

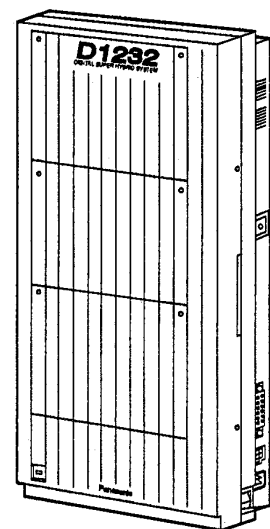
EIA Remote & Diagnosis Program

Panasonic

User **G**uide

**Please read these instructions
before using the EIA software.**

Model
KX-TD1232E/KX-TD816E



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Initial screen

This tool is used for assigning the System data, loading the data, saving the data, and diagnosing the cards of the Digital Super Hybrid System KX-TD1232/KX-TD816.

The following operations are possible.

1. System Data Programming(BATCH)
Edits the System data in the memory of the PC terminal.
2. System Data Programming(INTERACTIVE)
Edits the System data by connecting the PC terminal with the System.
3. Disk File Management
Loads or saves the data in the memory of the PC terminal into a floppy disk.
4. DSHS Management
Loads or saves the data in the memory of the PC terminal into the System.
5. DSHS Connect/Disconnect
Connects the PC terminal with the System by RS-232C or a MODEM.
6. Quit
Return to DOS System.

[General explanation]

This tool is used for programming the system data, saving the system data to FD/HD, loading the system data from the FD/HD, diagnosing the DSHS.

DSHS ; Digital Super Hybrid System

FD ; Floppy disk

HD ; Hard disk

This tool works under following circumstance.

PC ; IBM-PC XT/AT or compatible personal computers

OS ; PC-DOS V3.1 or later version Memory : 640Kbyte

You can confirm the version of this tool by pressing [Alt]+[V].

[File]

Next files will be used or created by this tool.

E1232B.EXE ; Execution File of this tool

In order to execute this file, enter "E1232B" after changing the directory where this file exist.

Enter "E1232B /MONO" for monochrome display.

If your CRT adapter is MDA, enter the command "E1232B /MDA".

XXXXXXXXX.DBF; The system data File

XXXXXXXXX.DBA; ASCII character converted File of the system data screen

You can create this file at "3.Disk File Management" screen.

You can print out this File to usual printer.

E1232COM.DAT; Communication parameter File

Initial screen

P1232.PRT ; When you press[Alt]+[P] , the displayed screen will be saved into the file "P1232.PRT". This file is ASCII character format and you can print out this file from usual printer.

P1232.HLP ; When you press[Alt]+[F4] , all HELP screen will be saved into the file "P1232.HLP". This file is ASCII character format and you can print out this file from usual printer.

[Function]

1.System Data Programming(BATCH)

You can program the system data on PC memory without connecting with the DSHS.

2.System Data Programming(INTERACTIVE)

You can program the system data on DSHS memory through RS-232c or Modem.

3.Disk File Management

You can SAVE the system data from PC memory to FD/HD.

You can LOAD the system data from FD/HD to PC memory.

4.DSHS Management

You can SAVE the system data from DSHS memory to PC memory through RS-232C or MODEM.

You can LOAD the system data from PC memory to DSHS memory through RS-232C or MODEM.

You can diagnose the DSHS through RS-232C or MODEM.

5.DSHS Connect/Disconnect

You can Connect/Disconnect PC with DSHS through RS-232C or MODEM.

[How to use these Function]

Initial Operation

When you start to use this tool, please make the DEFAULT system data on FDD/HDD.

- a. Clear the system data of DSHS by system clear switch of DSHS.
- b. Connect PC and DSHS with RS-232C cable.
- c. Connect PC with DSHS by using Connect function
(5.DSHS Connect/Disconnect)
- d. SAVE the system data of DSHS to PC memory by using SAVE function.
(4.DSHS Management)
- e. SAVE the system data of PC memory to FD/HD by using SAVE function.(Disk File Management)

Now the DEFAULT system data is made up on designated directory of FD/HD.

If possible, you had better to make the DEFAULT data of parallel connection system(double cabinet system).

You can load double cabinet system data to single cabinet system or double cabinet system.

Initial screen

Installation of new DSHS

When you install new DSHS, next operation is recommended.

- a. LOAD the DEFAULT system data from FD/HD to PC memory.
(3.Disk File Management)
- b. Program the system data. (1.System Data Programming(BATCH))
- c. SAVE the new system data from PC memory to FD/HD.
(3.Disk File Management)
- d. Connect PC and DSHS with RS-232C cable.
- e. CONNECT the PC with DSHS through RS-232C.
(5.DSHS Connect/Disconnect)
- f. LOAD the new system data from PC memory to DSHS memory.
(4.DSHS management)

Saving the system data

When you change the system data from PT program mode, please save new system data.

- a. Connect PC and DSHS with RS-232C cable.
- b. CONNECT the PC with DSHS through RS-232C
(5.DSHS Connect/Disconnect)
- c. SAVE the system data from DSHS memory to PC memory.
(4.DSHS Management)
- d. SAVE the system data from PC memory to FD/HD.
(3.Disk File Management)

Loading the system data

When you lost system data on DSHS, LOAD the system data from PC.

- a. Connect PC and DSHS with RS-232C cable.
- b. CONNECT the PC with DSHS through RS-232C
(5.DSHS Connect/Disconnect)
- c. LOAD the system data from FD/HD to PC memory.
(4.Disk File Management)
- d. LOAD the system data from PC memory to DSHS memory.
(3.DSHS Management)

Change the system data directly

- a. Connect PC and DSHS with RS-232C cable.
- b. CONNECT the PC with DSHS through RS-232C or MODEM
(5.DSHS Connect/Disconnect)
- c. Program the system data
(2.System Data Programming(INTERACTIVE))

Initial screen

[Connection of RS-232C]

When you connect the DSHS with PC, use RS-232C cable.

Pin connection is following.

DSHS(25pins)	PC(9pins)
AA FG 1 ---	
BB RXD 3 ---	3 TXD BA
BA TXD 2 ---	2 RXD BB
CB CTS 5 ---	7 RTS CA
CA RTS 4 ---	8 CTS CB
CD DTR 20 ---	6 DSR CC
AB SG 7 ---	5 SG AB
CC DSR 6 ---	4 DTR CD

[Connection of MODEM on PC]

To connect with PC from remote site, use a Hayes compatible modem(AT command) on PC. The modem must be able to use one of the following standards.

CCITT V.21, CCITT V.22, CCITT V.22bis, BELL 103, BELL 212A

This tool will use next AT command.

Z=Reset D=Dial E=Echo back H=Line hook V=Result code

F=full duplex mode B=Communication standard +++=Escape

S=Register assignment

[Operation]

1. Change the screens

1 The initial screen

Press ENTER key to advance to the next screen.

2 The menu screens

Press ENTER key to advance to the next screen.

Press EXIT key to return to the initial screen.

3 The editing screens

Press F5(P-PAGE) key to return to the previous page.

Press F6(N-PAGE) key to advance to the next page.

Press EXIT key to return to the menu screen.

2. Types of fields

There are two types of the fields. You can distinguish the type by a display of the cursor or a message.

1 Selecting type

A parameter is highlighted.

A message "Hit spacebar to select....." appears.

2 Entering directly type

The cursor is displayed as an underline in a field.

A message "Enter....." appears.

Initial screen

3. Move the cursor

You can use TAB key, ENTER key, or cursor keys to move the cursor to the next or the previous items.

TAB key: Moves the cursor to the next item.

SHIFT+TAB: Moves the cursor to the previous item.

ENTER key: Moves the cursor to the next item.

Up key: Moves the cursor to the upper or previous item.

Down key: Moves the cursor to the lower or next item.

Right key: Moves the cursor to one figure right or the next item.

Left key: Moves the cursor to one figure left or the first character of the previous item.

4. Enter, correct and change parameters

1 Selecting type

-Press the spacebar a few times until you find the parameter you need.

-Press BS key, which displays the parameters in the inverted order of the spacebar until you find the parameter you need.

-F4(HELP) provides you the explanation of assigning items and a list of parameters.

2 Entering directly type

-Enter dialling numbers, numerals, alphabets and punctuation marks etc. directly.

-You must enter parameters from a left end.

-Correcting Move the cursor to the parameter you want to correct and enter a new parameter.

-Deleting Press BS key and the cursor moves to one figure left and delete one letter.

Move the cursor to the letter you want to delete, and press DEL key.

Press Ctrl + Home to delete the parameter in which the cursor is placed.

-Inserting Move the cursor to the letter before which you want to insert letters.

Press INS key needed times, and enter a parameter there.

5.Function keys

F2(COPY): Copies parameters by CO lines, extensions, CO line groups or jack numbers.

Move the cursor to source line (or screen).

Push F2(COPY) Button and

Enter the Destination Range No.

F4(HELP): Explains assigning items.

F5(P-PAGE): Returns to the previous page.

F6(N-PAGE): Advances to the next page.

F7(SAVE): Saves the data displayed on the screen.

F7(CONNECT): Connects IBM-PC with DSHS.

F8(EXIT): Returns to the menu screen.

System Data Programming Main Menu

In this program you program all features of DSHS.

1. Line Menu

Assigns features to each CO line or CO Line group. The following features are assignable.

1. CO Line Setting 1

- Telephone Number(ISDN Line Number Assignment)
- Name(CO Line Name Assignment)
- CON(CO Line Connection Assignment)
- TRG(CO Line Group Assignment)
- DIAL(Dial Mode Selection)
- DTMF(DTMF Time Selection)
- PULSE PPS(Pulse Speed Selection)
- Reverse Circuit(Reverse Circuit Assignment)
- DDI Remove/ADD(DDI Remove Digit/Added Number Assignment)

2. CO Line Setting 2

- CPC Detection Mode(CPC Signal Detection Incoming Set)
- CPC Detection Out(CPC Signal Detection Outgoing Set)
- DIL 1:1 Ext No. Day/Night(Direct In Line Extension - Day/Night)
- DDI Service Day/Night(ISDN DDI Service Day/Night Assignment)

3. ISDN Internal/External

- Line Type(ISDN Port Type)
- L1 Mode(ISDN Layer 1 Active Mode)
- L2 Mode(ISDN Data Link Mode)
- Access Mode(ISDN Configuration)
- TEI Assign(ISDN TEI Mode)
- MSN Service(ISDN Extension Multiple Subscriber Number)
- Extension Tone(ISDN Extension Progress Tone)

4. CO Line Groups(TRG)

- Intercept EXT No. Day/Night (Intercept Extension - Day/Night)
- Recall Time(Recall Time)
- Pause Time(Pause Time)
- DSC Time(Disconnect Time)
- PBX Access(Host PBX Access Codes)

5. MSN Setting

- MSN Assign table(Multiple Subscriber Number Set)
- MSN EXT Day/Night(Extension Ringing Assignment - Day/Night)

System Data Programming Main Menu

6. PRI Configuration
 - Available B-channels
 - L1 Mode(ISDN Layer 1 Active Mode)
 - L2 Mode(ISDN Data Link Mode)
 - TEI Assign(ISDN TEI Mode)

7. PRI Setting
 - Telephone Number(Subscriber Number Assignment)
 - NAME(CO Line Name Assignment)
 - CON(CO Line Connection Assignment)
 - TRG(CO Line Group Assignment)
 - Reference CO No

2. Station Menu

Assigns features to each jack or DSS console. The following features are assignable.

1. Station Setting 1

- EXT(Extension Number Set)
- Name(Extension Name Set)
- CON(Extension Connection Assignment)
- XDP(Extra Device Port)
- CHG(Charge Fee Reference Extension Assignment)
- Extension Group(Extension Group Assignment)
- Doorphone Day/Night(Doorphone Ringing Assignment - Day/Night)

2. Station Setting 2

- DDI NO. Trans(ISDN DDI Number/Extension Number Transformation)
- Intercept Day/Night(Extension Intercept Routing - Day/Night)
- Charge Limit(Budget Management)
- LCS Mode(Live Call Screening Recording Mode Assignment)
- CLIP/COLP(CLIP/COLP Number Assignment)

3. Station Setting 3

- COS(Class of Service)
- Data Mode(Data Line Security)
- Mailbox ID(Voice Mail Access Codes)
- Incoming Display(Incoming Call Display)

4. CO line Outgoing

- CO line OG(Outgoing Permitted CO line Assignment - Day/Night)

System Data Programming Main Menu

5. DIL 1:N

- DIL 1:N Day/Night(Direct In Line 1:N Extension and Delayed Ringing
- Day/Night)

6. ISDN Internal 1

- EXT(ISDN Extension Number Set)
- Name(Extension Name Set)
- Charge Limit(Budget Management on ISDN Port)
- DDI NO. Trans(ISDN DDI Number/Extension Number Transformation)
- CLIP/COLP(CLIP/COLP Number Assignment)

7. ISDN Internal 2

- COS(ISDN Class of Service)
- CO line OG(Outgoing Permitted CO line Assignment - Day/Night
for ISDN Extension)

8. Hunting Group Setting 1

- FLT No.(Floating Number Assignment)
- Name(Hunting Group Name Assignment)
- DDI Trans(ISDN DDI Number/ISDN Extension Number Transformation)
- Hunting Type(Station Hunting Type)
- Wait Queue
- Overflow
- Intercept Day/Night

9. Hunting Group Setting 2

- Extensions

10. Flexible CO Keys

- Flexible Keys(Flexible CO Button Assignment)
- ICM Tone

11. Flexible PF Keys

- Flexible Keys(Flexible Button Assignment)

12. DSS

- DSS(DSS Console Assignment)

13. Doorphone

- Forward to CO Day/Night

System Data Programming Main Menu

3. System Menu

Assigns features to DSHS. The following features are assignable.

1. Day/Night

- Mode(Day/Night Service Switching Mode)
- Time(Day/Night Service Starting Time)

2. Class of Service

- TRS-Level Day/Night(Toll Restriction Level - Day/Night)
- Durat Limit(Extension-to-CO Line Call Duration Limit)
- TRNSF to CO(Call Transfer to CO Line)
- Call FWD to CO(Call Forwarding to CO Line)
- DND OVRID(Do Not Disturb Override)
- CFU/CFB/CFNR(CFU/CFB/CFNR Assignment)
- SPD TRS-Level(Toll Restriction Level for System Speed Dialling
- Day/Night)
- Door Opener(Door Opener Access)
- Night Service(Night Service Access)
- DND for DDI(Do Not Disturb for Direct Dialling In Call)
- CLIR(Calling Line Identification Restriction)
- COLR(Connected Line Identification Restriction)
- Account Code(Account Code Entry Mode)

3. Emergency/Quick Dial

- Quick Dial(Quick Dial Number Set)
- Emer. Dial(Emergency Dial Number Set)

4. Speed Dial

- Name(System Speed Dialling Name Set)
- Number(System Speed Dialling Number Set)

5. Absent Message

- Message(Absent Messages)

6. Flexible Numbering

- Dial(Flexible Numbering)

7. Account Code

- Code(Account Codes)

System Data Programming Main Menu

8. Timer

- Hold Recall Time(Hold Recall Time)
- Transfer Recall Time(Transfer Recall Time)
- No Answer Time(Call Forwarding - No Answer Time)
- Intercept Time(Intercept Time)
- Pickup Dial Waiting Time(Pickup Dial Waiting Time)
- CO Call Duration Time(Extension-to-CO Line Call Duration Time)
- 1st Digit Time(First Digit Time)
- Inter Digit Time(Inter Digit Time)
- Automatic Redial Repeat Times(Automatic Redial Repeat Times)
- Automatic Redial Interval Time(Automatic Redial Interval Time)
- CO Dial Starting Time(Dial Start Time)
- Call Duration Count Start Time(Call Duration Count Start Time)
- MW Interval Time(Message Waiting Ring Interval Time)
- Ring Off Detect Time(Ring-Off Detect Time)

9. Voice Mail

- Extension Status(VM Status DTMF Set)
- Voice Mail Command(VM Command DTMF Set)

10. Voice Mail Integration

- VM Port No.(Voice Mail Number Assignment)
- EXT(Voice Mail Extension Number Assignment)
- EXG(Voice Mail Extension Group Assignment)

11. Phantom

- Phantom Extension Number

12. Operator/Manager

- System Password(System Password)
- User Password(User Password)
- Operator-1/-2(Operator Extension Assignment)
- Manager(Manager Extension Assignment)
- Operator Queue/Hurry Up Level(Operator Queue)

System Data Programming Main Menu

13. Miscellaneous

- Expansion Card Type Master/Slave(Expansion Card Type)
- Local Access(Automatic Access CO Line Group Assignment)
- CO Auto-Hold by Push DSS-Key(One-Touch Transfer by DSS Button)
- Adjust Time(Adjust Time)
- EXT Pulse Dial(Pulse Dial Reception Assignment)
- Automatic Door Open(Automatic Door Open Assignment)
- Hotel Application(Hotel Application)
- Charge Display Type(Charge Display Selection)
- Charge ID Code(Charge Fee Reference ID Code Set)
- Charge Margin(Charge Margin and Tax Rate)
- Denomination(Assignment of Denomination)
- Tax(Charge Margin and Tax Rate)

14. Network

- Network Type(Network Type Assignment)

15. FLT.EXT. DDI No.

- Number(Floating DDI Number)

16. System Time

- System Time(Date and Time Set)

17. Version

- Version(ROM Version Display)

18. ISDN Card

4. Toll Restriction Menu

1. TRS Deny

- TRS Deny(Toll Restriction Denied Code Entry)

2. TRS Exception

- TRS Exception(Toll Restriction Exception Excepted Code Entry)

System Data Programming Main Menu

5. LCR

Assigns the data of LCR. The following features are assignable.

1. LCR Setting 1

- Mode(LCR Mode)
- Top of Area Code No.(Area Code Leading Digits Entry)
- BTL Access Code(BTL Access Code)

2. LCR Setting 2

- Itemised Code(Itemised Code Set)

3. LCR Setting 3

- Carrier Code(LCR Carrier Code)
- Modify Command(LCR Carrier Modify Command)
- Trunk Group(LCR CO Line Group Assignment)
- Authorise Code(Authorisation Code Set)

4. LCR L-Digit

- L-Digit(LCR Leading Digit Entry)

5. LCR Time & Fee

- Time(LCR Time and Fee Set)

6. LCR EXCP Digit

- EXCP Digit(LCR Exceptional Code Set)

6. Aux. Ports Menu

Assigns external features connected with DSHS. The following features are assignable.

1. Music & Paging

- Hold Music No.(Music Source Use for Hold Music)
- BGM No.(Music Source Use for BGM)
- Pager Tone(External Pager Confirmation Tone)
- Ex-Pager EXT No.(Floating Number Assignment)
- BGM(External Pager BGM)

System Data Programming Main Menu

2. Administration & SMDR & MODEM

- MODEM EXT No.(Floating Number Assignment)
- MODEM TYPE(MODEM Standard)
- RS-232C Interface(EIA(RS-232C) Parameters)
- SMDR Duration Log Outgoing(SMDR Outgoing Call Log Printout)
- SMDR Duration Log Incoming(SMDR Incoming Call Log Printout)
- Format-Page Length(SMDR Format)
- Format-Skip Perforation(SMDR Format)
- Title Header
- Header Start Line, Column
- Data Start Line, Column

3. DTA

- DTA EXT No.(Floating Number Assignment)

7. Additional Function

Assigns the added features.

Disk File Management

Manages the files in PC DB.

<Operation>

(1) Enter the number of the drive and the name of the directory.

Press ENTER key.

(2) Press F8(EXIT) to return to the initial screen.

(3) File names are displayed when the file extensions of them are ".DBF" and ".DBA".

The files whose file extensions are ".DBE" are the files of database of version 2.1x type.

The files whose file extensions are ".DBD" are the files of database of version 2.0x type.

The files whose file extensions are ".DBA" are the files of ASCII for printing.

Disk File Management

- (4) - To load the files of database into the memory of the PC terminal
 - 1 Select the file by using Up or Down key and press F1(LOAD).
 - 2 When you select the file with ".DBF" and it is not in the memory, a message "Now loading system data" appears and loading starts.
When you select the file with ".DBF" and it is already in the memory, a message "Old system data will be cleared OK ? (Y/N)=>" appears.
Press "Y" or "y" to load or "N" or "n" to cancel.
Press F8(EXIT) to cancel and return to the initial screen.
When you press "Y" or "y", a message "Now loading system data" appears and loading starts.
When it is completed, a message "System data loading completed" appears.
If you select the file with ".DBA", an error message "No Data Base error" appears.

- (5) - To convert database in the memory into the files of ASCII
 - 1 Press F2(ASCII) and a message "Enter File Name[]" appears.
 - 2 Enter the name of the file without the file extension (as it is automatically attached to the name) and press ENTER key.
 - 3 A message "Page Length[]" appears. Enter the length of the page and press ENTER key.
 - 4 A message "Now converting system data" appears and converting starts.
 - 5 When it is completed, a message "System data conversion completed" appears.

- (6) - To delete files
 - 1 Select the file by using Up or Down key, and press F3(DELETE).
 - 2 A message "Are you sure? (Y/N)=>" appears.
Press "Y" or "y" to delete, or "N" or "n" to cancel.
Press F8(EXIT) to cancel and return to the initial screen.

- (7) - To save the database in the memory into files
 - 1 Press F7(SAVE) and a message "Enter File Name[], Comment[]" appears.
 - 2 Enter the name of the file without the file extension (as it is automatically attached to the name) and press ENTER key.
Enter the comment and press ENTER key.
 - 3 A message "Now saving system data" appears and saving starts.
 - 4 When it is completed, a message "System data save completed" appears.

- (8) Press F5(P-PAGE) to return to the previous page.

- (9) Press F6(N-PAGE) to advance to the next page.

Disk File Management

(10) Press F8(EXIT) to return to the initial screen.

<Condition>

(1) When you press F2(ASCII) or F7(SAVE) and there are not any files in PC DB, an error message appears.

DSHS Management Main Menu

When you program the system data in Batch Editing Mode, you must load or save the data to or from DSHS. You can also diagnose cards or lines of DSHS. You can select the operation in this menu screen.

1. System Data Save(DSHS->PC Memory)

Saves the system data from DSHS to PC Memory.

<Condition>

(1) When you select this program, and the data already exist in PC DB file, a message "Old System Data will be cleared. OK?(Y/N)" appears. Press "Y" or "y" to be cleared. Press "N" or "n" or ESC key to cancel. Press F8(EXIT)to cancel and return to the initial screen.

DSHS Management Main Menu

2. System Data Load(PC Memory->DSHS)

Loads the system data from PC Memory to DSHS.

<Condition>

(1) When you select this program but the data do not exist in PC DB file, an error message appears.

3. Test

Diagnoses cards and lines of DSHS. The following tests are available.

1. DTMF G/R Test
2. EXT Card Test
3. CO Card Test
4. DPH, RMT, CONF Test
5. SIC Test
6. PT Test
7. ISDN SO Test

DSHS Connect/Disconnect

When you program the system data in Interactive Editing Mode, you must connect DSHS with a PC terminal. There are two types of connection, RS-232C Connect and MODEM Connect for the KX-TD1232 and one type, RS-232 connect for the KX-TD816

RS-232C Connect

Assigns the communication parameters of RS-232C connection.

<Operation>

- (1) Before assigning the parameters, connect the DSHS with Port 1 or 2 of the PC terminal by the RS-232C cable.
- (2) If you want to change the parameters, use TAB key, the cursor keys or ENTER key to move the cursor.
The defaults of the DSHS are as the following.

 Baud Rate = 9600
 NL Code = CR+LF
 Parity = Mark
 Word Length = 8 bits
 Stop Bit = 1 bit
 Password = 1234
- (3) After editing the data, enter the password and press F7(CONNECT).
- (4) A message "DSHS Connection completed(DSHS ID=> KX-TDxxxx)" appears when the PC terminal is connected with the DSHS.
 DSHS Connecting Status turns into "On-line(RS-232C)".
- (5) Press F8(EXIT) to return to DSHS Connect/Disconnect Main Menu screen.

<Condition>

- (1) If the password is wrong, an error message appears after pressing F7(CONNECT).
 Re-enter the correct one and press F7 again.

- (2) An error message appears when something is wrong with the line.
Check the line and then press F7(CONNECT) again.

Port No. 1 through 8
Baud Rate 150, 300, 600, 1200, 2400, 4800, 9600
NL Code CR+LF or CR
Word Length 7 or 8 bits
Parity None, Mark, Space, Even, Odd
Stop Bit 1 bit or 2 bits
Password 0 through 9 4, 5, 6 or 7 digits

MODEM Connect (For KX-TD1232 Only)

Modem

To connect the DSHS with IBM-PC from a remote site, use a Hayes compatible modem(AT command).

The RS-232C cable is necessary to connect the DSHS with an external modem.

- (1) The modem which is used to connect with DSHS must be able to use one of the following standard;
CCITT V.21, CCITT V.22, CCITT V.22bis, Bell 103, Bell 212A.

- (2) The modem must be also able to use the following AT command to assign the modem from PC terminal.

Z=Reset	F=Full Duplex Mode
D=Dial	N=MNP movement*
E=Echo back	B=Communication standard
H=Line hook	+++=Escape
V=Result code	S=Register assignment
&C=DCD control*	

<Note>

- (1) If the modem cannot use the command mentioned above, it may work improperly.
- (2) The commands marked * are necessary to detect the disconnection from lines automatically.

<Operation>

- (1) Before assigning the parameters,
Install the Modem card(Hayes compatible modem) in the PC terminal,
or connect the external Modem(Hayes compatible modem) with the COM port 1 or 2 of the PC terminal.
Connects the card or the Modem with a CO line after that.
- (2) After selecting "2. MODEM Connect", the screen above appears.

MODEM Connect (For KX-TD1232 Only)

(3) - Automatic call from the Modem

1. Assigns the following parameters.
 - COM Port,
 - Interface,
 - ORG CON Type,
 - Dial Mode,
 - Dial Number,
 - Password
2. After editing the data, press F7(CONNECT).
 - The PC terminal detects the carrier signal from the DSHS and starts communicating with it.

(4) - Manual call from a telephone and access the Modem card.

1. Assigns the following parameters.
 - COM Port,
 - Interface,
 - ORG CON Type,
 - Password
2. Connects the telephone with a CO line and call the DSHS from it.
3. When you hear the carrier signal from the DSHS, press F7(CONNECT) and place the handset.

(5) - Manual call from a telephone and access the external Modem.

1. Assigns the following parameters.
 - COM Port,
 - Interface,
 - ORG CON Type,
 - Password
2. Connects the telephone with the Modem and set the switch of the Modem to the "Telephone" position.
3. Call the DSHS from the telephone.
4. When you hear the carrier signal from the DSHS, press the data communication button of the Modem and then press F7(CONNECT) of the PC terminal and place the handset.

- (6) A message "DSHS Connection completed(DSHS ID=> KX-TDxxxx)" appears when the PC terminal is connected with the DSHS. DSHS Connecting Status turns into "On-line(MODEM)".

MODEM Connect (For KX-TD1232 Only)

- (7) Press F8(EXIT) to return to DSHS Connect/Disconnect Main Menu screen.

<Condition>

- (1) An error message appears when something is wrong with the line.
Check the line and then press F7 again.
- (2) If the password is wrong, an error message appears after pressing F7(CONNECT).
Re-enter the correct one and press F7 again.
- (3) The following parameters are fixed in the default data.
NL Code=CR+LF

<Note>

- (1) If you need the initial data of the Modem, enter the command in MODEM Init field and the data are sent from the Modem.

COM Port No. 1 through 8 1 digit
Interface DSHS:CCITT V.21(300BPS),
DSHS:CCITT V.22(1200BPS),
DSHS:CCITT V.22bis(2400BPS),
DSHS:BELL 103(300BPS),
DSHS:BELL 212A(1200BPS)
ORG CON Type Auto or Manual
NL Code CR+LF or CR
Dial Mode Tone or Pulse
MODEM Init. 0 through 9 A through Z a through z
Maximum 30 digits
Dial Number 0 through 9 * # - P(Pause) T(Tone)
Maximum 30 digits
Password 0 through 9 4, 5, 6 or 7 digits

Programming

CO Line Setting 1

1. Telephone Number(ISDN Line Number Assignment) [419]

Assigns your telephone number of the ISDN network line. Your telephone number is informed to the called party with the CLIP (Calling Line Information Presentation) feature offered by the ISDN network service.

0 through 9 Maximum 16 digits

2. Name(CO Line Name Assignment) [421]

Used to set names to CO lines. The pre-set name is shown on a display proprietary telephone when an incoming CO call is placed to the telephone.

0 through 9 A through Z a through z Maximum
* # ! ? space . , ' : ; / + - = < > \$ % & @ () 10 characters

3. CON(CO Line Connection Assignment) [400]

Assigns connecting states of CO lines.

Y : Connect N : Disconnect

4. TRG(CO Line Group Assignment) [401]

Assigns individual CO lines to one CO line group.

1 through 8

5. DIAL(Dial Mode Selection) [402]

Assigns the dial mode to each CO line.

D : DTMF, P : Pulse Dial, C : Call Block

6. DTMF(DTMF Time) [404]

Sets the DTMF time of CO lines.

It is available when the dial mode is assigned DTMF.

96 or 160

7. PULSE PPS(Pulse Speed Selection) [403]

Sets the pulse speed of CO lines.

It is available when the dial mode is assigned PULSE.

10 or 20

8. Reverse Circuit(Reverse Circuit Assignment) [416]

Enables or disable to detect Reverse Circuit

Reverse(detection) or Regular(no detection)

9. DDI Remove/ADD(DDI Remove Digit/Added Number Assignment) [111]

Assigns the removed digits and added number to a subscriber's number and the DDI number sent from the network to make the extension which receives call per CO Line.

Removed digit: 0 through 16(0=no deleting)

Added number: 4 digits(max.)

If you want to use this data, you must be assigned "0" on the program [990] System Additional Information, Field(46).

CO Line Setting 2

1. CPC Detection Mode(CPC Signal Detection Incoming Set) [405]

Assigns the expected minimum duration of the CPC Signal on incoming CO calls. If this is programmed, the system disconnects the line when the CPC Signal is detected.

00 or 02 through 75

2. CPC Detection Out(CPC Signal Detection Outgoing Set) [415]

Enables or disables CPC Signal Detection during the time between the originated CO call and the established CO call. If this is enabled, the system disconnects the line with the time set in "CPC Signal Detection Incoming Set" when the CPC Signal is detected.

Disable or Enable

CO Line Setting 2

3. DIL 1:1 EXT No. Day/Night(Direct In Line Extension - Day/Night) [407,408]

Assigns an extension for a DIL 1:1 destination during day time or night time.

Disable or EXT[] (After selecting EXT[]) 0 through 9

4. DDI Service Day/Night(Direct Dialling In) [420,429]

Assign the contract status of the Direct Dialling In(DDI) Service on CO line basis. This setting is also used for Calling Line Identification Presentation (CLIP) and Connected line Identification Presentation (COLP).

Disable or Enable

ISDN Internal/External

1. Line Type(ISDN Port Type) [422]

Assigns the type of each port either CO line or extension line on ISDN port basis.

CO or Extension

2. L1 Mode(ISDN Layer 1 Active Mode) [423]

Assigns the active mode of Layer 1 on ISDN port basis.

Permanent or Call

3. L2 Mode(ISDN Data Link Mode) [425]

Assigns the data link mode on ISDN port basis.

Permanent or Call

4. Access Mode(ISDN Configuration) [424]

Assigns the configuration on ISDN port basis.

P-P or P-MP

5. TEI Assign(ISDN TEI Mode) [426]

Assigns the Terminal Endpoint Identifier(TEI) mode on ISDN port basis.
Automatic or Fix []

6. MSN Service(ISDN Extension Multiple Subscriber Number) [427]

Selects whether the Multiple Subscriber Number is allocated to each terminal equipment on ISDN S0 bus or not on ISDN port basis.
Disable or Enable

7. Extension Tone(ISDN Extension Progress Tone) [428]

Enables or disables to send the progress tone to ISDN extension on ISDN port basis.
Disable or Enable

CO Line Groups (TRG)

1. Intercept EXT No. Day/Night(Intercept Extension - Day/Night) [409,410]

Assigns extensions for destinations of intercept routing during day time or night time.
Disable or EXT[] (After selecting EXT[]) 0 through 9

2. Recall Time(Recall Time) [413]

Sets the length of the Flash Time.
No, 80, 96, 112, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1100 or 1200

3. Pause Time(Pause Time) [412]

Sets the length of the Pause Time.
1.5, 2.5, 3.5, 4.5, 5.5 or 6.5

4. DSC Time (Disconnect Time) [414]

Sets the length of the disconnecting time.
0.5, 2.0 or 4.0

5. PBX Access(Host PBX Access Codes) [411]

Assigns the Host PBX access codes.

1 through 9 *(a wild card character)

MSN Setting

1. MSN Assign table(Multiple Subscriber Number Set) [437]

Assigns a maximum ten multiple subscriber number (MSN) on ISDN S0 Port basis.

0 through 9 16 digits(max.)

2. MSN EXT Day/Night(Multiple Subscriber Extension Number Assign) [438,439]

Determines the extension which receives a call on multiple subscriber number(MSN)basis of the ISDN S0 port in both day and night mode.

Disable, Operator or EXT[]

(After selecting EXT[]) 0 through 9

When "Enable" is chosen in the Program [420] "Direct Dialling In - Day", or [429] "Direct Dialling In - Night", this program becomes effective.

PRI Configuration

1. Available B-channels [450]

Assigns the number of B channel which are actually used out of 30 channels of PRI line and the installation spot of the CO line card (KX-TD181) or BRI card (KX-TD281) or the CO line unit (KX-TD180) or BRI unit (KX-TD280). The ISDN layer 1 active mode, ISDN data link mode and ISDN TEI mode can be also assigned.

- B channel number and the installation spot:

"30	Y	-	N	N"
"30	N	-	Y	N"
"30	N	-	N	Y"
"26	Y	-	N	Y"
"26	N	-	Y	Y"
"22	Y	-	Y	N"
"18	Y	-	Y	Y"
" 0	Y	Y	Y	Y"

(Y=the card can be installed, -=this area is for KX-TD290 only, N=the card is not installed.)

ex.: "30 Y - N N"

| | | | |

| | | | +--- Status of the expansion area of the slave system.

| | | +--- Status of the basic area of the slave system.

| | +--- Status of the expansion area of the master system.

| +--- Status of the basic area of the master system.

+--- the numbers of available B channel

2. L1 Mode(ISDN Layer 1 Active Mode) [450]

Assign the active mode of Layer 1(L1).

Permanent or Call

3. L2 Mode(ISDN Data Link Mode) [450]

Assign the data link mode(L2).

Permanent or Call

4. TEI Assign(ISDN TEI Mode) [450]

Assigns the Terminal Endpoint Identifier(TEI) mode.

Fix 0 through 63 or Automatic

PRI Setting

1. Telephone Number(Subscriber Number Assignment) [419]

Assigns the subscriber number which is assigned to a CO line to a central office for Direct Dialling In, Calling Line Identification Presentation or Connected Line Identification Presentation.

Example: Panasonic UK 01344853506 => Program "01344853"

0 through 9

Maximum 16 digits

2. NAME(CO Line Name Assignment) [421]

Assigns names of company or custom to each CO line so that the operator or the extension user can find the destination to which the caller tries to reach, before answering.

0 through 9, A through Z, a through z.

* # ! ? space . , ' : ; / + - = < > \$ % & @ ()

Maximum 10 character

3. CON(CO Line Connection Assignment) [400]

Assigns connecting states of CO lines.

Y : Connect N : Disconnect

4. TRG(CO Line Group Assignment) [401]

Assigns individual CO lines to one CO line group.

1 through 8

PRI Setting

5. Reference CO No [451]

Assigns the CO line number whose system data each PRI line uses except the following programs:

- [401] CO Line Group Assignment
- [419] Subscribers Number Assignment
- [421] CO Line Name Assignment

To assign this program, the following program data become available for PRI line CO 20 through 54.

- [407]-[408] DIL 1:1 Extension - Day/Night
- [418] External Ringer Assignment
- [420] Direct Dialling In - Day
- [429] Direct Dialling In - Night
- [603]-[604] DIL 1:N extension and Delayed ringing - Day/Night
- [605]-[606] Outgoing Permitted CO Line Assignment - Day/Night
- [615]-[616] Outgoing Permitted CO Line Assignment - Day Night
for ISDN Extension

01 through 24

Station Setting 1

1. EXT(Extension Number Set) [003]

Assigns an extension number to each extension.
0 through 9

2. Name(Extension Name Set) [004]

Assigns a user's name to each extension.
0 through 9, A through Z, a through z.
* # ! ? space . , ' : ; / + - = < > \$ % & @ ()
Maximum 10 character

3. CON(Extension Connection Assignment) [611]

Assigns whether the extension can perform all accesses or not.
Y(Connect) or N(No Connect)

4. XDP(Extra Device Port) [600]

eXtra Device Port(XDP) allows a single line telephone(SLT) to be connected to the same jack as a digital proprietary telephone(DPT). This program assigns which jacks are XDP. The SLT and DPT of the programmed jack work as independent extensions.
Y : Enable or N : Disable

5. CHG(Charge Fee Reference Extension Assignment) [118]

Assigns extensions that can refer to charges.
Y : Enable or N : Disable

6. EXG(Extension Group Assignment) [602]

Assigns each extension to an extension group. Extension groups are used for Group Call Pickup and Paging - Group.
Y(belong) or N(not belong)

7. Doorphone Day/Night(Doorphone Ringing Assignment - Day/Night) [607,608]

Assigns extensions to answer a doorphone during day mode or night mode.
Y : Enable or N : Disable

Station Setting 2

1. DDI No. Trans(ISDN DDI Number/Extension Number Transformation) [618]

Used to convert a DDI number to an extension number in order to put an incoming DDI call to a specific extension.

0 through 9(Maximum 6 digits)/Blank(no number)

If you want to use this data, you must be assigned "0" on the program [990] System Additional Information, Field(45).

2. Intercept Day/Night(Extension Intercept Routing - Day/Night) [620,621]

Sets the destination of Intercept Routing to each jack in both day and night mode.

Disable or EXT[] (After selecting EXT[]) 0 through 9

3. Charge Limit(Budget Management) [010]

Assigns the charge limitation of a call on the extension basis.

0 through 9999

4. LCS Mode(Live Call Screening Recording Mode Assignment) [617]

Assigns whether to close the mailbox or to keep recording the conversation after the call intercepted.

Stop Rec or Keep Rec

5. CLIP/COLP(CLIP/COLP Number Assignment) [623]

Selects the type of an additional number to CLIP and COLP information when making and answering a call thorough ISDN line.

DDI or [](0 through 9 maximum 6 digits)

Station Setting 3

1. COS(Class of Service Primary/Secondary) [601]

Programs each extension for a Class of Service(COS). The COS determines the call handling abilities of each extension. A primary and a secondary COS numbers can be assigned per extension.

1 through 8

2. Data Mode(Data Line Security) [612]

Sets or cancels the Data Line Security mode on an extension basis.

On : Mode On or Off : Mode Off

3. Mailbox ID(Voice Mail Access Codes) [609]

Assigns the access codes for Voice-Mail device.

0 through 9 * # P or p(Pause)

4. Incoming Display (Incoming Call Display) [622]

Allows you to select between three display types when an incoming call is received.

Caller, CO Line or DDI

5. SXDP Assign (PS SXDP Assign) [654]

Disable or enables the Super EXtra Device Port (SXDP) feature

for wired extensions.

Enable or Disable

CO line Outgoing

1. CO line OG(Outgoing Permitted CO Line Assignment - Day/Night) [605,606]

Assigns CO line groups with which extension users can make outside calls in day mode or in night mode.

Y : Enable N : Disable

DIL 1:N

1. DIL 1:N Day/Night(Direct In Line 1:N Extension and Delayed Ringing - Day/Night) [603,604]

Assigns the state of DIL 1:N to each extension in day mode or in night mode.

D : Disable, 0 : Immediate, 4 : 4 Rings, 6 : 6 Rings,
8 : 8 Rings, N : No Rings

ISDN Internal 1

1. EXT(ISDN Extension Number Set) [012]

Assigns an extension number to each port which is connected to the ISDN S0 unit or card.

Disable or []

2. Name(ISDN Extension Name Set) [013]

Assigns names to ISDN extension numbers programmed in program "ISDN Extension Number Set."

0 through 9, A through Z, a through z.

* # ! ? space . , ' : ; / + - = < > \$ % & @ ()

Maximum 10 character

3. Charge Limit(Budget Management on ISDN Port) [014]

Assigns the charge limitation of a call on the ISDN port basis.

0 through 9999

4. DDI NO. Trans(ISDN DDI Number/ISDN Extension Number Transformation) [619]

Used to convert a DDI number to an ISDN extension number in order to put an incoming DDI call to a specific extension.

0 through 9(Maximum 6 digits)/Blank(no number)

If you want to use this data, you must be assigned "0" on the program [990] System Additional Information, Field(45).

5. CLIP/COLP(CLIP/COLP Number for ISDN Extension Assignment) [624]

Selects the type of an additional number to CLIP and COLP information when making and answering a call thorough ISDN line.

DDI or [](0 through 9 maximum 6 digits)

ISDN Internal 2

1. COS(ISDN Class of Service Primary/Secondary) [613]

Programs each ISDN port for a Class of Service(COS). The COS determines the call handling abilities of each port. A primary and a secondary COS numbers can be assigned per port.

1 through 8

2. CO line OG(Outgoing Permitted CO line Assignment - Day/Night for ISDN Extension) [615,616]

Determines the CO lines which can be accessed by an ISDN extension in both day and night modes. The extension users can make outgoing outside calls using the assigned CO lines.

Y : Enable N : Disable

Hunting Group 1

1. FLT No.(Floating Number Assignment) [813]

Assigns the Floating numbers for Hunting Groups.

These numbers can be used the same way extension numbers are used for station access.

2 through 4 digits or Blank(No hunting)

2. Name(Hunting Group Name Assignment) [132]

Assigns a hunting group name to the hunting group. When an incoming outside call is received, the assigned name and the extension number of the group are displayed on LCD.

10 characters(max.)

3. DDI Trans(ISDN DDI Number/ISDN Extension Number Transformation) [112]

Used to convert a DDI number to an ISDN extension number in order to put an incoming DDI call to a specific extension.

0 through 9(Maximum 6 digits)/Blank(no number)

4. Call Hunting(Station Hunting Type) [106]

Assigns the Station Hunting type on an extension group basis.

Disable, Circular, VM, AA, UCD, Ring or No Reply

5. Wait Queue/Overflow [133]

Assigns the limited number of a queue and the management of an incoming call when the queues is full. There are three types of management mentioned below:

Overflow: When the queue is full, a new incoming call is (OVF) transferred to the destination of Intercept for the group.

If the number of the queue is assigned "0" and all extensions are busy or log-out, the call is transferred to the destination of Intercept for the group

Busy Tone: This assignment is available only when the call is made (BSY) through ISDN line or an intercom call. If the queue is full, a busy tone is sent to a caller. If the number of the queue is assigned "0" and all extensions are busy or log-out, a busy tone is sent to caller.

No: As the queue is treated as infinite, overflow will no occur and a busy tone will not be sent. The call will be kept waiting until any extension in the group become idle(or to log in).

IRNA starts.

Wait Queue : 0 through 8, 1 digit

Overflow : OVF, BSY, no

6. Intercept Day/Night(Hunting Intercept) [134,135]

Sets destination of Intercept in both day and night modes for each hunting group.

Disable or EXT[] (After selecting EXT[]) 0 through 9

Hunting Group 2

1. Extension(Hunting Group Assignment) [131]

Assigns the extension numbers which belong to each hunting group. An incoming a call is hunted in the order of registration except the Ring hunting.

2 through 4 digits or Blank(No hunting)

Flexible CO Keys

1. Flexible Keys(Flexible CO Button Assignment) [005]

Assigns the use of the flexible CO buttons of the extension telephones within the system.

01 through 64 (for KX-TD1232) 01 through 16 (for KX-TD816)

Button Code	Parameter
S-CO (Single-CO)	: 01 through 54(CO line number)(for KX-TD1232) : 01 through 16(CO line number)(for KX-TD816)
DSS	: 2 through 4 digits (Extension number)
One-Touch	: 16 digits max. (Telephone number)
MSG WAIT (Message Waiting)	: None
FWD/DND	: None
SAVE	: None
ACCOUNT	: None
G-CO (Group-CO)	: 1 through 8 (CO line group number)
L-CO (Loop-CO)	: None
CONF (Conference)	: None
VTR (Voice Mail Transfer)	: 2 through 4 digits (Extension number)
TERMINATE	: None
LOGIN/LOGOUT	: None
2WAY-REC	: 2 through 4 digits (Extension number)
2WAY-TRNS	: 2 through 4 digits (Extension number)
LCS (Live Call Screening)	: None
LCS CANCEL	: None
ALERT	: None
TONE (Ringer Frequency)	: 1 through 8 (ring tone type number)
PHANTOM	: 2 through 4 digits (Extension number)
NIGHT	: None
{ }	(One-Touch Dialling with Auto Hold) : 16 digits max. (Telephone number)

2. ICM (Ringing Tone Selection for the Intercom Button)

Allows the digital proprietary telephone user to select the desired ringer frequency for the intercom button. This provides discrimination of incoming intercom calls.

1 through 8

Flexible PF Keys

1. Flexible Keys(Flexible Button Assignment) [005]

Assigns the use of the flexible buttons of the extension telephones within the system.

01 through 64 (for KX-TD1232) 01 through 16 (for KX-TD816)

Button Code	Parameter
[](One-Touch)	: 16 digits max. (Telephone number)
FWD/DND	: None
SAVE	: None
ACCOUNT	: None
CONF(Conference)	: None
VTR(Voice Mail Transfer)	: 2 through 4 digits (Extension number)
TERMINATE	: None
{ }(One-Touch Dialling with Auto Hold)	: 16 digits max. (Telephone number)

2. Name

Assigns names

0 through 9 A through Z a through z Maximum
* # ! ? space . , ' : ; / + - = < > \$ % & @ () 10 characters

3. SPD(Station Speed Dialling) & P-DL(Pickup Dialling)

16 digits max. (Telephone number)

DSS

1. DSS(DSS Console Assignment) [007]

Assigns the feature of DSS buttons of DSS consoles.

1 through 16 (for KX-TD1232) 1 through 4 (for KX-TD816)

Button Code	Parameter
DSS	: 2 through 4 digits (Extension number)
[](One-Touch)	: 16 digits max. (Telephone number)
MSG WAIT(Message Waiting)	: None (for DSS key only)
FWD/DND	: None
SAVE	: None
ACCOUNT	: None
CONF(Conference)	: None
VTR(Voice Mail Transfer)	: 2 through 4 digits (Extension number)
TERMINATE	: None
2WAY-REC	: 2 through 4 digits (Extension number)
2WAY-TRNS	: 2 through 4 digits (Extension number)
LCS(Live Call Screening)	: None
LCS CANCEL	: None
PHANTOM	: 2 through 4 digits (Extension number)
NIGHT	: None
{ }(One-Touch Dialling with Auto Hold)	: 16 digits max. (Telephone number)

Doorphone

1. Forward to CO Day/Night(Doorphone Call Forwarding - Day/Night) [625,626]

Assigns a phone number to which a doorphone call is forwarded.
This feature is one of an ISDN service.

Disable or [] (Maximum 16 digits)

PS Setting 1

1. EXT(PS Extension Number Set) [671]

Assigns an extension number to each PS. After this program, register the extension number assigned PS to the system in program

[650] "PS Registration", or the extension number cannot be used.
2 through 4 digits

2. Name(PS Extension Name Set) [653]

Assigns names to the PS extension numbers programmed in program [671] "PS Extension Number Set".

0 through 9, A through Z, a through z.
* # ! ? space . , ' : ; / + - = < > \$ % & @ ()
Maximum 10 character

3. CON(PS Extension Connection Assignment) [667]

Assigns whether the PS can perform all accesses or not.
Y : Connect or N : No Connect

4. CHG(PS Charge Verification Assignment) [656]

Assigns the PS which is allowed to refer or clear for the charge information on the extension, CO line, department code, account code, and to total.

Y : Enable or N : Disable

5. EXG(PS Extension Group Assignment) [658]

Assigns each PS to an extension group. Extension groups are used for Group Call Pickup, Station Hunting and Uniform Call Distribution.
Y(belong) or N(not belong)

6. Doorphone Day/Night(PS Doorphone Ringing Assignment - Day/Night)[663,664]

These program assign which PSs will ring when a doorphone call is received during the day and night modes. Programmed PSs are also allowed to open the Door.

Y : Enable or N : Disable

PS Setting 2

1. DDI NO. Trans(ISDN DDI Number/PS Extension Number Transformation) [670]

Used to convert a DDI number to a PS extension number in order to put an incoming DDI call to a specific extension.

0 through 9(Maximum 6 digits)/Blank(no number)

If you want to use this data, you must be assigned "0" on the program [990] System Additional Information, Field(45).

2. Intercept Day/Night(PS Extension Intercept Routing - Day/Night) [674,675]

Sets the destination of Intercept Routing to each jack in both day and night mode.

Disable or EXT[] (After selecting EXT[]) 0 through 9

3. Charge Limit(PS Budget Management) [655]

Assigns the change limitation of a call on the PS basis.

0 through 9 (Maximum 8 digits)

4. CLIP/COLP(CLIP/COLP Number Assignment) [673]

Selects the type of an additional number to CLIP and COLP information when making and answering a call through ISDN line.

DDI or [](0 through 9 maximum 6 digits)

PS Setting 3

1. COS(PS Class of Service Primary/Secondary) [657]

Programs each PS for a Class of Service(COS). The COS determines the call handling abilities of each PS. A primary and a secondary COS numbers can be assigned per PS.

1 through 8

2. Data Mode(PS Data Line Security) [668]

Sets or cancels the Data Line Security mode on an PS basis.

On : Mode On or Off : Mode Off

3. Mailbox ID(PS Voice Mail Access Codes) [665]

Assigns a mailbox number for each PS only if program [990] "System Additional Information, Field(18)" is set to "free".

0 through 9 * # P or p(Pause)

PS Setting 4

1. CO line OG(PS Outgoing Permitted CO Line Assignment - Day/Night)[661,662]

Determines which CO lines can be accessed by a PS in both the day and night modes. PS users can make outgoing outside calls using the assigned CO lines.

Y : Enable N : Disable

PS Setting 5

1. DIL 1:N Day/Night(PS DIL 1:N Extension - Day/Night) [659,660]

A DIL 1:N line can be assigned to call more than one extension. All incoming calls from the programmed CO lines are directed to

the specified PSs. These programs assign the PSs for each CO line in both the day and night modes.

D : Disable, 0 : Immediate

PS Setting 6

1. PASSWORD(PS Registration Password Set) [672]

Assigns a registration password, which is used for registration (program [650] "PS Registration"), to each PS.

0 through 9 4digits

2. SXDP(Super eXtra Device Port)

The Super eXtra Device Port(SXDP) allows a proprietary portable station to be used in parallel with a proprietary wired(PT) or single telephone(SLT). When in the SXDP mode, both telephones can be used with the same extension number.

PS Flexible Keys

1. Flexible CO Keys(PS Flexible CO Button Assignment) [020]

Used to determine the use of the flexible CO buttons on PSs from a centralized telephone.

2. Flexible SPD Keys(PS Flexible SPD Button Assignment)

16 digits max. (Telephone number)

3. Name(PS Flexible SPD Button Name Assignment)

Assigns SPD names.

0 through 9, A through Z, a through z.

* # ! ? space . , ' : ; / + - = < > \$ % & @ ()

Maximum 10 character

PS System

1. Air Type

DECT, PHS and NONE

2. PBX ID(Radio System ID Set) [681]

Assigns a radio system ID which is required to use the wireless system. The radio system ID must be the last eight digits of the serial number of the master system.

0 through 9 8 digits (All "FF" is Not stored)

PS Registration

1. REG(PS Registration) [650]

Assigns an registration number to each PS. Steps 1 through 4 and 20 through 22 must be operated with your display PT, and steps 5 through 19 with the PS whose registration number is to be set. Before this program, PS extension number should be assigned first in program [671] "PS Extension Number Set".

PS Termination

1. TERM(PS Termination) [651]

Deletes a stored PS so that it cannot be used in the system.

CS Information

[Operating procedure]

1. By pressing [F3](READ) key, read and display the data only once.
2. By pressing [F4](HELP) key, display HELP screen.
3. By pressing [F6](CONT) key, read and display the data

continuously for a certain period of time.

4. By pressing [F4](HELP) key, return to Station Menu.

[Screen description]

1. CS NO. --- CS number(01-08:Master,09-16:Slave)

2. CS ID --- CS-ID

3. L.info --- Large information

display --- content

"OUS" --- Out Service

"INIT" --- Initialize

"INS" --- In Service

"TEST" --- TEST

"FAULT" --- FAULT

4. S.info --- Small information

display --- content

"FAULT" --- Fault

"OUS" --- Out Service

"INIWAY"--- Waiting for CS Initialization completed status

"INIT" --- Waiting for Initialization completed status

"DLYWAY"--- Waiting for CS superframe synchronization
established status

"DELEY" --- CS super frame synchronization is now being
established status

"DGWAY" --- Waiting for CS self-diagnosis start status

"DIAG" --- Waiting for CS self-diagnosis completed status

"DWNLD" --- PS information downloading status

"INSWAY"--- Waiting for CS in service status

"TSTWAY"--- Waiting for CS Test Mode status

"ACSS" --- PS registering status

"ACSDW" --- PS registering, PS downloading information

"ACSEND"--- Waiting for PS registration completed

"CSTST" --- CS in Test Mode

"INS" --- CS In Service

"TEST" --- PBX,CS in Test Mode

5. Ver. --- ROM version

6. Diag Code --- CS diagnosis result

0x00: normal

0x0a: BBIC diagnoses abnormal

0x02: EEPROM diagnoses abnormal

7. Obst Code --- Fault details(description) code

0x01: when CS is disconnected

0x02: when the call monitoring timer becomes time-out

0x03: when the other timers becomes time-out or call release is notified

Day/Night

1. Mode(Day/Night Service Switching Mode) [101]

Assigns the method to alternate with the day and night modes.

Manual or Auto

2. Time(Day/Night Service Starting Time) [102]

Sets the starting time when you select the automatic switching mode for day/night service.

Disable or [] AM / PM

Class of Service

1. TRS-Level Day/Night(Toll Restriction Level - Day/Night) [500,501]

Assigns the level of Toll Restriction during day or night mode.
1 through 8

2. Durait Limit(Extension-to-CO Line Call Duration Limit) [502]

Assigns the duration time of an originated outside call to be limited or not.
Disable or Enable

3. TRNSF to CO(Call Transfer to CO Line) [503]

Assigns transferring to CO to be made or not.
Disable or Enable

4. CALL FWD to CO(Call Forwarding to CO Line) [504]

Assigns the Call Forwarding to outside to be made or not.
Disable or Enable

5. DND OVRID(Do Not Disturb Override) [507]

Assigns the Do Not Disturb Service to be valid or not.
Disable or Enable

6. CFU/CFB/CFNR(CFU/CFB/CFNR Assignment) [518]

This program determines which Classes of Service(COS) allows to perform CFU,CFB and CFNR features.
Disable or Enable

7. OHCA(Off-Hook Call Announcement) [519]

Enables or Disables to perform the Off-Hook Call Announcement(OHCA) and Wisper OHCA on Class of Service(COS) basis.

Disable or Enable

Class of Service

8. SPD TRS-Level Day/Night(Toll Restriction Level for System Speed Dialling - Day/Night) [509,510]

These programs set the toll restriction value used in System Speed Dialling for each Class of Service(COS) in day or night mode. When the user makes a call with System Speed Dialling, the System will check the phone number with this level.

1 through 8

9. Door Opener(Door Opener Access) [511]

Enables or disables to unlock the door opener by feature number on a Class of Service(COS) basis.

Disable or Enable

10. Night Service(Night Service Access) [513]

Enables or disables to switch the Day/Night service on a Class of Service(COS) basis.

Disable or Enable

11. DND for DDI(Do Not Disturb for Direct Dialling In Call) [514]

Enables or disables to reject Direct Dialling In call on a Class of Service(COS) basis.

Disable or Enable

12. CLIR(Calling Line Identification Restriction) [516]

Enables or disables the Calling Line Identification Restriction(CLIR) Service on a Class of Service(COS) basis.

Disable or Enable

13. COLR(Connected Line Identification Restriction) [517]

Enables or disables the Connected Line Identification Restriction(COLR) Service.

Disable or Enable

14. Account Code(Account Code Entry Mode) [508]

Assigns the mode of entering the account codes.

Option, Verify-All, Verify-Toll

Emergency/Quick Dial

1. Emer. Dial(Emergency Dial Set) [311]

Stores up to 10 emergency call numbers. Emergency numbers are not subject to toll restriction.

0 through 9 Maximum 3 digits

Speed Dial

1. Name(System Speed Dialling Name Set) [002]

Assigns names of destinations stored as the speed dialling numbers.

0 through 9 A through Z a through z Maximum
* # ! ? space . , ' : ; / + - = < > \$ % & @ () 10 characters

2. Number(System Speed Dialling Number Set) [001]

Assigns telephone numbers for system speed dialling.

0 through 9 * # - P or p(Pause) Maximum
F or f(FLASH) S or s (SECRET) 24 digits

Absent Message

1. Message(Absent Messages) [008]

Assigns the Absent Messages.

0 through 9 A through Z a through z Maximum
* # ! ? space . , ' : ; / + - = < > \$ % & @ () 16 characters

Flexible Numbering

1. Dial(Flexible Numbering) [100]

Assigns dialling numbers of each feature.

0 through 9 * #

Account Code

1. Account Code(Account Codes) [105]

Assigns the Account Codes for Verified mode.
0 through 9 Maximum 5 digits

Timer

1. Hold Recall Time(Hold Recall Time) [200]

Sets the Hold Recall Time.
0 through 9

2. Transfer Recall Time(Transfer Recall Time) [201]

Sets the Transfer Recall Time.
0 through 9

3. No Answer Time(Call Forwarding No Answer Time) [202]

Sets the Call Forwarding No Answer Time.
0 through 9

4. Intercept Time(Intercept Time) [203]

Sets the time out for the Intercept Routing No Answer.
0 through 9

5. Pickup Dial Waiting Time(Pickup Dial Waiting Time) [204]

Sets the waiting time for Pickup Dial.
0 through 9

6. CO Call Duration Time(Extension-to-CO Line Call Duration Time) [205]

Sets the duration time allowed for a conversation with an outside party.
0 through 9

Timer

7. 1st Digit Time(First Digit Time) [207]

Sets the maximum time allowed between the start of CO dial tone and the first digit dialed on an outgoing CO call. If an extension user fails to dial any digits this during this time, the DTMF receiver is released.

0 through 9

8. Inter Digit Time(Inter Digit Time) [208]

Assigns the maximum time allowed between digits on an outgoing toll call. If an extension user fails to dial any digits during this time, the DTMF receiver is released. This timer applies until the Toll Restriction check is completed.

0 through 9

9. Automatic Redial Repeat Times(Automatic Redial Repeat Times) [209]

Sets the repeated time of Automatic Redial.

0 through 9

10. Automatic Redial Interval Time(Automatic Redial Interval Time) [210]

Sets the interval time for Automatic Redial.

0 through 9

11. CO Dial Starting Time(Dial Start Time) [211]

Sets the time taken for the system to start dialling after an outside line is seized.

0 through 9

12. Call Duration Count Start Time(Call Duration Count Start Time) [212]

Sets the number of seconds the system waits between the end of dialling and the start of the SMDR timer for outgoing toll calls. When the system has sent out all the digits to the central office and this timer expires, the system starts counting the call. A display telephone shows the elapsed time of the call. The starting time and the total duration of a call are recorded in the SMDR record.

0 through 9

Timer

13. MW Interval Time(Message Waiting Ring Interval Time) [214]

Set the interval time of Message Waiting ring for a single line telephone.

0 through 9

14. Ring Off Detect Time(Ring-Off Detection Time) [215]

Sets the ring-off time so that the system can detect that the central office stops ringing.

06 or 11

15. CO-CO Call Duration Time(CO-to-CO Call Duration Time)

Assigns the duration time allowed for a conversation between two outside parties.

0 through 9

Voice Mail

1. Extension Status(VM Status DTMF Set) [113]

Sets the DTMF signals transmitted to your Voice Processing System(VPS) to inform the VPS of the VPS ports states quickly: The following signals are sent to the VPS with the assigned DTMF signals:

- RBT (ring-back tone): This signal is sent when calling an extension.
- BT (busy tone) : This is sent when the called extension is busy.
- ROT (reorder tone) : This is sent when the dialled number is invalid.
- DND (DND tone) : This is sent when the other extension has DND assigned.
- Answer : This is sent when the other extension answers the call.
- Disconnect : This is sent when the other extension hangs up.
- Confirm (confirmation tone):
This is sent when the feature number for "Message Waiting Lamp" is valid.
- FWD VM RBT (FWD to VM ring-back tone):
Not available(reserved).
- FWD VM BT (FWD to VM busy tone):
This is sent when the called extension has set Call Forwarding to VPS.
- FWD EXT RBT (FWD to extension ring-back tone):
Not available(reserved).
- 0 through 9 * # P or p(PAUSE)

2. Voice Mail Command(VM Command DTMF Set) [114]

Sets the DTMF command signals transmitted to your Voice Processing System(VPS). There are four commands available: Leave Message; Get Message; Automated Attendant Service; Voice Mail Service. These commands are used in the following ways:

(A) If your VPS is used for Voice Mail(VM) Service

(1) Call Forwarding / Intercept Routing to Voice Mail

If a call is forwarded to the VPS, your system will send a mailbox number to the VM port. This allows the caller to leave a message without knowing the mailbox number.

-Required entries(selections):

LV-MSG(Leave Message): This command is transmitted to a VM port if a call is forwarded or intercepted and re-routed to the port.

Voice Mail

AA-SVC(Automated Attendant Service): If AA Service is set to "Start" in Additional Function, SYS1 Bit16, the "AA-SVC" command is sent to a VM port if an incoming CO call is answered by the VM port

-Other programming required(program addresses):

(2) Hearing the message at the extension

If the VPS receives a message and lights the MESSAGE button indicator of the concerned telephone, the telephone user can hear the message by pressing the MESSAGE button.

-Required entries(selections):

GETMSG (Get Message): This command is transmitted to a VM port when the message receiver presses the MESSAGE button.

VM-SVC (Voice Mail Service): The "VM-SVC" command is a code transmitted preceding the "GETMSG" command above.

This is effective to switch to VM port when an AA port lights the MESSAGE indicator.

-Other programming required(program address):

(B) If your VPS is used for Automated Attendant (AA) Service
An AA port answers an incoming CO call to provide AA services, such as call transfer, receiving a message.

-Required entries(selections):

VM-SVC(Voice Mail Service): The "VM-SVC" command is a code transmitted before "LV-MSG" code if Operator transfers a call to an extension and then it is forwarded to an AA port so that the AA port can be switched to VM port temporarily.

-Other programming required(program address):

0 through 9 * # P or p (PAUSE) H or h(Home Position)

1. VM Port No.(Voice Mail Number Assignment) [126]

Assigns the jack number corresponding to voice mail port for data transmission to the Voice Processing System.

KX-TD1232 Master 02 through 32 2 digits

Slave 33 through 64

2. EXT(Voice Mail Extension Number Assignment) [127]

Assigns the extension number for voice mail number. These numbers can be used the same way extension numbers are used for station access.

0 through 9 2,3 or 4 digits

3. EXG(Voice Mail Extension Group Assignment) [128]

Assigns each voice mail number to an extension group number.

1 through 16 2 digit

Phantom

1. Phantom Extension Number(Phantom Extension Number) [130]

Assigns the phantom numbers. Each number will be assigned to a flexible CO button and used as a Phantom button.

Blank or 0 through 9 2,3 or 4 digits

Phantom DDI No.

1. Number(ISDN DDI Number/Extension Number Transformation) [136]

Used to convert a DDI number to an Phantom extension number in order to put an incoming DDI call to a specific extension.

0 through 9 Maximum 6 digits

If you want to use this data, you must be assigned "0" on the program [990] System Additional Information, Field(37).

Operator/Manager

1. System Password(System Password) [107]

Assigns a password for entering into system programming from a proprietary telephone or a remote terminal.

0 through 9

2. User Password(User Password) [120]

Assigns a password required for entering User Programming mode.

0 through 9

3. Operator-1/-2(Operator Extension Assignment) [006]

Assigns Jack No. connected with Operator-1 or Operator-2.

Disable or Jack [] (After selecting Jack [])

01 through 64

Operator/Manager

4. Manager(Manager Extension Assignment) [006]

Assigns Jack No. connected with Manager which can enter into system programming.

Disable or Jack [] (After selecting Jack [])
01 through 64

5. Operator Queue/Hurry Up Level(Operator Queue) [129]

Assigns the limited number of queue and the number of Hurry-Up.

Queue : 0 through 8

Number of Hurry-Up : 0 through 8

Miscellaneous

1. Basic Card Type Master/Slave [109]

Assigns the type of Basic Card for Master or Slave DSHS.

For KX-TD1232

TD181: Optional CO card

TD281: ISDN card

For KX-TD816

TD182: Optional CO card

TD282: ISDN card

2. Expansion Card Type Master/Slave(Expansion Card Type) [109]

Assigns the type of Expansion Card for Master or Slave DSHS.

For KX-TD1232

EXP1: Expansion card 1 (Bottom)

EXP2: Expansion card 2 (Middle)

EXP3: Expansion card 3 (Top)

For KX-TD816

EXP1: Expansion card 1 (Bottom)

EXP2: Expansion card 2 (Top)

EXT1,2: Optional Extension card 1,2

TD180: Optional CO card

TD280: Optional 2 SO card

TD290: PRI card

3. Local Access(Automatic Access CO Line Group Assignment) [103]

Assigns CO line groups in the preferential order for Automatic Access.

1 through 8

4. CO Auto-Hold by Push DSS-Key(One-Touch Transfer by DSS Button) [108]

Assigns to enable or disable to hold an outside call automatically by pressing a DSS button during the outside call.

Disable or Enable

5. Adjust Time(Adjust Time) [115]

Sets the time to adjust the data between the system of Master DSHS and Slave DSHS.

Hour : 01 through 12 Minute : 00 through 59 AM or PM

Miscellaneous

6. EXT Pulse Dial(Pulse Dial Reception Assignment) [121]

Assigns whether the pulse dial from the extension can be received or not by the system.

Disable or Enable

7. Automatic Door Open(Automatic Door Open Assignment) [122]

Assigns whether the door is automatically unlocked or not, when pressing Call button.

Disable or Enable

Network

1. Network Type(Network Type Assignment) [110]

Assigns the type of ISDN network.

BT or EURO

FLT.EXT. DDI No.

1. Number(ISDN DDI Number/Extension Number Transformation) [112]

Used to convert a DDI number to an extension number in order to put an incoming DDI call to a specific extension.

0 through 9 Maximum 6 digits

If you want to use this data, you must be assigned "0" on the program [990] System Additional Information, Field(45).

Quick Dial

1. In(Feature Code Set) [104]

In addition to the current flexible numbering assignment, feature code for Quick Dial can be assigned.

Max 4 digits

Double entry and incompatible combinations with [100] flexible numbering are invalid.

2. Out(Quick Dial Number Set) [009]

Quick Dialing offers the extension user one-touch access to a desired party. This is enabled by storing an extension number or a telephone number up to 16-digits as a quick dial number.

You must assign a feature code first.

Up to eighty quick dial numbers can be stored.

0 through 9 Maximum 16 digits

System Time

1. System Time(Date and Time Set) [000]

Sets the time of DSHS.

Date : 01 through 31

Month : Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec

Year : 0 through 9

Day of the week : SUN, MON, TUE, WED, THU, FRI, SAT

Hour : 01 through 12 Minute : 00 through 59 AM or PM

Version

1. Version(ROM Version Display) [116]

Confirms the version of ROM of the DSHS.

ISDN Card

<Explanation>

These parameter are only displayed and cannot be changed.

1. Slot No.

BASE: no parameter

EXP(Explanation): Confirm the number of the slot installing the EXP. Card.

2. Card Type

Confirm the type of the installing Card.

3. Connection

Confirm the status of the connection between the CPU Card and the ISDN Card.

DISCONNECT: Installing no ISDN Card, or the incorrect connecting the Card, and or, the communication error of the CPU Card, the ISDN Card.

ACTION: During the trying establishing the data communication.

ESTABLISH: Establishment of the data communication.

4. RAM(even/odd)

Confirm the RAM status of the ISDN Card, and it is displayed by OK or NG.

OK: normal

NG: Error(have the any obstruction)

5. ROM Version

Confirm the ROM version of the ISDN Card.

6. ROM(even/odd)

Confirm the ROM checksum of the ISDN Card.

7. Communication Error Count

Confirm the count of the occurring the checksum error in the message of the data communication between the CPU Card and the ISDN Card.

ISDN Card

8. Card Reset Count

Confirm the count of the resetting the ISDN Card.
Normally, it makes a count after the power on.

9. Clock Detect

Confirm the status of detecting the clock from ISDN Network.
o: possible to detect the clock
x: impossible to detect the clock

10. Clock Select

Confirm the status of selecting the reference clock for synchronisation.
o: getting the synchronisation on the line of this Card
x: not getting the synchronisation on the line of this Card

11. Port Status

Confirm the status of every port of the ISDN Card.
o: useable
x: not useable

TRS Deny

1. TRS Deny(Toll Restriction Denied Code Entry) [301,302,303,304,305]

Assigns telephone numbers prohibited for each Toll Restriction level.
0 through 9 *(a wild card character)

TRS Exception

1. TRS Exception(Toll Restriction Excepted Code Entry) [306,307,308,309,310]

Assigns telephone numbers not prohibited for each Toll Restriction level.
0 through 9 *(a wild card character)

LCR Parameter

1. Mode(LCR Mode) [7000]

Allows you to turn on or off the Least Cost Routing(LCR) mode. LCR, if enabled, selects the least expensive route to be used for a CO call.

On or Off

2. Top of Area Code No.(Area Code Leading Digits Entry) [7001]

Registers leading digits of an area code used for outgoing toll calls.

0 through 9 Maximum 2 digits

3. BTL Access Code(BTL Access Code) [7002]

Stores the BTL(British Telecom Line) access code.

0 through 9 Maximum 10 digits

Itemized for PITS/SLT

1. Itemised Code(Itemised Code Set) [7003]

Registers an itemised code applied to an extension. The registered code is inserted into the "I" command position stored in program [7X22] "LCR Carrier Modify Command"

0 through 9 maximum 4 digits

Itemized for ISDN

1. Itemised Code(Itemised Code Set)

Registers an itemised code applied to an extension. The registered code is inserted into the "I" command position stored in program [7X22] "LCR Carrier Modify Command"

0 through 9 maximum 4 digits

Itemized for PS

1. Itemised Code(Itemised Code Set)

Registers an itemised code applied to an extension.
The registered code is inserted into the "I" command position
stored in program [7X22] "LCR Carrier Modify Command"
0 through 9 maximum 4 digits

LCR Setting

1. Carrier Code(LCR Carrier Code) [7X21]

Assigns carrier access codes used for LCR feature.
0 through 9 maximum 10 digits

2. Modify Command(LCR Carrier Modify Command) [7X22]

Assigns modification commands applied to carrier numbers.
Dialled numbers are modified according to the programmed
commands. available commands are as follows:

- C: Insert carrier code
- P: Send pause
- T: Change to tone(DTMF) mode
- A: Insert Authorisation code
- I: Insert Itemised code
- H: Home Position

maximum 10 entries

3. Trunk Group(LCR CO Line Group Assignment) [7X23]

Assigns CO line groups that correspond to an LCR carrier.
1 through 8 maximum 8 entries

4. Authorise Code(Authorisation Code Set) [7X24]

Registers an authorisation code applied to a CO line.
The registered code is inserted into the "A" command position
stored in program [7X22] "LCR Carrier Modify Command"
0 through 9 maximum 20 digits

LCR L-Digit

1. L-Digit(LCR Leading Digit Entry) [7X01...7X08]

By entering numbers into each leading digit plan for a maximum of eight carriers, you are starting the process to determine which CO line group will be used to route the call. Eight tables are available per carrier.

0 through 9, *(a wild card character) maximum 7 digits

LCR Time & Fee

1. Time & Fee(LCR Time and Fee Set) [7X11...7X18]

Assigns time schedules and charged fee for a maximum of eight plans of a maximum of eight carriers. It is possible to split a day into four time zones max. so that the least expensive line is selected for that time. According to the service hours and charges offered by your carriers, enter the starting time of each zone.

Hour : 01 through 12 Minutes : 00 through 59 AM or PM
Pounds: 00 through 99 Pence: 00 through 99

LCR EXCP Digit

1. EXCP Digit(LCR Exceptional Code Set) [7X20]

Assigns dialling numbers that are excepted from LCR routing plans of the specified carrier. They are sent out to a CO selected from automatic access CO line groups.

0 through 9, *(a wild card character) maximum 7 digits

Music & Paging

1. Hold Music No.(Music Source use for Hold Music) [803]

Assigns music sources for Hold Music.

- 1 : Music Source 1 of Master DSHS
- 2 : Music Source 2 of Master DSHS - : No music
- 3 : Music Source 1 of Slave DSHS
- 4 : Music Source 2 of Slave DSHS

2. BGM No.(Music Source for BGM Assignment) [803]

Assigns music sources for B.G.M.

- 1 : Music Source 1 of Master DSHS
- 2 : Music Source 2 of Master DSHS - : No music
- 3 : Music Source 1 of Slave DSHS
- 4 : Music Source 2 of Slave DSHS

3. Pager Tone(External Pager Confirmation Tone) [805]

Assigns the confirmation tone for external pagers to be sent or not.
ON or OFF

4. Ex-Pager EXT No.(Floating Number Assignment) [813]

Assigns Floating Extension numbers for External Pager 1 through 4
0 through 9

5. BGM(External Pager BGM) [804]

Assigns B.G.M. to be sent or not for external pagers 1 through 4
ON or OFF

Administration & SMDR & Modem

1. MODEM EXT No. (Floating Number Assignment) [813]

Assigns Floating Extension number for MODEM which is assigned as DIL 1:1 destination.
0 through 9

2. MODEM TYPE(MODEM Type Standard) [814]

Assigns the type of a modem.
BELL or CCITT

3. RS-232C Interface(EIA(RS-232C) Parameters) [806,807]

Parity : None, Mark, Space, Even, Odd
NL Code : CR+LF or CR
Word Length : 7 or 8 bits
Stop Bit : 1 bit or 2 bit
Baud Rate : 150, 300, 600, 1200, 2400, 4800, 9600

4. SMDR Duration Log Outgoing(SMDR Outgoing Call Log Printout) [800]

Assigns the type of SMDR outgoing calls being printed out.
All ; All duration of outgoing calls
Toll ; Only duration of Toll calls
Off ; Not printed

5. SMDR Duration Log Incoming(SMDR Incoming Call Log Printout) [800]

Assigns to print out SMDR incoming calls.
On ; All incoming calls or Off ; Not printed

6. Format-Page Length(SMDR Format) [801]

Assigns the number of lines per page when the record is printed out.
04 through 99

7. Format-Skip Perforation(SMDR Format) [801]

Assigns the number of lines to be skipped at the end of every page.
00 through 95

DTA

1. DTA EXT No.(Floating Number Assignment) [813]

Assigns an extension number to each DTA extension.
0 through 9

Hotel

1. Hotel Application(Hotel Application) [123]

Assigns whether the hotel application is enabled or disabled.
Disable or Enable

2. Charge Display Type(Charge Display Selection) [117]

Selects the display format used for charge display.
Pound or Pulse

3. Charge Margin, Tax(Charge Margin and Tax Rate) [011]

Assigns the margin rate of a telephone charge and the tax rate to the total charge. This program is used for printing out the total charge when a guest checks out.

Margin : 0 through 999.9
Tax : 0 through 200.0

4. Charge ID code(Charge Fee Reference ID Code Set) [119]

Assigns the identification code (ID code) required to verify charges.
0 through 9 Maximum 4 digits

5. Denomination(Assignment of Denomination) [125]

Assigns the Denomination required for your country.
Maximum 2 characters

6. Charge Margin/Tax(Charge Margin and Tax Rate) [011]

Assigns the margin rate of a telephone charge and the tax rate to the

total charge.

0 through 9

Tax : 0.0 through 200.0

Hotel

7. Charge Title 2(Hotel Check-out print sheet title)

Maximum 14 character

8. Charge Title 3(Hotel Check-out print sheet title)

Maximum 14 character

9. Title Header(Hotel Check-out print sheet header)

Assigns the title header printed on a paper when the Hotel Application feature is available.

0 through 9, A through Z, a through z.

* # ! ? space . , ' : ; / + - = < > \$ % & @ ()

Maximum 80 character/Line , Maximum 3 lines

10. Header Start Line(Title Header Start Line Assignment)

Assign the first line on which the title header is printed when the Hotel Application feature is available.

01 through 96

11. Header Start Column(Title Header Start Column Assignment)

Assign the first column on which the title header is printed when the Hotel Application feature is available.

01 through 80

12. Data Start Line(Data Start Line Assignment)

Assign the first line on which the data is printed when the Hotel Application feature is available.

04 through 99

13. Data Start Column(Data Star Column Assignment)

Assign the first column on which the data is printed when the Hotel Application feature is available.

01 through 80

Charge Rate

1. Fraction Place(Charge Rate Fractional Point Assignment) [015]

Assigns how many decimal places to set for the charge rate.
1 through 8

2. Charge Rate(Charge Rate Assignment) [016]

Assigns the rate to each CO line.
0.0 through 99999999.9

Additional Function

FNC	BIT	Explanation	
SYS1	1	Sound source during transfer.	
		0 : ring-back tone	[990]
		1 : Music on hold	
SYS1	2	Result of pressing the hookswitch lightly and then placing down the handset (during an outside call; single line telephones only).	
		0 : Consultation Hold	[990]
		1 : disconnection	
SYS1	3	Result of pressing the RECALL button on proprietary telephones (during an outside call).	
		0 : disconnecting signal	[990]
		1 : register recall signal	
SYS1	4	Enables or disables the CO Pulse feedback tone.	
		0 : disable	
		1 : enable	[990]
SYS1	5	Selects the destination during the day mode, when operator number is sent as a Direct Dialling In number.	
		0 : DIL 1:N	
		1 : Operator	[990]
SYS1	6	Selects the destination during the night mode, when operator number is sent as a Direct Dialling In number.	
		0 : DIL 1:N	
		1 : Operator	[990]
SYS1	7	Assigns the operation when the Master and Slave system of KX-TD1232 are disconnected.	
		0 : Reset automatically	[990]
		1 : Not reset	
SYS1	8	Enables or disables the dial tone between obtaining a CO line and dialling the phone number when using the one-touch dial, redial or speed dial function.	
		0 : Enable	
		1 : Disable	[990]

Additional Function

SYS1 9 Result of pressing the hookswitch lightly
(single line telephones only).

0 : Consultation Hold 1 : disconnection [990]

SYS1 10 Sets the duration of the DTMF signals sent to the Voice
Processing System(VPS) ports.

0 : 80 msec 1 : 160 msec [990]

SYS1 11,12 Sets the time the system waits before sending DTMF signals
(such as a mailbox number) to VPS after VPS answers a call.

BIT	12	11	Time	[990]
	0	0	0.5 seconds	
	0	1	1.0 seconds	
	1	0	1.5 seconds	
	1	1	2.0 seconds	

SYS1 13,14 Sets the time the system waits before sending DTMF signals
(programmed in [113]) to VPS after the VPS calls an extension.

BIT	13	14	[990]
	0	0	0.5 seconds
	0	1	1.0 seconds
	1	0	1.5 seconds
	1	1	2.0 seconds

SYS1 15 Assigns whether the system turns off the Message Waiting lamp
or the VPS does when the user hears a message recorded in
a mailbox.

0 : system 1 : VPS [990]

SYS1 16 Assigns whether the system starts the Automated Attendant
Service or not if an outside call is directed to VPS by Call
Forwarding or Intercept Routing. If "start" is assigned, the
"AA-SVC" code programmed in program [114] is transmitted to
the voice mail port and the Follow On ID function does not
work.

0 : do not start 1 : start [990]

Additional Function

- SYS2 1 If an outside party is transferred and unanswered, assigns whether Transfer Recall occurs at the transfer originating extension or at Operator 1.
- 0 : extension 1 : Operator 1 [990]
- SYS2 2 If Limited Call Duration is enabled in program [502] "Extension-to-CO Line Call Duration Limit," assigns if Limited Call Duration is done for both outgoing and incoming calls or for outgoing calls only.
- 0 : both calls 1 : outgoing calls only [990]
- SYS2 3 Allows you to remove confirmation tone 4. By default, a beep tone sounds when a three-party conference is started/ ended.
- 0 : disable 1 : enable [990]
- SYS2 4 Determines if the dialled "*" and "#" will be checked by Toll Restriction. This assignment is required for certain central offices(CO) to prevent toll fraud. Some CO ignore the user-dialled "*" and "#." If your CO is such a type, select "0" (no check).
- 0 : no check 1 : check [990]
- SYS2 5 Enables or disables the Recall function when receiving an outside call at a locked or toll-restricted station. Recall, if enabled, allows the user to make an outside call using the same line at the station. This is also allowed for those extensions that have Account Code - Verified - All Calls mode assigned, if "0"(disconnection signal) is selected in SYS1 bit3 above.
- 0 : Disable 1 : Enable [990]
- SYS2 6 Allows you to remove Confirmation Tone 3. This tone is sent when a conversation is established just after dialling the feature numbers for accessing the following features: Call Pickup, Paging Answer, TAFAS Answer, Hold Retrieve and Call park Retrieve.
- 0 : disable 1 : enable [990]

Additional Function

- SYS2 7 A CO line set to pulse or call blocking mode in program [402]
"Dial Mode Selection" can have two settings. This assigns the
pulse break ratio during dial pulsing. Select an appropriate
ratio depending on the standard in your country.
- 0 : 60% 1 : 67% [990]
- SYS2 8 Assigns if an extension's mailbox number is substituted by the
extension number or it is programmable(free). If a call is
forwarded or re-routed to the VPS, this system automatically
transmits the mailbox number to the VPS to specify the user's
mailbox. To make it programmable, select "1(free)," then assign
the number in program [609] "Voice Mail Access Code."
- 0 : extension number 1 : free [990]
- SYS2 9 Assigns the first display of a digital large display
proprietary telephone(KX-T7235) in Station Speed Dialling.
- 0 : names 1 : numbers [990]
- SYS2 10 Assigns the source of Music Source 1 for Music on Hold and BGM.
- 0 : internal music source [990]
1 : external music source
- SYS2 11,12 Selects inter-digit pause for pulse dialling.
- | | | | | |
|-----|----|----|---------|-------|
| BIT | 12 | 11 | | [990] |
| | 0 | 0 | 630 ms | |
| | 0 | 1 | 830 ms | |
| | 1 | 0 | 1030 ms | |
- SYS2 13 Selects intercom dial tone frequency.
- 0 : normal 1 : distinctive [990]
- SYS2 14 Selects the extension-hooking signal detection time.
- 0 : 32-1000 ms 1 : 32-136 ms [990]
- SYS4 9 Prohibits or allows a call originated by an AA port of VPS to
another AA port.
- 0 : prohibit 1 : allow [990]

Additional Function

- SYS4 10 Restricts or allows sending pulse dialling signals during an outside call.
- 0 : prevent 1 : allow [990]
- SYS4 11 Enables or disables the SMDR printout of the secret dial numbers.
- 0 : disable 1 : enable [990]
- SYS4 12 Enables or disables the Digital Test Access.
- 0 : enable 1 : disable [990]
- SYS5 2 Assigns whether the system sends the Follow On ID code to the VPS or not, when a call is directed to the VPS by Call Forwarding.
- 0 : disable 1 : enable [990]
- SYS5 3 Assigns whether the system sends the Follow On ID code to the VPS or not, when a call is directed to the VPS by Intercept Routing.
- 0 : enable 1 : disable [990]
- SYS5 4 Assigns how an SLT user replies to a message left by the Message Waiting feature.
- 0 : off-hook and feature number [990]
1 : off-hook
- SYS5 5 Assigns how to treat the extension user who reaches the pre-assigned limit if the Budget Management feature.
- 0 : Sends an alarm sound and then disconnects the [990]
line in fifteen seconds.
1 : sends an alarm sound
- SYS5 6 Assigns whether the data (the date and room number) is printed out or not when a guest checks-in and checks-out.
- 0 : enable 1 : disable [990]

Additional Function

- SYS5 7 Assigns whether to send an absent message, No.6-9, to an extension or to output it to the printer when the feature number is dialled. Outputting the message to the printer is useful when informing a receptionist of the cleaning status of a room or the total of the minibar at the hotel.
- 0 : SMDR(printer) 1 : extension [990]
- SYS5 8 Assigns whether or not the new page will start whenever printing out the data in the Hotel Application feature.
- 0 : enable 1 : disable [990]
- SYS5 9 Assigns whether or not to print out the data when the system receives a call and a call is answered.
- 0 : enable 1 : disable [990]
- SYS5 10 Assigns whether or not to add an extension number to a subscriber's number for Calling Line Identification Presentation and Connected Line Identification Presentation.
- 0 : do not add 1 : add [990]
- SYS5 11 Assigns the extension number which receives an incoming DDI call. The number through the ISDN line is changed into the extension number in the system. This program decides how to change the number.
- 0 : The number transformed in [111] [990]
1 : The number equals the number from the ISDN
line minus the subscriber's number programmed
in [419]
- SYS6 1 Disables or enables sending dial tone after seizing a CO line.
- 0 : disable 1 : enable [990]
- SYS6 3 Assigns whether the system disconnects the CO line or not if nothing is dialled after seizing a CO line.
- 0 : disconnect 1 : do not disconnect [990]
- SYS6 4 Assigns whether the system transforms an incoming DDI call number to a specific extension number or not.
- 0 : transform 1 : do not transform [990]

Additional Function

SYS6 5 Selects the way to access CO line to apply LCR.

0 : Dial 9 or press L-CO button. [990]

1 : Dial 9, press L-CO button, press G-CO button
or press S-CO button.

SYS6 6 Assigns if pressing the HOLD button twice acts as Exclusive Hold or Hold Retrieve.

0 : Hold Retrieve 1 : Exclusive Hold [990]

SYS6 7 Assigns whether the system displays the authorisation code while programming in program [7X24] "Authorisation Code Set."

0 : display 1 : do not display [990]

SYS6 9 Selects to activate the OHCA or BSS function for the KX-T7130 and KX-T7235 telephone.

0 : BSS 1 : OHCA [990]

SYS6 10 Whether the hunting works or not when the incoming call directly reaches an extension of a hunting group of the Termination or Circular type.

0 : hunting do not work [990]

1 : hunting works

Additional Function

COS1-8 4,3,2,1 Assigns the number of the available digit to dial in case of having a conversation with an outside party.

BIT	4	3	2	1		[991]
	0	0	0	0	Not limited	
	0	0	0	1	1 digit	
	0	0	1	0	2 digits	
	0	0	1	1	3 digits	
	0	1	0	0	4 digits	
	0	1	0	1	5 digits	
	0	1	1	0	6 digits	
	0	1	1	1	7 digits	
	1	0	0	0	8 digits	
	1	0	0	1	9 digits	
	1	0	1	0	10 digits	
	1	0	1	1	11 digits	
	1	1	0	0	12 digits	
	1	1	0	1	13 digits	
	1	1	1	0	14 digits	
	1	1	1	1	15 digits	

COS1-8 5 Assigns to enable or disable the Call Forwarding-Follow Me feature.

0 : Disable 1 : Enable [991]

Test Entry

<Condition>

You cannot execute testing through Jack No. 01. If you connect the modem to Jack No. 01, please reconnect it to another jack.

Test Menu

<Explanation>

- (1) BAC 1/2/3 and EXP 1/2/3 in Configuration indicate the types of the cards in order of being installed and the numbers are automatically attached to the cards. All tests are executed according to the numbers. If the cards are not installed, BAC 1/2/3 and EXP 1/2/3 are displayed as blanks.
- (2) OP2/3/4 indicate RMT, DPH and SIC cards when they are installed.
- (3) The system (Master or Slave) which is now tested is displayed in the screen.

DTMF G/R Test

<Operation>

- (1) Enter the number of the extension card (1 through 2) or * (a wild card character) and then press ENTER key.
- (2) The result is displayed by OK or NG.
- (3) Press F8 (EXIT) to return to Test Menu screen.

<Note>

The System (Master or Slave) which is now being tested is displayed in the screen.

<Explanation>

Examines the function of receiving DTMF of an extension card.

-The DTMF signal is sent from the DTMF generator in the CPU card, passes through CODEC and reaches the DTMF receiver in an extension card.

<Condition>

All extensions connected with the extension cards must be on-hook or disconnected to reflect the signal at the balance network circuit.

EXT Card Test

<Operation>

- (1) Enter the number of the extension card (1 through 4) or *(a wild card character) and then press ENTER key.
- (2) The result is displayed by OK or NG.
- (3) Press F8 (EXIT) to return to TEST Menu screen.

<Note>

The System (Master or Slave) which is now being tested is displayed in the screen.

<Explanation>

- (1) Examines the digital path of an extension card.
 - The DTMF signal is sent from the DTMF generator in the CPU card. It passes through the telephone interface circuit in the extension port M of the extension card N and turns back to TWS. (The telephone interface circuit turns the signal back inside.) Then the signal passes through the port 1 of CO card 1 and the Diagnosis path, and reaches the DTMF receiver through the extension port 1 of the extension card 1.
- (2) Examines the data communication circuit of digital proprietary telephones of the extension cards.
 - The telephone interface circuit is automatically assigned to turn the HDLC data back to HDLC Communication Circuit. The feature is examined as mentioned.
 - The test is executed from port 1 to port 8.

CO Card Test

<Operation>

- (1) Enter the number of the CO card (1 or 2) or *(a wild card character) and then press ENTER key.
- (2) The result is displayed by OK or NG.
- (3) Press F8 (EXIT) to return to Test Menu screen.

<Explanation>

- (1) Examines the path of CO cards.
 - The DTMF signal is sent from the DTMF generator in the CPU card. It passes through CODEC in the CO port M of the CO Card N. (It is reflected at the balance network circuit.)
 - The signal is turned back to TWS, passes through the port 1 of CO card 1 and reaches the DTMF receiver through the Diagnosis path and the extension port 1 of the extension card 1.

<Condition>

- (1) To reflect the signal at the balance network circuit, the extensions connected with the extension card 1 must be on-hook or disconnected.
- (2) To reflect the signal at the balance network circuit, the CO lines must be disconnected from CO cards.
- (3) Examines the CPC detection function, sending the DTMF and the pulse dial function, and the BELL detection function of CO ports.
 - 1) The extension port is turned into the diagnostic mode.
 - 2) The CO port M is turned into the diagnostic mode .
 - 3) DIAL is switched on and an electric current is sent to the BELL/CPC detection circuit in the port.
 - 4) The DTMF signal is sent from the DTMF generator in the CPU card and received on the DTMF receiver in the extension card.
 - 5) The Pulse is sent from and received on the HOOK/PULSE receiving circuit in the extension port.
 - 6) DIAL is switched off and an electric current is not sent to the BELL/CPC detection circuit.
 - 7) The Bell is sent from the extension port and received on the BELL/CPC detection circuit in the CO port M.
 - 8) The CO port and the extension port quit the diagnosis mode.
 - 9) The test mentioned above is executed from the port 1 to port 8 of the CO card 1 and from the port 1 to port 4 of the CO card 2.

DPH,RMT,CONF Test

<Operation>

- (1) Enter the number of the card (1 through 4) and then press ENTER key.
- (2) The result is displayed by OK or NG.
- (3) Press F8 (EXIT) to return to Test Menu screen.

<Note>

The System (Master or Slave) which is now being tested is displayed in the screen.

<Explanation>

- (1) Examines ports of the DPH card.
 - The DTMF signal is sent from the DTMF generator in the CPU card and received on the DTMF receiver in the extension card.
 - The signal is sent in the following order.
- (2) Examines the loop-back on the RMT card.
 - The digital and analogue serial data are looped back in MODEM IC.
- (3) Examines the path in the CONF trunks.
 - The DTMF signal is sent from the DTMF generator in the CPU card, passes through the CONF trunk and reaches the DTMF receiver in the extension card.

<Condition>

Doorphones must be disconnected from the Doorphone ports to reflect the signal at the balance network circuit.

SIC Test

<Operation>

- (1) Press ENTER key to proceed.
- (2) The result is displayed by OK or NG.
- (3) Press F8 (EXIT) to return to Test Menu screen.

<Note>

The System (Master or Slave) which is now being tested is displayed in the screen.

<Explanation>

- (1) Examines the SIC path.
 - The DTMF signal is sent from the DTMF generator in the CPU card, passes through SIC path, reflected at TSW of another system, and is received on the DTMF receiver in the extension card.

PT Test

<Operation>

- (1) Enter the number of the extension card (1 through 4) or *(a wild card character) and then press ENTER key.
- (2) The result is displayed by OK or NG.
- (3) Press F8 (EXIT) to return to TEST Menu screen.

<Note>

- (1) A proprietary telephone is abbreviated to PT in the screen.
- (2) The System (Master or Slave) which is now being tested is displayed in the screen.

<Explanation>

- (1) Examines the normal path of analogue proprietary telephones.
 - The DTMF signal is sent from the DTMF generator to the normal path in an analogue proprietary telephone and received on the DTMF receiver in the extension card.
- (2) Examines the OHCA path of analogue proprietary telephones.
 - The DTMF signal is sent from the DTMF generator to the OHCA path in an analogue proprietary telephone, passes through CODEC and TSW in OHCA and the CO port 1 of CO card 1, and received on the DTMF receiver in the extension card 1.
- (3) Examines the normal path of digital proprietary telephones.
 - The DTMF signal is sent from the DTMF generator to the normal path

in a digital proprietary telephone, passes through TSW in the CPU card and is received on the DTMF receiver in the extension card 1.

ISDN SO Card Test

<Operation>

- (1) Enter the number of the extension card (1 through 2) or *(a wild card character) and then press ENTER key.
- (2) The result is displayed by OK or NG.
- (3) Press F8 (EXIT) to return to TEST Menu screen.

<Note>

The System (Master or Slave) which is now being tested is displayed in the screen.

<Explanation>

PRI Card Test

<Operation>

- (1) Press ENTER key to proceed.
- (2) The result is displayed by OK or NG.
- (3) Press F8 (EXIT) to return to Test Menu screen.

<Note>

The System (Master or Slave) which is now being tested is displayed in the screen.

<Explanation>

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Printed in the UK