PABX

Complementary User's Manual Group Telephone System

CDX-CS+/TS+



Plsease read this manual before using

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Chap 1 Brief Introduction & Features

1.1 System Overview

This ser manual is the complementary user manual for CS/TS serial, suit for S208+/CS308+/CS312+/CS416+/TS208+/TS308+/TS312+/TS416+, when using this user manual, should be together with the basic user manual of CS/TS serial.

1.2 Features

On the basic of the functions of CS/TS, CS+/TS+ has more following functions:

- ◆ Inquiry Function: the system can be caller ID, report extension number, system version display and system condition display.
- Chord Melody Music: this system can use the 11 chord melody music as the internal music on holding.
- ◆ IP Dialing: set long-distance IP number, can add the IP number automatically when dial the long-distance number.
- ◆ **Blacklist:** the system can be set 16 groups blacklist number, prohibit these numbers calling.
- ◆ Extension Groups: can set two groups at most and each group can set the extensions number freely, when dial the extension group, all the extensions in the group are ringing.
- Operator Routing: according to the dial-out number, select two C.O. lines freely and can be used on wireless terminal board to save charges.
- Transfer Caller ID: external line calling and internal calling both can display the calling number.
- ♦ Auto-attendant DISA: the basic DISA is 20s three paragraphs, can expand to above 60s four paragraphs.
- ◆ Door Phone & Lock Control(optional): can set two extensions are door phones and control the door lock.
- ◆ Automatically Detected(optional): when start the system, the system can detect all the equipment and prohibit the bad equipment.

1.3 Other Customized Functions and Parts

 Door Lock Interface: change the standard function interface board to match the door lock function.
☐ Auto-attendant Module: can choose 60s/90s to expand system OGM
□Door Phone CDX001: stainless steel and aluminium alloy panel with automatical shutdown function.
☐ Door Phone CDX002: plastic panel with automatical shutdown function.
 Wireless Moduel: built-in wireless moduel to achieve the wireless phone function.(just fo TS+ serial)



Chap 2 Functions Intruction

- → Following function settings (Format:) should be in the programming status; how to go to the programming status, please refer the basic user manual.
- ♦ Extensions Number: for 416 N=01-16 for 208/308 N=01-08 (two digits)

C.O.Lines Number: for 416 M=1-4 for 208/308 M=1-3(one digit)

- Following operations(instruction:) should not be in the programming status, it can be operated when off-hook directly, if without special instruction, this suit for all the extensions.
- ♦ If the Ext. is in indirect-dialing-out mode(refer 3.9), no need to dial * which is in [] in following operation. In examples we suppose the Ext. is in indirect-dialing-out mode if don't explain specially.

2.1 CID function

- Programming and operation please refer the basic user manual item3.15.
- Please choose the correct external calling receiving mode, it should be according to the telephone sending mode.
- First time, please put off the battery of the telephone one time and that can sure the telephone sending mode is compatible with the system receiving mode.

2.2 Chord Melody Music Fuction(Holding music setting)

2.2.1 Setting Chord Melody Music

Format: 141KK# Set the system to play music kk, KK=01-11

14100# Set the system sequence playing 11 music

145PP# Set chord melody music volume to PP; PP: 00-16, max volume is 16

2.2.2 Monitor holding Music

Format: 14# Monitor thechord Melody music

2.2.3 Monitor & Test Chord Melody Music

instruction: [*] # 67 KK #

Explanation: KK: music number KK = 00 - 11, 00 means current music

Description: This command will change the music, when you use this command, you will not



only hear the music you have selected, but also set the system to use this music. This command is different from the command in programming mode.

2.3 System Inquiry Fuction

2.3.1 Programming Setting

Format: 143# (optional) Use voice announcing EXT no when use instruction #62--#66

144# Use CID display EXT Number when use instruction #62--#66,

this is the default setting.

2.3.2 Reporting of Ext number for Caller ID phone

Format: [*] # 62

Example: Pick-up Ext.626 (caller ID phone), Input #62, after hear a du then hang up, you

can see the extension's physical series number & current call number from the

telephone: 26 626, first 26 is the Extension port No.

2.3.3 Reporting of PBX System Version

Format: [*] # 64

Description: After input the command and hang down, telephone will ring, and the system

version will be displayed in your caller identify telephone.

2.4 Extensions Groups Function

2.4.1 Assign the Exts. Groups number

The extensions can be set to 2 groups, each group is from 01 to 16 and have a programmed number. Setting methods is as below(similar to flexible code).

Format: 9 9 0 abcd #

Description: to set the first groups' number and enable the first Exts group,

Format: 9 9 1 abcd #

Description: to set the second groups' number and enable the second Exts group,

1. The length of Exts groups number should be same to the first extension number, and the Exts group numbers should be different to the other extensions number.

2. Default setting without avail.

2.4.2 Join the Exts. Groups Members

Format: 390#

Description: to delete all extension members in the first Exts group.

Format: $3 9 0 N_1 N_2 ... N_R * N_S ... N_T #$



Explanation: N_1 , N_2 , N_R , N_S , N_T : the Ext. series No., from 01 – 16 (01 means Ext.601 16 means Ext.632)

Description: In the first Exts group join in Ext. N_1 No.N Ext.₂ No.N Ext._T and from Ext. N_R to No.N Ext._S in sequence members.

Example: to jion Ext.601 Ext.602 and Ext.608 Ext.611 ...to Ext.616(include Ext.616) in sequence to be the first Exts.group member, then input 390 01 02 08 11 * 16 #.

After setting, when you dial the first Exts group number; the Ext.601 Ext.602 Ext.608 and Ext.611 Ext.612 ... to Ext.616 will ringing at the same time.

Format: 391#

Description: to delete all extension members in the second Exts group.

Format: $3 \ 9 \ 1 \ N_1 \ N_2 \dots \ N_R \ * \ N_S \dots \ N_T \ \#$

Description: In the second Exts group join in Ext. $N_1 \setminus No.N$ Ext.₂ $\setminus No.N$ Ext.₇ $\setminus No.N$ Ext.₈ and from Ext. N_R to No.N Ext.₈ in sequence members.

1.The first Exts.Group members is join by the extensions from 601-604(for type 208/308) and 601-608(for type 416) in default setting.

2. The second Exts.Group members is join by the extensions from 605-608(for type 208/308)and 609-616(for type 416)in default setting.

2.4.3 Setting the Exts. Groups working mode

Format: 168#

Description: to define the Exts. groups are in meeting mode.

Explanation: when Extension groups are in meeting mode; If one extension call one

extension group, the members in this group will ring at the same time, each extension can pick up the handset and talk with the caller, while the other

extension keep ringing. This function is also a conference function.

Format: 169#

Description: to define the Exts groups are in normal calling mode.

Explanation: when Extension groups are in normal calling mode; If call one extension group, the members in this group will ring at the same time, each extension can pick

up the handset and talk with the sender, if someone pick up the handset, the

other extension will stop ring.

Default setting is normal calling mode.

2.5 OGM Expand Functions

2.5.1 Programming Setting

New system can expand to two OGM ,each OGM can order for 60/90seconds long time recording, and have more function refer to below instructions.

Note: default is one OGM and 20seconds.

2.5.2 Setting OGM paragraph mode

The system use three paragraph of OGM messages, and can be set to three mode, see below:

Format: 0451# Set OGM to be one paragraph mode

0452# Set OGM to be two paragraph mode

Description: In two paragraph mode, it is day/night mode, while in day-time the system use the first paragraph, in night-time the system use the second paragraph)

Format: 0453# Set OGM to be three paragraph mode; it is default setting

0454# Set OGM to be four paragraph mode

Description: In four paragraph mode, while in day-time the system use the first three paragraphs recording, in night-time the system use the fourth paragraph) ,also only when you order the OGM with 60&90 seconds recordable time can use this mode.

2.5.3 OGM recordable time

For 20 seconds type

- In one paragraph mode is total 20 seconds.
- ◆ In two paragraph mode each paragraph is 10seconds
- ♦ In three paragraph mode the first paragraph is 8 seconds, the second & the thirth paragraph is 6 seconds

For 60 seconds type

- ◆ In one paragraph mode is total 60 seconds.
- ◆ In two paragraph mode each paragraph is 30seconds
- ◆ In three paragraph mode each paragraph is 20seconds
- ♦ In four paragraph mode the first&the fourth paragraph is 20seconds,the second&the thirth paragraph is 10seconds

2.5.4 OGM Recording(multiple paragraphs mode)

Format: 1 2 M # (M=1,2,3, 4, the paragraph of the OGM)

Description: Used to record an outgoing message for Direct Inward System Access(DISA).

OGM 1 recording, this is the first OGM, usually it is for company greeting, for example, you may record "This is ABC company, Pls dial extension number or dial "0" for operator. Thanks you for calling."



- **OGM 2** recording , this is the second OGM, usually it is for c.o.line dial extension and this extension is busy, if you want to transfer this calling to other extension, you may record "Sorry! This extension is busy. Pls dial other extension number or dial "0" for operator."
- **OGM 3** recording , this is the third OGM, usually it is for c.o.line dial extension and this extension no answer, you may record "Sorry! This extension do not answer, Pls dial other extension number or dial "0" for operator."
- 1>. The recording time is limited, "du" is heard to start recording and another "du" to end recording;
 - 2>. The new message will overwrite the old one;
 - 3>. Please use high quality telephone to ensure high quality of recording;
 - 4>. If the caller dials a number before the system finishes playing the message, the system will terminate playing the message, waiting for the caller to complete dialing;
 - 5>. The caller will be connected to Operator if he/she dial 0 first for inquiry;

2.5.5 OGM playing(multiple paragraphs mode)

Format: 13 M # (M=1,2,3, 4 the paragraph of the OGM)

Description: Confirms the recorded message in the OGM recording program, you can check

if the recording is satisfied or not, if not, you can record again.

2.5.6 One paragraph OGM Mode

Format: 1200 #

Description: to recording one paragraph OGM

Format: 1300 #

Description: to play and minitor one paragraph OGM

Note: 1. After performed above two commands(1200# or 1300#), system will change to one paragraph OGM mode automatically.

- 2. After performed 12M#、13M# two commands, system will change to three paragraphs OGM mode automatically.
 - 3. The OGM mode will be kept after power off.

2.5.7 Operation Instruction

Format: off-hook + (*) + # + 68 P, default is 0

Description: To setting the OGM volume and monitoring P=0-7, biggest is 0

Note:It don't effect the OGM pragraph mode.

2.6 C.O.Line Calling in Auto-attendant Mode Process

2.6.1 OGM busy Process in Auto-attendant Mode

Format: 1540#

Description: when external call in and the OGM is busy ,then system is waiting,this is default

setting.

Format: 1541#

Description:when external call in and the OGM is busy ,then system will change to operator mode and call the Ringing Extensions Assignmented by user mannul .

2.6.2 Auto-attendant Mode no dial Process

Format: 160# this is default setting

Description: In auto-attendant mode, if the C.O. line doesn't dial the extension number over 5 seconds or more after hearing the OGM, then the C.O. line will be hung up.

Default setting: The C.O. line will be hung up if no dialing.

Format: 1 6 1 # or 1610#

Description: In auto-attendant mode, if the C.O. line doesn't dial the extension number over 5 seconds or more after hearing the OGM(no dialing in The DISA), then the C.O. line will be transferred to Operator or the Ext.Group (setting see below).

Format: 161G#

Description: G=1-2 Extensions Groups series; The system will call the G extension group

when no dialing in The DISA (OGM)

Format: 1616#

Description: The system will call the operator attendant mode Ringing Extensions refer to user mannul.

2.6.3 Called Extension Busy Process

Format: 165#

Description: when the outside user dialing the extension in auto-attendant mode, and the called extension is busy, then the system cut off the line; this is the default setting.

Format: 1650#

Description: when the called extension is busy, the call transferred to operator.

Format: 165G#

Description: G=1-2 Extensions Groups series; when the called extension is busy, The system will call the G extension group.



Format: 1656#

Description: when the extension line busy, the call transferred to the operator attendant

ringing extension.

Above setting just for one paragraph OGM mode.

Format: 1655# when calling ext.busy, send prompt tone to the extension

2.6.4 Called Extension No Answer Process

Format: 166#

Description: when the called extension is no answer, the C.O. line will be cut off;

this is the default setting.

Format: 1660#

Description: when the called extension is no answer, the call transferred to operator.

Format: 166G#

Description: G=1-2 Extensions Groups series; when the called extension is no answer,

The system will call the G extension group.

Format: 1666#

Description: when the called extension is no answer, the call transferred to the operator

attendant ringing extension.

Above setting just be in effect in one paragraph OGM mode.

2.6.5 Directly ringing while play OGM Process in Auto-attendant Mode(CRBT)

In This is a new mode; allow you to call in form outside and hear OGM while the system directly to ringing the Assignmented extensions without dialing any extension numbers.

- II. You should set the C.O.line in Auto-attendant mode first.
- III. In the mode we suggest you record the OGM into one paragragh.

Format: 1 67 # this is default setting

Description: disable directly ringing extensions while playing OGM in auto-attendant mode.

Format: 1670#

Description: enable directly ringing extensions while playing OGM in auto-attendant

mode, and the ringing extensions is the first& the second operators

Format: 167G#

Description: G=1-2 Extensions Groups series; enable directly ringing extensions while

playing OGM in auto-attendant mode, and the ringing extensions is the G Exts.

Groups.



Format: 1676#

Description: enable directly ringing extensions while playing OGM in auto-attendant mode,

The system will call the operator mode Ringing Extensions.

2.7 Doorphone Function

The system offer up to door opener(door-open switch, connect with the wire of electron -controlled lock.) interfaces, and the system can define two extensions to be doorphone,

Note: base type offer only one door opener. The second door opener must order also if you order for boardcast function then the door opener will disalbe.

2.7.1 Doorphone Setting

Format: 80N# set the first doorphone (N is ext no.)

81N# set the second doorphone (N is ext no)

8000# clear the first doorphone

8100# clear the second doorphone

Default: not set doorphone

2.7.2 Doorphone Ringing Extensions Assignment

Format: 82#

Description: Clear all extensions assigned to the doorphones.

Format: 8 2 N#

Description: Assign Ext. N to be the ring extensions when the doorphone calling

NOTE:1. In default setting: Ext.601 &Ext.602 is assigned to all doorphone call either in day mode or night mode.

2. Maximun 8 extensions can assigned to the doorphones either in day mode or night mode.

2.7.3 Duration of Unlock Signal Setting

Format: 1 8 5 TT#

Explanation: TT = 01-99 opener action time is TT*0.1s

Description: Setting the door opener action time (the relay for door opener's shutting time).

Description: If you press * 1 to open the door, the unlock signal will be kept in a few seconds. You can set the duration of unlock signal to match your electron-controlled lock.

In default setting, TT=4, means 0.4s.



2.7.4 Operation Instruction

Operation1: Press the doorphone calling and press*1 to open the door lock.

Description: when visitor press the special door-phone, The extensions assigned to the doorphone will ringing, at this moment the door-phonewill be at the status of music on hold (if nobody answer after 25s, the system will send a busy tone to door-phone), you pick up the operator extension and can talk to the visitor. While the other ring Exts. will stop ringing.

- During talking with the doorphone ,the Extension input * 1 to open the door lock.
- 1. Each Extension can pick-up the call and open the door when the visitor press the door-phone
 - 2. When visitor press the special door-phone, If the extensions assigned to the doorphone are all busy at this moment, the system will send a busy tone to door-phone, in the mean time, the extensions will hear a du-du-du awaiting indication (but very short).
 - 3, the system should have 3 ringing tones available for different calls:
 - -one for the internal calls
 - -one for the doorphone call

-one for the C.O.line incoming calls

Operation2: directly open the door

Pick-up + # 78 then input *1 to open the door lock directly.

Pick-up + # 79 then input *1 to open the door lock directly.

Description: this function can be used only by Programming Extensions

2.8 Intelligent Routing select (LCR)

Intelligent Route select functions (Automatic least-cost routing (LCR) function), this functions will allow you to use the new &cheap communications network. The system has one models to execute this function:

Manual-select the least-cost routing model: when the user dial out, the system will select the least-cost routing accrding to the outgoing access-code.

The system will make the trunk line to two types: (trunk line=C.O. line)

Normal trunk line (C.O. line): normal Telecom trunk line

Special trunk line: it means the communications network of New telecom carriers / VOIP /



GSM / CDMA.....etc, which can offer the cheap rate for some international call, some domestic-long-distance-call.

2.8.1 Programming setting

The follows format should be in programming status:

Format: 0720#

Description: Routing function enable and the system In Manual-select the least-cost routing

model

Format: 0721#

Description: Routing function disable, also cancel the system In Manual-select the least-cost

routing model

Format: 0730#

Description: The system will go to the normal trunk line if the special trunk line is busy.

Format: 0731#

Description: Don't allow the system use the normal trunk line if the special trunk line is busy.

Format: 0732#

Description: The system will go to the special trunk line if the normal trunk line is busy.

Format: 0733#

Description: Don't allow the system use the special trunk line if the normal trunk line is busy.

Format: 0740#

Description: allow the normal trunk line outgoing & incoming.

Format: 0741#

Description: Don't allow the normal trunk line outgoing.

Format: 0750#

Description: allow the special trunk line outgoing & incoming

Format: 0751#

Description: Don't allow the special trunk line outgoing.

Setting the trunk line to Normal trunk line / Special trunk line

Format: 0760#

Description: all trunk lines are set as the Normal trunk line

Format: 076M#



Description: The trunk lines NO.M is set as the Normal trunk line (M=01-16)

Format: 0770#

Description: all trunk lines are set as the Special trunk line

Format: 077M#

Description: The trunk lines NO.M is set as the Special trunk line

Setting outgoing access-code for Special trunk line

Format: 078K#

Description: In Manual-select the least-cost routing model, setting outgoing access-code K for Special trunk line.

Remark: 1. K=1, 2.....8 (K can't be outgoing code 9 or 0)

2. K can't be same as the first digit of extension number

2.8.2 Operating instruction

- 1. Enable/Disable the CO.line
- 2. Setting the trunk lines to Normal trunk line / Special trunk line
- 3. Enable Routing function
- 4. In Manual-select the least-cost routing model, setting Outgoing access-code (K) for Special trunk line

then operating as follows:

In Manual-select the least-cost routing model

If the extension is in indirect dialing-out mode,

Use the Normal trunk line: Pick up the handset → Dialing 9 out → the calling number

Use the Special trunk line: Pick up the handset —→ Dialing K out —→ the calling number

If the extension is in direct dialing-out mode, PIs note: you must input* to enter the intercom status

Use the Normal trunk line: Pick up the handset _____ the calling number

Use the Special trunk line: Pick up the handset \longrightarrow input * \longrightarrow Dialing K out \longrightarrow the calling number



2.9 IP Dialing & Blacklist function

2.9.1 Enable/Disable IP Dialing function

Format: 8400# disable all exts. IP dialing

84N# disable ext.N IP dialing N=01-16

8500# enable all exts. IP dialing 85N# enable ext. N IP dialing

2.9.2 IP prefix Number Setting

Format: 83ABCD + off-hook

Description: ABCD---IP prefix number, the longest number is 60 digits, 0...9, # is the dialed number, * mean pause, one * mean pause 1s, can use more * to add waiting time.

Example: 1. IP prefix number is 17909, input 8317909+off-hook

2. 200 card IP number (guide number 200, voice number is 1, account 123456789#, password 1234#, that input 83200**123456789#91234#*, and then hang up). Note the IP number just can store into the system when hang up the phone.

2.9.3 Enable/Disable Blacklist function

Format: 8600# disable blacklist function

8601# enable blacklist function, process to sent busy tone to the caller.

2.9.4 Set/Clear Blacklist numbers

Format: 87KKABCD# set KK group blacklist number

87# clear all blacklist number setting
87KK# clear KK group blacklist number

Description: KK=1-16 groups, ABCD is the tel number (within 14 digits)

2.9.5 IP Dialing Operation

Two ways as below:

Auto dialing IP(indirect-dialing-out mode): off hook+area code + telephone number.
 Auto dialing IP(direct-dialing-out mode): off hook+* + area code + telephone number.

NOTE: allow you to dial outward calling number while the extension in indirect-dialing-out mode.

◆ Fast dialing IP: [*]+ # # ,after you hear the system dial the IP prefix number you can continue to dial area code + telephone number.



1. in this operation, the ext should be enable auto dialing IP function and the ext has long tel class.

2. dial non-IP and local phone, press 9 and then dial out .

2.9.6 Blacklist Operation

When the system received the blacklist number (total 16 groups), the system will hold back the calling and give the busy tone to the caller.

2.10 PC OGM Down Load

This system can record and play OGM by PC, and also download OGM into the system from PC.

Operation Steps:

- 1. Connect the external music on holding interface with PC earphone interface
- 2. Open the player of PC, and then prepare the voice file;
- 3.In the programming status, use programming extension input: 12M9#, and then play the voice file;
- 4.In the programming status, input 13M# to monitor the OGM.

Explanation: M: paragraph of the OGM ,when M=0 you can record OGM in one paragraph mode.

- 1. One time just can record one paragraph OGM
 - 2. Notice the time of playing PC OGM, can repeat it if the effect is not good.
 - 3. Recorded time can refer the user manual.

2.11 Wireless Terminal Board (for TS+ series)

TS+ serial can use the normal C.O. line expand to wireless inputing.