	243 – 223 1000000000000000	Tone time 1.6 second
44	Warning tone for handset is not well on-hook	243 – 223 1111001111000000	Tone time 1.6 second
45	Hold music of transfer	063 – 063 1111100000000000	
46	Music on hold	063 – 063 1111100000000000	
47	Background music	063– 063 1111111111111111	
48			
49			
50			
51			
52	Active Handsfree warning tone	243 – 223 1101010000000000	
53			
54	Station call second warning tone	243 – 997 1101010000000100	Match to use the UD-36TDHFE new SW The left 8 bytes is the intermittent ratio, the Bit 8 of the right 8 bytes is the frequency of warning tone, B2-0 is the volume of warning tone, K18 is the warning time
55	CO call second warning tone	243 – 997 1101010010000100	
56	Doorphone call second warning tone	243 – 997 1101010010000100	

## 2.12 Tone Source Time Programming (match to program kind 8): Kind 18

Operation : press [SPKR] → [HOLD] (press twice within one second) → enter [2][6][5][6] or other setting password → enter programming kind [1][8] → [HOLD] → enter programming item no. → [HOLD] → enter time (0000 – 9999)

2.12.1 Time unit is according to kind 1 item 28 to program. The initial value is 0.2 sec.

2.12.2 For item using, please refer to 2.11.4 tone source name and default.

2.12.3 To change item, please adjust by [VOLUME] key.

## 2.13 The Signal Volume Adjustment of System Tone Source: Kind 19

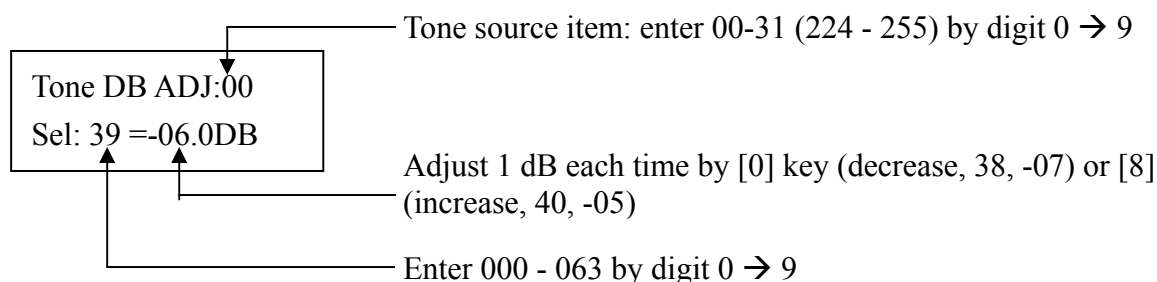
Operation : press [SPKR] → [HOLD] (press twice within one second) → enter [2][6][5][6] or other setting password → enter programming kind [1][9] → [HOLD] → enter programming item no.

2.13.1 System can supply 32 items tone source, in kind 18, 00 → 31 means channel position 224→225.

2.13.2 Please adjust by using [VOLUME] key to change item.

2.13.3 The signal volume adjustment of item 24-26 (for page prelude tone, coda tone & doorphone) are not workable to this operation.

2.13.4 Please adjust cursor position by using [\*] or [#] key as follows:



## 2.14 Account Code Programming: Kind 11

Operation: press [SPKR] → [HOLD] (press twice within one second) → enter [2][6][5][6] or other setting password → enter programming kind [1][1] → [HOLD] → 400 sets account code (It can be programmed 4 or 8 digits, the previous 4 digits can be printed by RS-232 simple metering).

2.14.1. 0-99 sets, refer to the class of program kind 1 item 81.

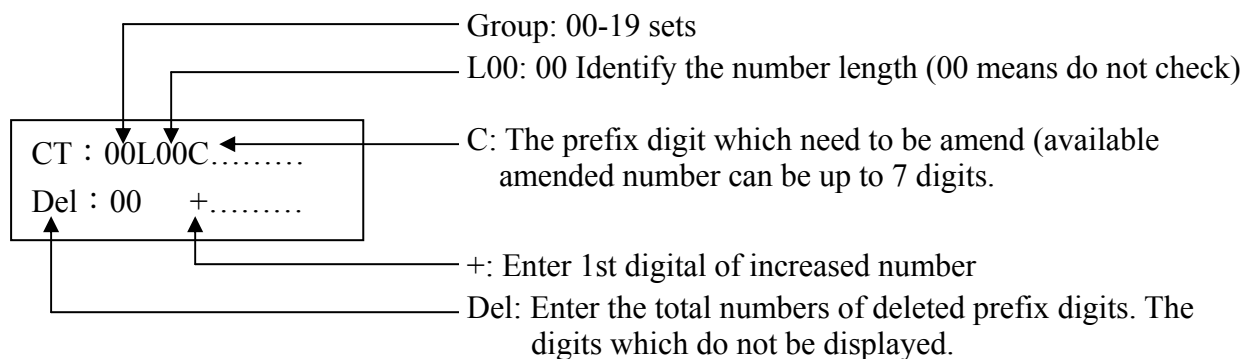
2.14.2. 100-199 sets, refer to the class of program kind 1 item 82.

2.14.3. 200-299 sets, refer to the class of program kind 1 item 83.

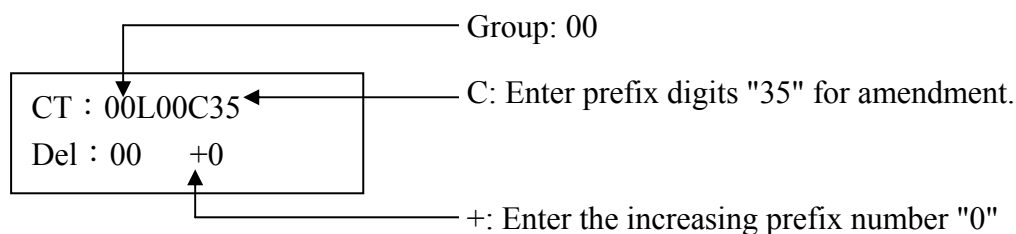
2.14.4. 300-399 sets, refer to the class of program kind 1 item 84.

## 2.15 Programming for Changing Caller ID Display Status: Kind 14

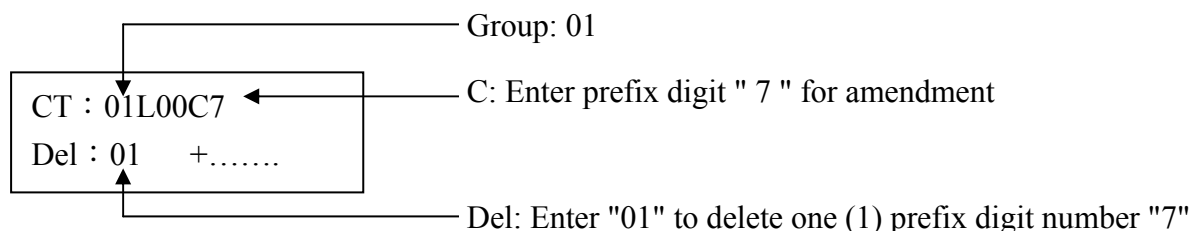
Operation: press [SPKR] → [HOLD] (press twice within one second) → enter [2][6][5][6] or other setting password → enter programming kind [1][4] → [HOLD]



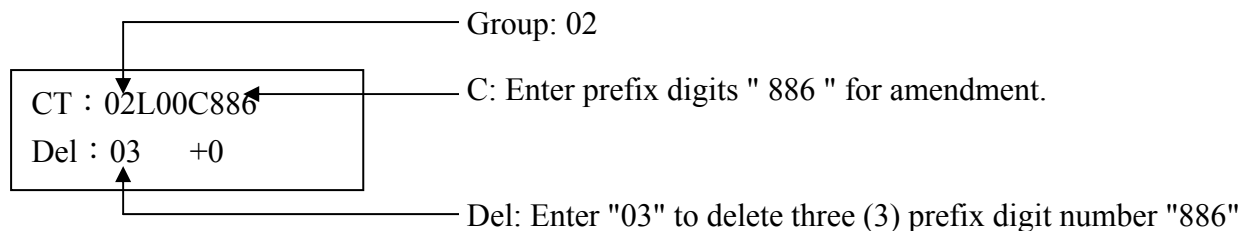
Example 1: Change the CID no. from 35\*\*\*\*\* to be 035 \*\*\*\*\* (increasing display "0")



Example 2: Change the CID no. from 7\*\*\*\*\* to be \*\*\*\*\* (do not display "7")



Example 3: Change the CID no. from 8862\*\*\*\* to be 02\*\*\*\* (do not display 886, but add to display " 0 ")





## 2.16 Remote Programming

### 2.16.1 Asking Remote Programming:

During CO line talking, press [TRAN] key, then press "\*\*\*1"

### 2.16.2 Execute Remote Programming Service:

During CO line talking, hear remote programming remind tone, press [TRAN], then press "\*\*\*0" to start the remote programming.

Remark: The programming operation is the same as the relative programming manual but the tone source program can't try to hear and can't make the "CLEAR ALL" program.

## 2.17 Least Cost Route (LCR) Programming

Least Cost Route is a system programmable feature that automatically selects the least cost route available at the time an outside call is made.

LCR had associated with ARS (Automatic Route Selection) in the system.

**The following is 5 different kinds for programming LCR table:**

**KIND 21** : LCR Parameter Set

**KIND 22** : LCR Prefix Code Table

**KIND 23** : LCR Time Table

**KIND 24** : LCR Adjust Code Table

**KIND 25** : ARS Group Table

### Related Programming Reference

**KIND 2-126** : Assign the appropriate extension to ARS group.(01-09 , 00 is invalid).

**KIND 2-133** : LCR Pointer of extension, point to any Table number as start pointer.

**KIND 2-135** : LCR display mode.

**KIND 3-47** : Assign the appropriate CO line to ARS group.(01-09 , 00 is invalid).

**KIND 3-94** : LCR Pointer of CO line (used for call forwarding-CO to CO line).

**KIND 3-98** : whether to check the ARS group or not, when assign a CO line to dial outgoing telephone number and execute LCR.

**KIND 6** : **Function Number 【31】** set **Function Code** to start LCR.

### LCR Programming Steps

**Step1** : enter **KIND 6** and set a **Function Code** of **Function Number 【31】** to start LCR.

**Step2** : enter **KIND 3-47** to Assign the appropriate CO line to ARS group .

**Step3** : enter **KIND 2-133** to Assign LCR Pointer, point to any Table number as start pointer.

**Step4** : enter **KIND 21 , 22 , 23 , 24 , 25** to set LCR table.

### Programming Example:

The following is an example to show how to program LCR so that the user can dial outside call via the least expensive line.

Program LCR to work when the Function Code for LCR is dialed by the user .

### 2.17.1 KIND 21: LCR Parameter PGM

Set every table length and ARS hunting mode first.

Each table length max. 200.

All table length total max. 400.

When **KIND 22, 23, 24** PGM have been finished, please don't change again. Every KIND of 22, 23 & 24 must match to re-program if any program of kind 22, 23 or 24 was to be changed.

No.	Item Name	Default	Remark
00	LCR Prefix Code Table Length (PGM kind: 22)	200	Setting value: 000-199 Table pointer assigned 100 to 299
01	LCR Time Table Length (PGM kind: 23)	50	Setting value: 000-049 Table pointer assigned 300 to 349
02	LCR Adjust Code Table Length (PGM kind: 24)	100	Setting value: 000-099 Table pointer assigned 500 to 599
03	ARS Group Table Length (PGM kind: 25)	50	Setting value: 000-049 Table pointer assigned 700 to 749
04	ARS1 Hunting Mode	0	0:circulating hunting CO line 1:start to access from first CO line 2:start to access from last CO line
05	ARS2 Hunting Mode	0	Same as above
06	ARS3 Hunting Mode	0	Same as above
07	ARS4 Hunting Mode	0	Same as above
08	ARS5 Hunting Mode	0	Same as above
09	ARS6 Hunting Mode	0	Same as above
10	ARS7 Hunting Mode	0	Same as above
11	ARS8 Hunting Mode	0	Same as above
12	ARS9 Hunting Mode	0	Same as above

### 2.17.2 KIND 22: LCR Prefix Code Table

Max. Table pointer range is 100 - 299. Max. prefix digits: 12

Store the prefix digits of number to LCR Prefix Code Table. The system will verify this table, and point to other table.

For example, the telecommunication service provider's telephone number is "1234xxxxx" to "1239xxxxx", other service provider's telephone number is "5678xxxxx" to "5679xxxxx"

Prefix digits 1806 and 00 point to LCR Adjust Code Table.

#### Keyphone programming:

**KIND 22**  
**LCD display**

000C1234.....
1239.....P300

<b>000C:</b> LCR Prefix Code Table , Item 000 (P100) <b>1234:</b> Prefix digit start from 1234 <b>1239:</b> Prefix digit up to 1239 <b>P300:</b> point to LCR Time Table , Item 000 (P300)
---

**LCR Prefix Code Table 200**

Item	Pointer	Prefix Code	Next Pointer	Remark
000	P100	1234 to 1239	P300	Prefix digits from 1234 to 1239 number, point to LCR Time Table , Item 000 (P300)
001	P101	5678 to 5679	P703	Prefix digits from 5678 to 5679 number, point to ARS Group Table , Item 003 (P703)
002	P102	1806 to 1806	P500	Prefix digits are 1806 ,point to LCR Adjust Code Table , Item 000 (P500)
003	P103	00 to 00	P502	Prefix digits are 00 ,point to LCR Adjust Code Table , Item 002 (P502)
004	P104	..... to .....	P000	Stop searching. If dialed out number don't find from above, the system will indicate <b>【OVER CLS】</b> on screen of phone.
005	P105	..... to .....	P000	
:	:	:	:	
:	:	:	:	
199	P299	..... to .....	P000	

### 2.17.3 KIND 23: LCR Time Table

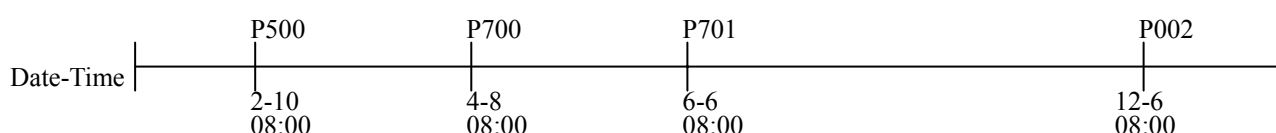
Max. Table pointer range is 300 - 349

Check all carriers available time list for fee charged. The system can select the least expensive available route and carrier at certain time.

This table can set least cost time of some holiday or special day if provided from carrier.

And disable to check month day when you fill **"00-00"** to **Month-Day** field.

Following example to explain how to program time zone .



#### Keyphone programming:

KIND23  
LCD display

000:Time Select
02-10 08:00 P500

<p><b>000</b> : LCR Time Table , Item 000 (P300)</p> <p><b>02-10</b> : enter starting Month-Day, fill "00-00" → do not check month/day</p> <p><b>08:00</b> : enter starting Time</p> <p><b>P500</b>: point to LCR Adjust Code Table, item 000 (P500)</p>
--

**LCR Time Table 50**

Item	Pointer	Date / Time	Next Pointer	Remark
000	P300	02-10 08:00	P500	2-10, 08:00 to 4-8, 07:59 , point to LCR Adjust Code Table , Item 000 (P500)
001	P301	04-08 08:00	P700	4-8, 08:00 to 6-6, 07:59 , point to ARS Group Table , Item 000 (P700)
002	P302	06-06 08:00	P701	6-6, 08:00 to 12-6, 07:59 , point to ARS Group Table , Item 001 (P701)
003	P303	12-06 08:00	P002	12-6, 08:00 to 2-10, 07:59 , dial-out from ARS002(P002) if ARS002 is busy, system will give up .
004	P304	00-00 00:00	P000	Stop
005	P305	00-00 08:00	P703	Every day from 08:00 to 16:59 , point to ARS Group Table , Item 003 (P703)
006	P306	00-00 17:00	P704	Every day from 17:00 to 07:59 , point to ARS Group Table , Item 004 (P704)
007	P307	00-00 00:00	P000	Stop
:	:	:	:	:
:	:	:	:	:
049	P349	00-00 00:00	P000	Stop

#### 2.17.4 KIND 24: LCR Adjust Code Table

Max. Table point range is 500 - 599

Max. Added prefix digits 20.

Use the "LCR Adjust Code Table" program when it is necessary to delete some prefix digits and/or add digits from the user-dialed number.

For example, if the user manually dial a Carrier Access Code but the carrier is not the least cost, modification is required. For example, to delete "1806" from the beginning of the user-dialed number and add "1807", enter "-04" field, and enter "+1807" field.

When "1806-073721153" is dialed,

The 4 digits are deleted and "1807" is added.

"1807-073721153" is dialing out.

#### Keyphone programming:

KIND24
LCD display
000J-04+1807.....
.....P700

**000J** : LCR Adjust Code Table , Item 000(P500)  
**-04** : the 4 digits are deleted  
**+1807:** and "1807" is added  
**P700** : point to LCR ARS group Table , Item 000(P700)

LCR Adjust Code Table 100

Item	Pointer	Adjust code	Next Pointer	Remark
000	P500	-04+1807	P700	The 4 digits are deleted and 1807 is added , then point to LCR ARS group Table , Item 000(P700)
001	P501	-00+.....	P701	Number don't change , direct to LCR ARS group Table , Item 001(P701)
002	P502	-03+006..	P702	The prefix 3 digits are deleted and 006 is added , then point to LCR ARS group Table , Item 002(P702)
003	P503	-00+.....	P003	Direct dial-out from ARS003(P003) , if it is busy that system will give up .
004	P504	-00+.....	P000	System dial-out from a available CO line
005	P505	-00+.....	P000	:
:	:	:	:	:
:	:	:	:	:
099	P599	-00+.....	P000	:

### 2.17.5 KIND 25: ARS Group Table

Check all carriers available to call their CO line ARS groups or STA(station) ARS groups.

Fill ARS Group to LCR for ARS Group Table in sequence.

#### Keyphone programming:

KIND25  
LCD display

000ARS001→002→
003→004

000 : ARS Group Table 0, Item 000(P700)  
ARS001→002→003→004:  
**Program ARS group sequence 001→002→003→004**  
**If all line occupied in ARS group 001 system will check**

ARS Group Table 50

Item	Pointer	ARS/Group	Remark
000	P700	ARS001→002→003→004	If all line occupied in ARS001 , search next ARS002→003→004
001	P701	ARS001→000→000→000	Dial-out from ARS001 , If all line occupied in ARS001 System will dial-out from normal CO line.
002	P702	ARS009→002→003→004	If all line occupied in ARS009→002→003→004 , System will indicate busy on screen of phone.
003	P703	ARS009→009→000→000	Dial-out from ARS009 , If all line occupied in ARS009 , System will indicate busy on screen of phone. When search same ARS009,the system stop to search next
004	P704	ARS000→000→000→000	Dial-out from normal CO line.
:	:	:	:
:	:	:	:
049	P749	ARS000→000→000→000	Dial-out from normal CO line.

## 2.18 User's Name Setup

There are two ways to input the user's name:

1. To input on keyphone : \*\*\*6 (PGM kind 6, item 115) → key in personal user's name
2. To input on programmer : Kind 27 → key in all user's name

Remark:

a) Max. 8 characters.

b) Key in ASCII (Symbol 、 Number 、 English Alphabet) as following synopsis:

ASCII Table

	Low 4-bit															
High 4-bit	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
2		!	"	#	\$	%	&	'	(	)	*	+	,	-	.	/
3	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
4	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
5	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
6	'	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
7	p	q	r	s	t	u	v	w	x	y	z	{		}		

Remark: For setting the code of "A", "B", "C", "D" "E" & "F", press CO line keys TK1, TK2, TK3, TK4, TK5 & TK6 as follows:

Low 4-bit	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Phone Key	0	1	2	3	4	5	6	7	8	9	TK1	TK2	TK3	TK4	TK5	TK6

### [Simple Table]

-----

A=41	B=42	C=43	D=44	E=45	F=46	G=47	H=48	I=49	J=4A
K=4B	L=4C	M=4D	N=4E	O=4F	P=50	Q=51	R=52	S=53	T=54
U=55	V=56	W=57	X=58	Y=59	Z=5A				

-----

a=61	b=62	c=63	d=64	e=65	f=66	g=67	h=68	i=69	j=6A
k=6B	l=6C	m=6D	n=6E	o=6F	p=70	q=71	r=72	s=73	t=74
u=75	v=76	w=77	x=78	y=79	z=7A				

-----

Ex : The user's name of station no.20 is **John.T** (ASCII: 4A 6F 68 6E 2E 54)

Operations:

Way 1. Direct to press \*\*\*6 → press 4+TK1+6+TK6+6+8+6+TK5+2+TK5+5+4+ HOLD

Way 2. Refer to kind 27 and press → press 4+TK1+6+TK6+6+8+6+TK5+2+TK5+5+4+ HOLD

P.S. You can refer to the directory of all users' names on function no. **F51** (operation code: \*151). Then select the station you would like to call.

→ press \*151 → press Volume "▲" or "▼" to select the station user's name → press "HOLD" → dial out



1. NoAnswer T06-05/25-11:38=73721153 3 Sec

```
graph LR; A["1. NoAnswer T06-05/25-11:38=73721153 3 Sec"] --- B["No Answer"]; A --- C["TRK 6"]; A --- D["Date"]; A --- E["Hour"]; A --- F["Minute"]; A --- G["Telephone Number"]; A --- H["Ringing time"]
```

No Answer

TRK 6

Date

Hour

Minute

Telephone Number

Ringing time

2. L20Anser T06-11/01-08:51=73721153 3 Sec

└─ Ext.200 Answers

└─ TRK 6

└─ Month

└─ Date

└─ Hour

└─ Minute

└─ Telephone Number

└─ Ringing time

4. L20Anser T06 7 Sec (P.S. No incoming telephone no.)

### 3.2.1 To send the "CI" command and station number with 0DH, 0AH by RS-232 to the ISDK system.

Example: "CI 20" 0DH, 0AH means to setup "Check in" for station No.20.

- A. Display "OK CI", station No., 0DH, 0AH: Means check in OK.
- B. Display "Double Check in", station No., 0DH, 0AH means repeatedly check in.
- C. Display "Can't find out physical number!" 07H, 07H, 0DH, 0AH means there is no this station number.
- D. Display "Can't CI in Function!" 07H, 07H, 0DH, 0AH means the number is function code.
- E. Display "Station number over 4 digits, can't check in!" 07H, 07H, 0DH, 0AH means the number is over 4 digits.



**3.2.3 To clear the following station old program data: (The office used station is not included.)**

- A. CO Call Times and Bill**
- B. Password**
- C. DISA Password**
- D. Alarm Call (Morning Call)**
- E. Do Not Disturb**
- F. Call Forwarding (Including Busy Line & Over Ringing)**
- G. Busy Station Queuing**
- H. Redial and Redial Memory**
- I. Background Music**
- J. Message Waiting**
- K. Absent Station Message**

**3.2.4 To setup the station class of service: Setup Day Class**

### **3.3 Check Out Program**

**3.3.1 To send the "CO" command and station number with 0DH, 0AH to the ISDK system. by RS-232**

When attendant telephone sends the "CO" command, it also send the same command to the RS-232.

Example: "CO 20" 0DH, 0AH means to setup "check" out for station No.20

**3.3.2 System display instruction:**

- A. Display "OK CO", station No., 0DH, 0AH means check out OK.**
- B. Display "Double check out", station number, 0DH, 0AH means repeatedly check out.**
- C. Display "Can't find out physical number!" 07H, 07H, 0DH, 0AH means there is no this station number.**
- D. Display "Can't CO in Function!" 07H, 07H, 0DH, 0AH: Means the number is function code.**
- E. Display " Station number over 4 digits, can't check out!" 07H, 07H, 0DH, 0AH means the number is over 4 digits.**
- F. Display "Check Out on talking line!", 07H, 07H, 0DH, 0AH means the station under check out on Talking line.**

**3.3.3 To clear the following programmed data: (The office used station is not included.)**

- A. Password**
- B. DISA Password**
- C. Alarm Call (Morning Call)**
- D. Do Not Disturb**
- E. Call Forwarding (Including Busy Line & Over Ringing)**
- F. Busy Station Queuing**
- G. Redial and Redial Memory**
- H. Background Music**
- I. Message Waiting**
- J. Absent Station Message**

└─→ refer to item 62 of kind 2

**3.3.4 To setup the station class of service: setup the "check out" class.**

### 3.4 Morning Call Service

**3.4.1. To send the "ALARM" command, station number and time with 0DH, 0AH by RS-232 to the ISDK system.**

**Example:**

- 1: "ALARM 20 0830-1" 0DH, 0AH means to setup ALARM-1 at 08:30 AM for station no.20.**
- 2: "ALARM 20 \*50729-2" 0DH, 0AH means to setup ALARM-2 at 07:29 AM from every Monday to Friday for station no.20.**
- 3. "ALARM 23 \*70740-5" 0DH, 0AH means to setup ALARM-5 at 7:40 AM every day for station no.23.**

**Remarks: All setup to be ALARM – 1 without sending " -" & "ALARM-No."**

#### **3.4.2 System display instruction:**

- A. Display "OK SET ALARM", station No., time, 0DH, 0AH means the morning call setup OK.
- B. Display "Over 60 minutes!", 07H, 07H, 0DH, 0AH means entering the wrong time of the minutes, over 60 minutes.
- C. Display "Over 24 Hours!", 07H, 07H, 0DH, 0AH means entering the wrong time of the hours, over 24 hours.
- D. Display "Over 7 of one week!", 07H, 07H, 0DH, 0AH means entering the wrong time of the date, over 7 days for one week.
- E. Display "No alarm time", 07H, 07H, 0DH, 0AH means it did not setup the alarm time.
- F. Display "Can't set alarm in Function!", 07H, 07H, 0DH, 0AH means entering the function code, not a station number and can't be setup the morning call.
- G. Display " Can't find out physical number!", 07H, 07H, 0DH, 0AH means the system has no this entering station number.
- H. Display "Partner not a station!", 07H, 07H, 0DH, 0AH means the entering number is not a station number in the system.
- I. Display "Station number over 4 digits, can't set alarm!", 07H, 07H, 0DH, 0AH means the entering station number is over 4 digits so that can't be setup morning call.
- J. Display "No partner to set alarm!", 07H, 07H, 0DH, 0AH means none of the station numbers to be set up morning call.

#### **3.4.3 How to setup the alarm time?**

**A. Hours: 00 ~ 23 Minutes: 00 - 59.**

**B. To enter the time of week date, hour and minute for every day's morning call within the setup week Date.**

**Note: (1) Please enter "\*" prior to the week date.**

**(2) Week date: From "1" to "7"**

**\* 1 07:30 (Alarm at 7:30 every Monday)**

**\* 5 07:30 (Alarm at 7:30 from every Monday to Friday).**

**\* 7 07:30 (Alarm at 7:30 every day)**

**C. To enter "C" instead of "\*" at the first digit of the alarm time to clear or cancel the morning call.**

**D. To enter Hour, Minutes, without date for only one time of morning call.**

#### **3.4.4 When the Morning Call time is coming, RS-232 will send the following messages:**

- A. The station is ringing: "ALARM\_ringing", station No., 0DH, 0AH.
- B. The station is answering: "ALARM\_Hook\_OFF", station No., 0DH, 0AH.
- C. No answer: "ALARM\_NO\_ANS", station No., 0DH, 0AH.
- D. To be picked up: "Pick\_Up\_alarm", 4-digit station No., the pick up station No.,  
"ALARM\_HOOK\_OFF" station No., 0DH, 0AH.

### **3.5 To Check The Current Time Of System**

#### **3.5.1 To send "? TIME" command with 0DH, 0AH from the RS-232 of PC**

Example: To enter "? TIME", 0DH, 0AH → system display Date time: 00/05/17 23:59:59

#### **3.5.2 System display: "Date time:" year/month/date, hour: minute: second, 0DH, 0AH.**

## 4. Appendix

### 4.1 Appendix I. Programmable function, function name and operation code list

Function Number	Function Name	Operation Code	Function Number	Function Name	Operation Code
0	Alarm call-1	*5	42	PBX(2) CO line auto hunting	
1	Call group		43	Station auto hunting	
2	Call forwarding	*102	44	Cancel message waiting	
3	Disconnecting key		45	Set message waiting	
4	Speed dialing	#	46	Memory dialing	
5	Activate SLT function key		47	Message waiting & call back	
			48	Background music	*148
6	Individual pick-up	*106	49	Mute	
7	Group pick-up	*6	50	Handsfree MIC switch	
8	System pick-up	*108	51	User's name directory	*151
9	Call my group server		52		
10	Call system server	9	53	Display the calling cost	
11	Set "DND" or cancel		54	Volume control	*154
12	Absent station message		55	Retrieve flexible function key	
13	Call group server		56	Start "TRAN" key to join conference call	
14	Manager password	*114	57	Start the auto-answer	
15	Password lock		58	Call park code	*158
16	Change password		59	Account code	
17	DISA password		60	Message display LED on DSS	
18	Set CO to CO telephone no.		61	Room Service	
19	Redial	*7	62	Check-in	
20	Auto Redial	*8	63	Check-out	
21	Conference call		64	Night transfer	*164
22	One-touch dialing		65		
23	Activate Auto call forwarding-CO to CO		66		
			67		
24	CO line auto hunting	0	68	Morning call	
25	Answer CO incoming call	*125	69	Display station DND status	
26	Assign CO line	*0	70		
27	Setup all "DND"		71		
28	To clear all "DND"		72	Display the other station call cost	
29	Set/cancel "DND"	*129	73	Alarm call-2	
30			74	Alarm call-3	
31	LCR/ARS code		75	Alarm call-4	
32	One-touch continuously dialing		76	Alarm call-5	
33	Page to keyphone		77	Alarm call-6	
34	Hot line key		78	Day call forward telephone no.	*178
35			79	Night call forward telephone no.	*179
36	Retrieve the holding intercom call		80	Push-to-talk button	
			81		
37	Retrieve the holding CO call		82		
38			83	Call Group + #(0-99) group (F43)	
39			84		
40	Remove station class of service		85	On-line recording (SLT)	
41	PBX(1) CO line auto hunting		86	Busy trunk/station queuing	

Function Number	Function Name	Operation Code	Function Number	Function Name	Operation Code
87	Exclusive hold		134		
88	Hold		135		
89	Catch back the hold CO/station line		136		
90	Busy station override		137	Join/active reference call	
91			138		
92	MESSAGE TO RS232		139	Cancel the conference call	
93	Occupied CO/station line grab compelled		140		
			141		
94	Direct CO flash		142		
95	Direct CO recall flash		143	Active Earphone function	
96	Activate CO to CO (manual)		144		
97	Pause key for dialing CO call		145		
98	Upgrade the class of service		146	Hook function	
99			147	Second dialing tone	
100			148	ISDN service key	
101			149	ISDN software version	
102	Set up/ cancel forwarding		150		
103			151		
104			152	To see previous CID number	
105			153	To see next CID number	
106			154		
107			155	IP DSS Key	
108			156	IP Function number	
109	Asking remote programming	***1	157	IP Operation code	
110	Execute remote programming service	***0	158		
111	Test	***2	159		
112			160	Speaker key	
113	Set program	***4	161	IP page key	
114	Set time display of system	***5	162	Transfer key	
115	Set English name	***6	163	Speed Dial key	
116	Phone Book	***7	164	Redial key	
117			165	HOLD key	
118			166	Handset Volume increased key	
119			167	Handset Volume decreased key	
120			168	Incoming directive A	
121			169	Incoming directive B	
122	All station into LED testing mode		170	Door incoming function key	
123			171	Enhance incoming group directive	
124					
125			172	DDI directive of ISDN incoming	
126			173		
127			174		
128			175		
129			176		
130			177		
131	ARS		178		
132			179		
133			180		

## 4.2 Appendix II. System tone source supply physical location

Item	hannel	escription	Item	Channel	Description
--	060	External tone source	---	063	Music on hold source
	223	Mute			
00	224	DTMF signal 0	16	240	Dialing tone 350/440
01	225	DTMF signal 1	17	241	Ringling back tone 440/480
02	226	DTMF signal 2	18	242	Busy tone 480/620
03	227	DTMF signal 3	19	243	Warning tone 1 620
04	228	DTMF signal 4	20	244	Warning tone 2 620
05	229	DTMF signal 5	21	245	Ringling tone 444/555
06	230	DTMF signal 6	22	246	Ring tone 977/1222
07	231	DTMF signal 7	23	247	400Hz
08	232	DTMF signal 8	24	248	Doorphone ringling tone
09	233	DTMF signal 9	25	249	Page prelude tone (tone source 1,2)
10	234	DTMF signal A	26	250	Page coda tone (tone source 3,4)
11	235	DTMF signal *	27	251	480
12	236	DTMF signal #	28	252	424/444
13	237	DTMF signal B	29	253	444/464
14	238	DTMF signal C	30	254	464/484
15	239	DTMF signal D	31	255	Program by yourself

### 4.3 Appendix III. Station flexible number plan

Physical Location	Station No.	Flexible No.	Physical Location	Station No.	Flexible No.
000	20		032	52	
001	21		033	53	
002	22		034	54	
003	23		035	55	
004	24		036	56	
005	25		037	57	
006	26		038	58	
007	27		039	59	
008	28		040	60	
009	29		041	61	
010	30		042	62	
011	31		043	63	
012	32		044	64	
013	33		045	65	
014	34		046	66	
015	35		047	67	
016	36		048	68	
017	37		049	69	
018	38		050	70	
019	39		051	71	
020	40		052	72	
021	41		053	73	
022	42		054	74	
023	43		055	75	
024	44		056	76	
025	45				
026	46				
027	47				
028	48				
029	49				
030	50				
031	51				

Remark: Station no. 20-76 is the "default" number, you can change the station no. flexibly by the program kind 6.

#### 4.4 Appendix IV Programming kinds & items index

Kind 1 (System Program)										
Item	Description									Page
00										<a href="#">27</a>
01	Day/Night transfer type									
02	Manual night transfer type									
03	Page prelude tone									
04	Page coda tone									
05	Night transfer password									
06	Beginning time of day service class									
07	Ending time of day service class									
08	DTMF dialing time									
09	CO recall time									<a href="#">28</a>
10	CO flash time									
11	Pause time									
12	Time display form on display keyphone									
13	Camp-on time for busy station									
14	Assigned re-called station when alarm time is over									
15	Assign hold recall station									
16	Assign camp-on recall station									
17	Interval time of warning tone on speaking									
18	Interval time of alarm re-ringing									
19	No-answer time before transfer re-call									
20										<a href="#">29</a>
21	Holding time before hold re-call									
22	Waiting time for dial tone after hunting CO line									
23	Ringing time before call forward									
24	Ringing time of busy stations reservation									
25	Alarm ringing time									
26	The longest time of power supply for door lock									
27	Mode for hunting station									
28	Time unit of tone break bit									
29	Inter-digit time of CO pulse dialing									
30	Automatic trunk line hunting mode									
31	Programming Password									
32										<a href="#">30</a>
33	Limited /Allow dialing table for 2nd class: City call service class LC2=0: 0 1 2 3 4 5 6									
34	Limited /Allow dialing table for 3rd class: National call service class LC3=0:    1 2 3 4 5									
35	Limited /Allow dialing table for 4th class: International call service class 1 LC4=0:       2 3 4 5									



Kind 1 (System Program)																																																																																																																									
Item	Description											Page																																																																																																													
36	Limited /Allow dialing table for 5th class: International call service class 2 LC5=0: <table><tr><td></td><td></td><td></td><td></td><td>3</td><td>4</td><td>5</td><td></td><td></td><td></td><td></td></tr></table>															3	4	5					<a href="#">30</a>																																																																																																		
				3	4	5																																																																																																																			
37	Limited /Allow dialing table for 6th class: International call service class 3 LC6=0: <table><tr><td></td><td></td><td></td><td></td><td></td><td>4</td><td>5</td><td></td><td></td><td></td><td></td></tr></table>																4	5																																																																																																							
					4	5																																																																																																																			
38	Limited /Allow dialing table for 7th class: International call service class 5 LC7=0: <table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td>5</td><td></td><td></td><td></td><td></td></tr></table>																	5																																																																																																							
						5																																																																																																																			
39	Opening system speed dialing table for over class of service (OCS) OCS=0: <table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> OCS=1: <table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> OCS=2: <table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> OCS=3: <table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> OCS=4: <table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> OCS=5: <table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> OCS=6: <table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> OCS=7: <table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> OCS=8: <table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> OCS=9: <table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>																																																																																																																								
40	Manager password																																																																																																																								
41	RS-232 baudrate																																																																																																																								
42	RS-232 transmission form																																																																																																																								
43	Interval time of warning tone when handset is not well on-hook																																																																																																																								
44	Music source on hold																																																																																																																								
45	Auto-redial time											<a href="#">31</a>																																																																																																													
46	Auto-redial frequency																																																																																																																								
47	Inter-digit time of SLT pulse dialing																																																																																																																								
48	The shortest time of single line telephone flash																																																																																																																								
49	The longest time of single line telephone flash																																																																																																																								
50	The monitor time of trunk line dialing																																																																																																																								
51	Delay time from the CO line to hearing the dialing tone																																																																																																																								
52	Starting bill calculation confirmation for outgoing call																																																																																																																								
53	Starting bill calculation confirmation for incoming call																																																																																																																								
54																																																																																																																									
55																																																																																																																									
56	Waiting time for overriding the busy station																																																																																																																								
57																																																																																																																									
58	Beginning time of holiday																																																																																																																								
59	Ending time of holiday																																																																																																																								
60	Night transfer type for holiday																																																																																																																								
61	Beginning time of noon rest											<a href="#">32</a>																																																																																																													
62	Ending time noon rest																																																																																																																								
63	Night transfer type for noon rest time																																																																																																																								

Kind 1 (System Program)		
Item	Description	Page
64	Interval time of incoming call warning on busy station	<a href="#">32</a>
65	CO line automatic hunting mode for PBX1	
66	CO line automatic hunting mode for PBX2	
67	Alternate time of ringing tone	
68	Digit code for opening electric door lock	
69	Forwarded station status setup	
70	Max. numbers of system speed dialing	
71		
72	Max. numbers of individual speed dialing	<a href="#">33</a>
73	Receiving volume of internal DTMF tone	
74	Min. receiving volume	
75	Max. receiving volume	
76	Beginning volume of auto increase ringing volume	
77	Each scale time for auto increase ringing volume	
78	Auto releasing CO line for no dialing completely	
79	Allow SPEAKER and handset hearing simultaneously	
80	Continue to dial system speed dialing table during speaking	
81	The class of account code 00-99 groups (Table 1)	
82	The class of account code 100-199 groups (Table 2)	
83	The class of account code 200-299 groups (Table 3)	
84	The class of account code 300-399 groups (Table 4)	
85	Internal dialing tone volume of off-hook dialing	
86	Internal dialing tone volume of on-hook dialing	
87	Internal dialing tone volume of on hook dialing for full handsfree keyphone	
88	Delete the repeated storing number of Caller ID	<a href="#">34</a>
89	Select to use RS-232C interface	
90		
91	Queuing way	
92	Ringing times for doorphone	
93	LCR/ARS waiting dialing time	
94	Auto call forwarding - CO to CO	
95	Monthly night transfer type	
96	Beginning time of monthly night transfer	
97	Ending time of monthly night transfer	
98	Working mode of F0216 vocal card	
99	Override working mode	
100	Internal music on hold volume control	
101	Music on hold volume control for F0216 vocal card	
102	Answering volume control for F0216 vocal card	
103		

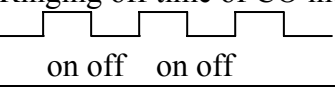
Kind 1 (System Program)		
Item	Description	Page
104	Checking CM (check maintenance) before checking-in	<a href="#">34</a>
105	Auto-start CS (check service) after checking-out	
106		
107	Unmarked some prefix called number digits of the selection on SMDR printing	<a href="#">35</a>
108	Unmarked some prefix called number digits of the selection on SMDR printing	
109	Incoming directive for F168, the waiting time for busy station forwarding	
110	DTMF waiting time	
111	Printing type of RS-232 simple account	
112	Group of call park	
113	Call-Park automatic working mode	
114	Operation mode of idle call-park key	
115	Whether send the busy tone for auto-redial	
116	Response mode for Voice mail	
117	Assigned a forwarded station when all group stations are busy	
118	Whether allows to print details after pressing the account code (match to computer system, do not collide with SMDR)	<a href="#">36</a>
119	Whether allows printing the HELP function	
120	Ringling time for HELP function	
121	Whether allows setting up the company name for the preceding 90 telephone numbers of dialing plan	
122	Select the function of Relay on CPU	
123	Whether allows printing the DND status	
124	Change the printed time mode of the SMDR	
125	Display who is talking with the called station	
126	Don't have to hang up the phone to dial another station/outgoing number when calling a busy station	
127	Start weekly for alarm	
128	Direct forwarding mode	
129	Whether use LCR function	
130	Whether send the Trunk line physical location with caller-ID for incoming call	
131	Station call access is prior to CO call access	
132	Delay count for External Voice Mail protocol sending code	
133	Printing way of Account Code	
134	Whether control calling time for Manager Password	
135	Max. checking groups of Barring call	

Kind 2 (Station Program)		
Item	Description	Page
00	Station used status	<a href="#">37</a>
01	Set "Do Not Disturb" function	
02	To fix the type of installed interface	
03	Ringing tone when call incoming	
04	Exclusive hold	
05	Catch CO line directly	
06	Group pick-up	
07	Ringing volume increased automatically	
08	Forwarded station on day time when the ringing time-out	
09	Forwarded station on night time when the ringing time-out	<a href="#">38</a>
10	Page making	
11	Page answering	
12	Page starting	
13	Page group	
14	Page volume	
15	Allowed making program	
16	Call forward setting	
17	Voice announcement for alarm call	
18	Auto answer incoming CO by un-ringing station	
19	System speed dialing	
20	Full handsfree	
21	Status of manual full handsfree	<a href="#">39</a>
22	Types of "Do Not Disturb"	
23	Personal password	
24	All call forwarding	
25	Day station group	
26	Night station group	
27	Call forwarding for day busy station	
28	Call forwarding for night busy station	
29	Day group server	
30	Night group server	
31	Day operator	
32	Night operator	
33	CO line group which used for incoming call for day time	
34	CO line group which used for incoming call for night time	
35	Day time incoming call ringing group	
36	Night time incoming call ringing group	
37	Ringing volume	
38	Password lock class	<a href="#">40</a>
39	Day class	
40	Night class	
41	Check-out class for hotel function	

Kind 2 (Station Program)		
Item	Description	Page
42	Day override class	<a href="#">40</a>
43	Night override class	
44	CO line group which used for making outgoing call for day time	
45	CO line group which used for making outgoing call for night time	
46	Flexible function key setup	
47	Day hot line number	
48	Night hot line number	
49	Open Electric Door Lock Control	
50	The 1st alarm setup	
51	Speaking time limit for incoming call	
52	Speaking time limit for outgoing call	
53	DSS-1 physical location	
54	DSS-2 physical location	<a href="#">41</a>
55	DSS-3 physical location	
56	DISA Password	
57	Speaker phone MIC allow to be started by calling party directly	
58	Adjusted volume memory during speaking	
59	Station start dialing	
60	Auto group pick-up	
61	Auto pick-up assigned ringing station	
62	Telephone using kind	
63	Allowed transfer	
64		
65		
66	Check In / Check Out for checking room status	<a href="#">42</a>
67	Whether accept day/night transfer after check-in	
68	The 2nd alarm setup	
69	The 3rd alarm setup	
70	The 4th alarm setup	
71	The 5th alarm setup	
72	The 6th alarm setup	
73	Station hunting sequential number	
74	Individual assign pick up	
75	All area pick up	
76	Busy station call forwarding setup	
77	Call forwarding after ringing time is over	
78	To charge for calling to this station	
79	Data connecting line mode	
80	Outward call restriction	
81	DTMF dialing out	
82	Send digital data from the station	
83	DSS user can auto release & answer the other stations	<a href="#">43</a>
84	Accept "Hold" from the other party on intercom call	

Kind 2 (Station Program)		
Item	Description	Page
85	The respondent mode for the holding time is over	<a href="#">43</a>
86		
87		
88	The respondent mode after camp-on recall time-out	
89		
90	Day time sub-ringing station	
91	Night time sub-ringing station	
92	All stations of the same group ringing at the same time on day time	
93	All stations of the same group ringing at the same time on night time	
94	Call the station controlled by the group	
95	Answer holding station controlled by the group	
96	The group control mode for calling to the station	
97	The paragraph of holding music source	
98	The volume of pressing key tone	
99	Return the station programmed data to "Default"	<a href="#">44</a>
100	Copy all flexible function keys	
101	Copy all programmed data to other station	
102	Volume of background music	
103	Handset receiving volume on CO call	
104	Handsfree receiving volume on CO call	
105	Handset receiving volume on intercom call	
106	Handsfree receiving volume on intercom call	
107	Alarm ringing volume	
108	The ringing back tone for starting all stations of the same group ringing at the same time	
109	Select called party's ringing tone source	
110	When on-hook dialing, call to other stations, waiting time for answer	
111	Play time of called station's ring tone	
112	Call to other stations, ringing source 1	
113	Call to other stations, ringing source 0	
114	Call to other stations, ringing source type	
115	Password lock	<a href="#">45</a>
116	Pick up the holding CO line	
117	Handset MIC transmission volume	
118	Allow to look at the system stored Caller ID number	
119	Allow the station to delete repeated Caller ID number automatically	
120	Allow to turn off the party's SPKR automatically when handsfree speaking is over	
121	Enable to hear DTMF tone on dialing	
122	Warning tone	
123	Send warning tone when calling the busy station	
124	Ringing tone source of transfer	
125	Show Caller ID & trunk line no. during transfer	<a href="#">46</a>
126	LCR/ARS group	

Kind 2 (Station Program)		
Item	Description	Page
127	Disconnecting station port to be indicated on DSS key	<a href="#">46</a>
128	Incoming call mode	
129	On-line recording allowed	
130	Allowed on-line recording by opposite party	
131	Hear DTMF tone when redialing	
132	Invalid dialing duration after the intercom call is hung up	
133	LCR pointer	
134	Allowed call forwarding condition	<a href="#">47</a>
135	LCR display mode	
136	From transfer to conference call	
137	The starting digit of Caller-ID of SLT	
138	The ending digit of Caller-ID of SLT	
139	Allow to send Caller ID number to this SLT station	
140	Allow to send Caller ID number to this SLT station after speaking	
141		
142	Sub-ringing station status	
143	Allow to retrieve the holding internal call by pressing “HOLD” key	
144	Auto-turn off the earphone	
145	Ringing setup on earphone	
146	Station metering setup	
147	Integration method for external voice mail box (inband)	
148	message for missed call on LCD display	
149	A/u law type	
150	PTM/PTP mode	<a href="#">48</a>
151	Whether allows to active the called station’s handsfree intercom function	
152	Whether limited to call the operator or Group service only	
153	Whether allow to setting up the CO forwarding	
154	Allows to view the personal CID number	
155	Whether allows forwarding to VM when active DND function	
156	Push-to-talk button	
157	Whether send the extension describer No. (ISDN CLIP No.)	
158	Whether send the station billing	

Kind 3 (CO/ISDN/VoIP line Program)		
Item	Description	Page
00	CO line used status	<a href="#">49</a>
01	Dialing type	
02	Day outgoing trunk group	
03	Night outgoing trunk group	
04	Ringing station group for the CO day incoming call	
05	Ringing station group for the CO night incoming call	
06		
07		
08	To fix the type of installed interface	
09	Connecting type for the CO line on trunk card	<a href="#">50</a>
10	Day incoming directive	
11	Night incoming directive	
12	Dialing control of outgoing call	
13	While hunting new CO line, hang up the last hunted CO line or not	
14	Digital keyphone transmission controlled by the number of dialing digits	
15	Hold the CO line is accepted or not	
16	The respondent mode for the CO holding time-out	
17	The respondent mode for camp-on time-out	<a href="#">51</a>
18	The respondent mode for transferred station no answer time-out	
19	The respondent mode for transfer recall and no answer	
20	Bill detecting type	
21	Prohibited using time for re-hunting after the CO line disconnected	
22	Day busy call forward	
23	Night busy call forward	
24	Trunk hunting sequential number	
25	To charge for outgoing call	<a href="#">52</a>
26	CO line type	
27	Ringing off time of CO incoming call  on off on off	
28	The port call to the other stations ringing time	
29	The tone source of incoming call ring type 1	
30	The tone source of incoming call ring type 2	
31	Ring type of incoming call	
32	Transmission volume of CO to CO call forwarding	<a href="#">53</a>
33	Transmission volume on speaking	
34	LED light for CO using condition	
35	"Make" time of pulse dialing	
36	"Break" time of pulse dialing	
37	Accept pressing [REDIAL] key to make Redial	
38	Group control	



<b>Kind 3 (CO/ISDN/VoIP line Program)</b>		
<b>Item</b>	<b>Description</b>	<b>Page</b>
39	Hot line telephone number of Day	<a href="#">54</a>
40	Hot line telephone number of Night	
41	Hot line auto dialing	
42		
43		
44	Volume of dialing DTMF	
45	Volume of CO incoming call	
46	Whether to print the status of incoming calls	
47	Auto route selection (ARS) group	
48	Shortest time of incoming call signal	
49	Shortest time from CID signal to incoming call ringing signal	
50	Longest time from CID signal to incoming call ringing signal	
51	Width of Caller ID signal	
52	The warning tone when CO incoming call accessing on busy station	
53	Call time limitation for CO to CO call forwarding	<a href="#">55</a>
54	Outgoing call duration limit	
55	Incoming call duration limit	
56	A/u Law type	
57	ISDN MSN (1) / DDI (1) telephone no.	
58	ISDN MSN (2) / DDI (2) telephone no.	
59	ISDN MSN (3) / DDI (3) telephone no.	
60	ISDN MSN (4) / DDI (4) telephone no.	
61	ISDN MSN (5) / DDI (5) telephone no.	
62	ISDN MSN (6) / DDI (6) telephone no.	
63	ISDN MSN (7) / DDI (7) telephone no.	
64	ISDN MSN (8) / DDI (8) telephone no.	
65	ISDN MSN (1) / DDI (1) incoming direction	<a href="#">56</a>
66	ISDN MSN (2) / DDI (2) incoming direction	
67	ISDN MSN (3) / DDI (3) incoming direction	
68	ISDN MSN (4) / DDI (4) incoming direction	
69	ISDN MSN (5) / DDI (5) incoming direction	
70	ISDN MSN (6) / DDI (6) incoming direction	
71	ISDN MSN (7) / DDI (7) incoming direction	
72	ISDN MSN (8) / DDI (8) incoming direction	
73	Telephone no. programming for call forwarding-CO to CO	
74	Bill account for CO incoming call	
75	Group control for answering the holding call	
76	ISDN MSN 1 group setting	<a href="#">57</a>
77	ISDN MSN 2 group setting	
78	ISDN MSN 3 group setting	
79	ISDN MSN 4 group setting	

Kind 3 (CO/ISDN/VoIP line Program)		
Item	Description	Page
80	ISDN MSN 5 group setting	<a href="#">57</a>
81	ISDN MSN 6 group setting	
82	ISDN MSN 7 group setting	
83	ISDN MSN 8 group setting	
84	The starting digit of Caller-ID	
85	The ending digit of Caller-ID	
86	Time of receiving Caller-ID data after ringing	
87	PTP/PTM mode	
88	OverLap/EN-Block mode	
89	Display calling no. of ISDN trunk on the called party's telephone LCD screen	
90	Display calling no. of ISDN trunk on my telephone's LCD screen	<a href="#">58</a>
91	ISDN CO line numbers	
92	Minimum time to start charging	
93	Allowing the other party's recording	
94	Pointer for starting to execute LCR	
95	Time of waiting for vocal answering	
96	Time of DDI waiting for vocal answering	<a href="#">59</a>
97	Playing time of vocal card	
98	Whether to check the ARS group or not when assign a CO line to dial outgoing telephone no. & execute LCR	
99		
100		
101		
102	Day auto-answering time of F0216 vocal card	
103	Night auto-answering time of F0216 vocal card	
104	Print the dialing condition	
105	Hear the notification announcement from mobile phone when CO call forwarding	
106	Active CALL PARK after pressing "HOLD"	
107		<a href="#">60</a>
108		
109		
110		
111		
112		
113		
114		
115		
116	ISDN number plan mode	
117	ISDN number plan identification	
118	Display the trunk name	
119	Day-time Incoming condition	
120	Night-time Incoming condition	
121	Day Class of VoIP trunk mode	
122	Night Class of VoIP trunk mode	

Kind 3 (CO/ISDN/VoIP line Program)		
Item	Description	Page
123	Whether allow to active VoIP page/broadcast	<a href="#">60</a>

Kind 4 (Doorphone Program)		
Item	Description	Page
00	Doorphone used status	<a href="#">61</a>
01	Dialing type	
02	Day group	
03	Night Group	
04	Day incoming call group	
05	Night incoming call group	
06		
07		
08	Talking time of incoming doorphone call	
09	Talking time of doorphone to outside CO line	<a href="#">62</a>
10	1st doorphone key ringing directive	
11	1st doorphone key ringing station group	
12	2nd doorphone key ringing directive	
13	2nd doorphone key ringing station group	
14	3rd doorphone key ringing directive	
15	3rd doorphone key ringing station group	
16	4th doorphone key ringing directive	
17	4th doorphone key ringing station group	
18	5th doorphone key ringing directive	
19	5th doorphone key ringing station group	
20	6th doorphone key ringing directive	
21	6th doorphone key ringing station group	
22	7th doorphone key ringing directive	
23	7th doorphone key ringing station group	
24	The doorphone hunting sequence	<a href="#">63</a>
25	Interface lock-up	
26	Doorphone transmission volume during talking	
27	The accessing time of doorphone incoming call	
28	Doorphone ringing source play time	
29	Ringing source type 1 of incoming doorphone call	
30	Ringing source type 0 of incoming doorphone call	
31	Ringing type of incoming doorphone call	
32	Volume for CO call forwarding	
33	Receiving volume of doorphone unit	
34	LED display for doorphone	
35	Whether send the warning tone when station busy	
36	Call account for Line XX	
37	LCR/ARS Group	
38	Dialing control of outgoing call	
39	Telephone no. of hot line on day time	
40	Telephone no. of hot line on night time	
41	Allow on-line recording by opposite party	<a href="#">64</a>

Kind 4 (Doorphone Program)		
Item	Description	Page
42	Allow the page output	<a href="#">64</a>
43	Page group	
44	Page volume	
45	DSS-1 physical location	
46	DSS-2 physical location	
47	DSS-3 physical location	
48	Allow to transfer by calling party	
49	Whether print the door phone status	
50	Whether allows "HOLD"	
51	Release the doorphone automatically	

※ All specifications and details are subject to change without notice.