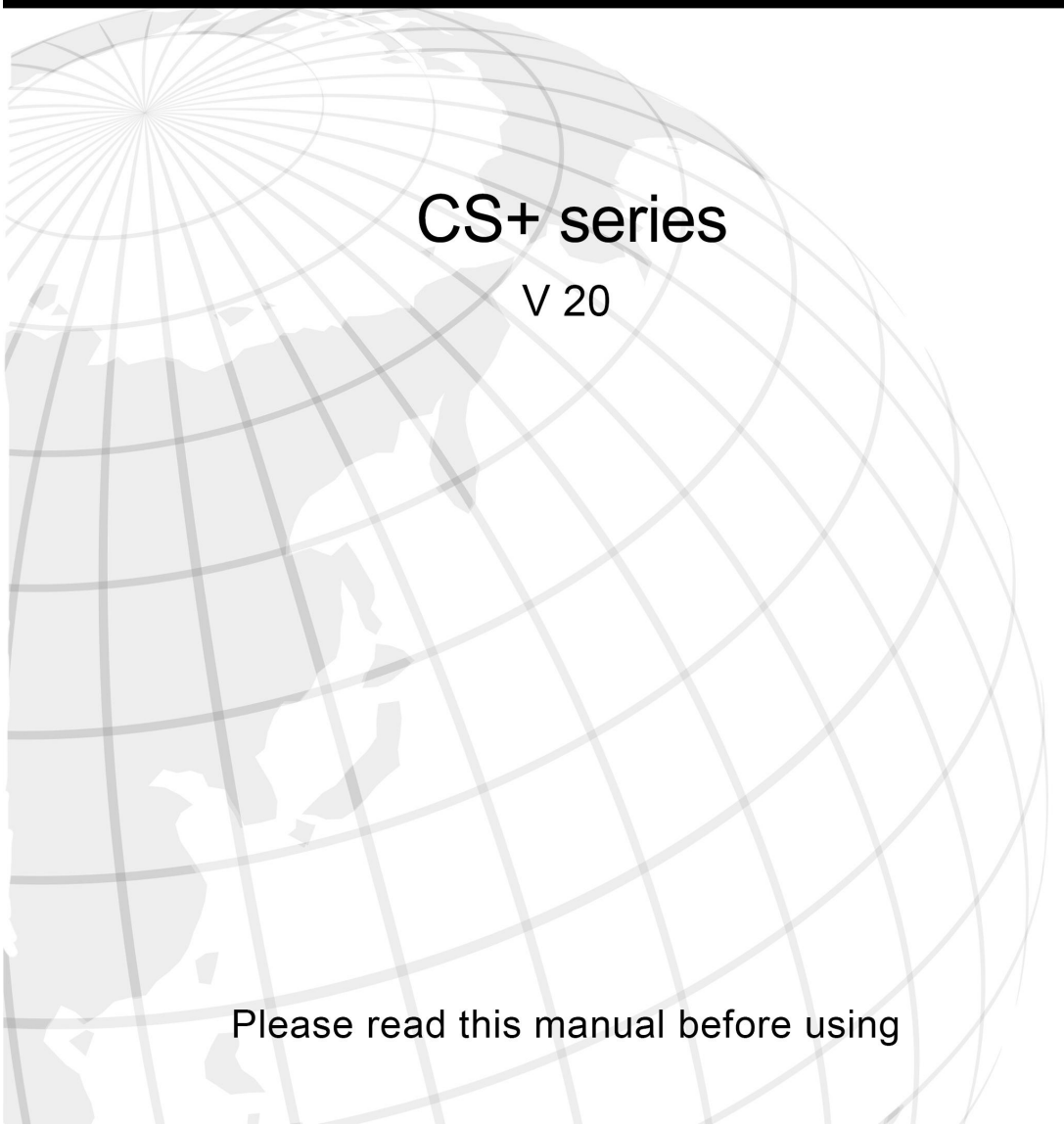
PABX

Private Automatic Branch eXchange

User's Manual



CS+ series

V 20

Please read this manual before using

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Chap 1 Brief Introduction & Features

1.1 System Overview

With the design and production according to G.712 and G.732 protocol of CCITT, this system integrates virtues of various practical function of PABX, and it has unique advantage in innovation. As a type of new generation with over 50 powerful functions for business and management, it has wide application in small business, like offices, small company…etc. In a word, it is an ideal equipment for customer to enhance communication condition, improve work efficiency, control toll expenditure, and make office intelligent come true.

1.2 Features

- Operator/Auto-attendant work mode
- OGM(Outgoing Message, DISA:180s)
- Caller ID(operator ringing extension, intercom, transfer)
- Call transfer
- Call forward
- Call pickup
- Call restriction
- C.O line booking
- C.O line reservation
- Ext number flexible coding
- Outgoing call transfer
- Internal hotline
- Music on hold
- Do not Disturb(DND)
- Multiple Dial out mode
- Three party conference
- Abbreviated dialing(Memory dialing)
- Extension Dynamic Lock
- Intelligent routing(LCR)
- Extension group
- Fast dial Ext. in OGM mode
- Remote programming
- Power failure transfer
- Programming can be made by normal phone, no need special operator key phone.
- Door phone & door opener
- Backup battery option

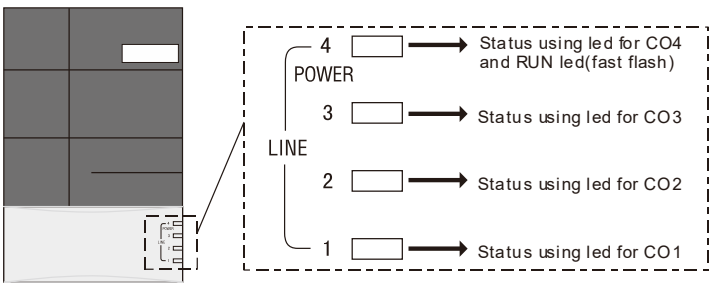
Chap 2 Installation & Connection

Before Installation

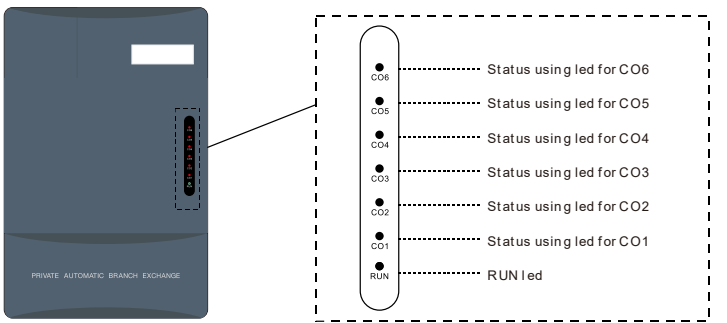
For easy and quick installation, it is strongly recommended that user read and follow the following instruction carefully so as not to damage the system accidentally by incorrect operation.

2.1 System Appearance

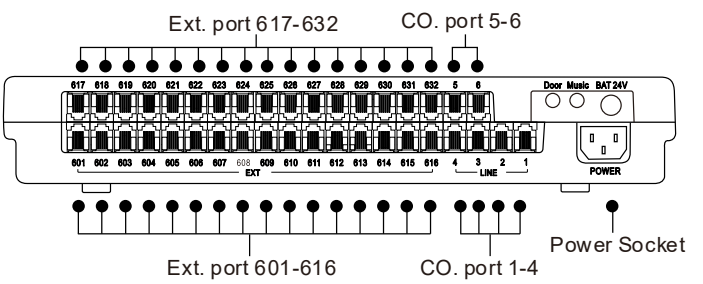
CS+208/308/416 Front view



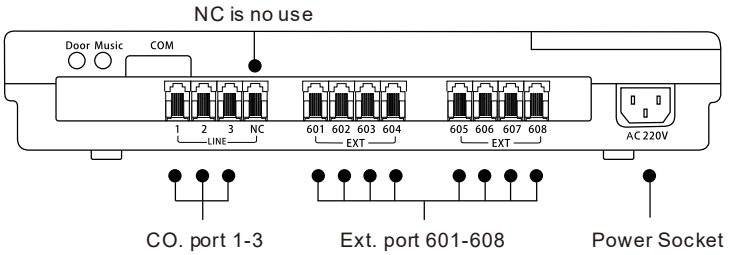
CS+632 Front View



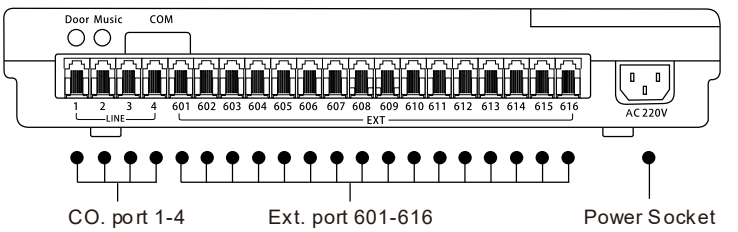
CS+632 Interface view



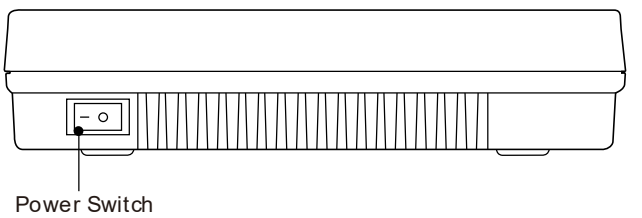
CS+208/308 Interface view



CS+416 Interface view



Side view



2.2 Technical Parameter

- Power Supply Voltage …… AC 220V or AC 110V, 50-60Hz
- Power Dissipation…… ≤20VA
- Exchange Mechanism…… Analog switch matrix
- Caller ID receiving mode……..DTMF & FSK
- Caller ID sending mode……DTMF & FSK
- Type of Telephone……Dual Tone Multi-Frequency
- Dial mode…….....Tone frequency signal
- Communications path……..7
- Feed on Ext port…….....DC38V 20-30mA

- IC Power Supply……±5V
- Distortion…… ≤10%
- Ringing Voltage …… AC 70V±10% 50HZ
- Internal dial tone……....380HZ Continuous square wave
- Internal ring back tone……....380HZ square wave 1s on, 4s off
- Internal busy tone……....380HZ square wave 0.3s on, 0.3s off
- Internal verification tone……....380HZ square wave 1s on
- CO line prompt tone……380HZ square wave 2s on, 5s off
- External music interface……Input voltage range 0.5V~2.0V
- CO line tone…….....depend on service provider

2.3 Attention

Please pay attention to the important items of installation:

● The telephone exchange shall be installed in a stable indoor place with dry, ventilated environment(Temperature Range: 0-45℃, Humidity Range: 20%-80%.Avoid straight sun shine or in the environment of flammable or caustic gas.) Special telephone wire is preferable.

● A marginal space around the exchange should be remained for heat sink, inspection and maintenance of the system.

● A wall bore is available at the underside of mainframe for wall installation. Desk installation is also admitted. But the contact of wall bolt and circuit board inside the mainframe should be avoided.

● Please keep the exchange away from other equipment producing large electromagnetic disturbance (such as motor and large transformer).

● None of the wiring of any extension should share the pipeline with power supply or antenna. Neither should the extension be close to antenna for air broadcasting (including short-wave).

● Avoid damaging the power-supply cable. Keep it away from water. Encountering the leakage of water cut off the power immediately.

● Please don't impact or shake the exchange at any situation. Don't remove the exchange in working status.

● If the wiring pipeline of the extension is disturbed by electromagnetic wave while substitution is unavailable in site, special insulating wire for communication is suggested for substitution, also, the insulating net of which should be grounded.

2.4 Warning

- The wiring should not be done in thundering.
- Avoid using telephone in thundering.
- Please don't use the telephone in flammable and leaking gas environment.
- Unless the equipment is disconnected, please don't touch the broken part of the wiring or

any connection ends.

◆ Note: Lightning stroke is an accident, which will not be regarded as warranty.

2.5 Installation procedure

2.5.1 Connecting C.O. lines & extensions to the unit:

- Please connect the RJ11 crystal head with EXT port and C.O port separately;
- Make sure to avoid short circuit.
- Connecting extensions according to the in-dilated extension positions and C.O. lines to the corresponding line ports on the unit.

2.5.2 Zero-load power-on inspection:

- The operation voltage of this product is AC220V or AC110V. Check out the voltage of local power supply. A UPS backup is highly recommended.
- Plug in the power supply line, indicating normal power supply and working state of the PBX.
- Pick up the handset of extension 601. If you can hear an internal dial tone indicates that the system is working normally. You can start to operate it now.

2.6 Direct Access when Power Failure

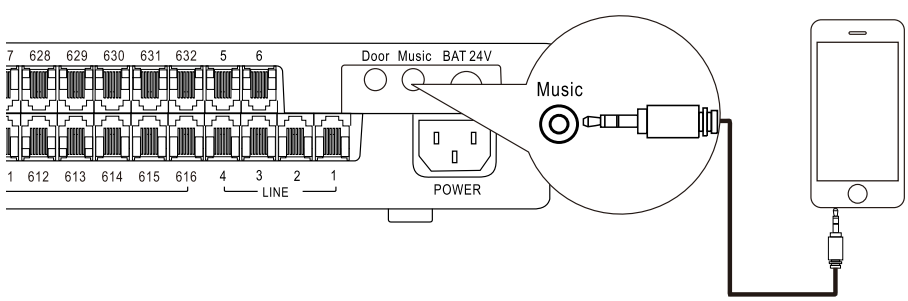
The C.O. lines will be connected directly to the specific Ext automatically when power is failure. The No.1 C.O. line will be connected to Ext. 601 and No.2 to Ext.602, No.3 to Ext.603, No.4 to Ext.604. So you can only use the four Ext as normal phone with direct C.O. line.

For example when someone call in with No.1 C.O. line when power is failure, the Ext.601 will ring, you can only pick up Ext. 601 and talk with the caller.

2.7 External Music Input on Holding

As the diagram on right, connect the external music with the system music interface.

Note: when connected with the external music, system switch to the external music on hold status automatically. If customer need to use internal music, please disconnect the external music, otherwise will be no music.



CS+632 on hold music connection

Chap3 System Programming

3.1 Before programming

- All the programming must be performed on the extension 601 or 602 or 603 or 604; all the programming must be carried out in programming status.
- All the extension must be dual tone multi frequency phone.
- You can programming one by one, and end the process by pressing #. You don't have to hang up if something wrong occurs, you could press * to restart.
- If programming extension(601,602,603,604)is in Direct-Dial-Out mode,you need to press * to enter internal status, then start programming.
- When the setting is finished, a long beep indicates that the setting is done correctly and saved in the system. If instead an array of short chirps is heard, that indicate an error occurred in the setting. You need to check and restart the setting. It is only after the end with the long beep you can continue with another operation step.

How to programming

At first you must enter into system programming status(details refer to 3.4.1 instruction).

3.2 Default Setting

- The system programming password: 0000
- Operating mode: All C.O. line is in Operator mode
- Dial out mode: Indirect-Dialing-Out mode, dialing "9" for outgoing call
- All CO. lines is disabled, the system use internal music.
- Operator: Ext 602
- Ringing Ext in operator work mode.: Ext 601 and Ext 602
- Day/night mode Extension service class assignment: 1
- Time Restriction: No
- Day/night mode:manual switching,day mode
- Flash time: 1000ms
- Day/night mode ext access C.O. line: all extensions
- Call Forwarding Settings will be saved when Power Failure
- Original EXT number: 601 to 632
- Restrict Item A / Item B: No setting
- Special Calling-out Number: No setting

3.3 Glossary

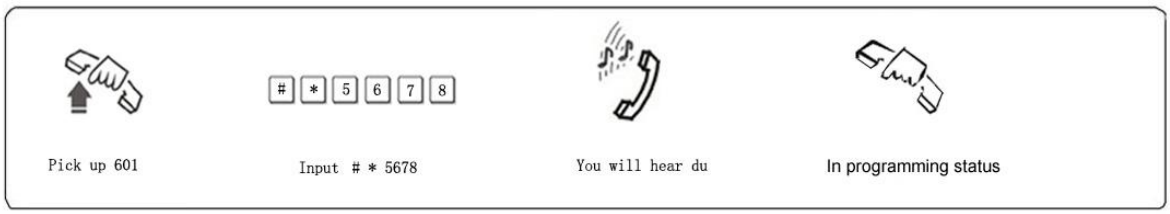
Programming extension	Extension No.601, 602, 603, 604
N	Series number of the extensions (01-32 with corresponding input ports 601-632) (two digits)
abcd	Number of the extension(1-8999,except for the digits with the first digit of 0 or 9, outward code of special trunk line, in equal length)is accordance with N.
M	Series number of the CO line (No.1-6 with corresponding input ports of Line 1- 6)
P	Licensed Group Number (01-16)
Q	First-digit restrict group number (01-16)
ABCD	Licensed or restricted number of first 1-4 digits
EFGH	4 digits of programming password
L	Service grade(Grade of private passwords or outgoing call),grade 0-6
TT	Time in minute for call duration control, ranges from (01 to 99)
F	Flash time class.

3.4 Basic Command

3.4.1 Enter into System Programming Status

Format: # * EFGH
Explanation: EFGH is the system password, default is 0000.

Example: To programming the system, you should input system password at first, if the password is 5678, you can enter into programming status as below:

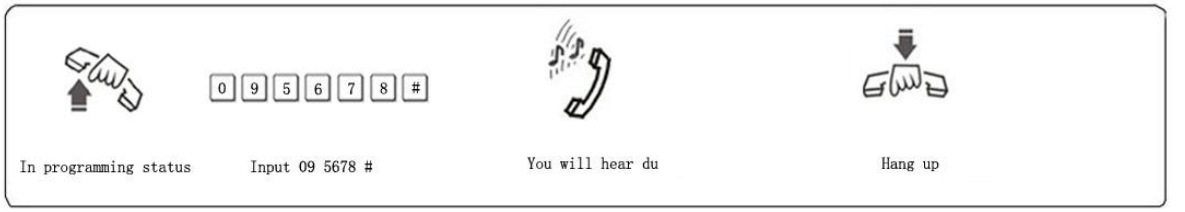


● When extension is in direct-dial-out mode, you should input * # * EFGH; on default setting, all extension is in indirect-dial-out mode.
● The default password is 0000, so you need to input #* 0000 at the first time.
● Programming Ext is EXT.601, or EXT.602, or EXT.603, or EXT. 604

3.4.2 Change the Password

Format: 09 EFGH #
Explanation: EFGH is the new system password.
Description: change the programming password.

Example: Change the system password from “0000” to “5678”



We suggest change the password before set up the system.

3.4.3 System Soft-Reset

Format: 0 9999999 #

Description: reset the system when the system is in power on status.

3.4.4 Flash time setting

Format: 00L #

L=1 ---------0.8s
L=2 ---------1.0s
L=3 ---------1.2s
L=4 ---------1.5s
L=5 ---------1.8s

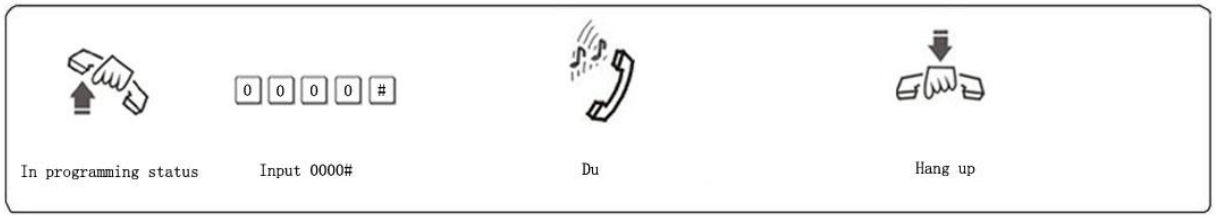
Explanation: L means the flash time.(L=1-5)
Description: To active the hold and transfer operating use.

● On default setting: L=2 (1.0s)

Example: Set the flash time to 1.2S,then in programming status input 003#.

3.4.5 System return to default setting

Format: 0000 #
Description: System will restore the default factory setting.



● This command has no influence on the status of enabling/disabling C.O. line.
● If customer need to restore the default extension number, input 9000#.

3.4.6 Set Delay time for outgoing call transfer

Format: 03TT #

Description: TT=01-99, unit is second; it means the time which is from finish dialing the last number to the system start to allow call transfer function, The system restriction time also from this time.
Default setting: Duration of time-delay being 5 seconds.

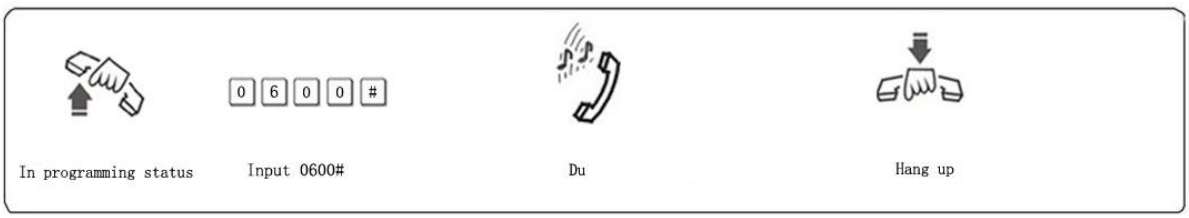
Example: Set delay time: 8s, then input 0 3 0 8# in programming status.

3.5 Enable/Disable C.O. Line

You must use these command according to the actual CO line connected before use the PBX. If you don't enable any C.O. line, system will define no C.O. line connected and will not auto detect C.O. line!

3.5.1 Enable All C.O. Line

Format: 0600 #
Description: Enable all C.O. lines



● On default setting: system is in CO line disabled status.

3.5.2 Disable All C.O. Lines

Format: 0610 #
Description: Disable all C.O. lines

3.5.3 Enable No. M C.O. Line

Format: 060 M #
Explanation: M: C.O. Line port No. M = 1 - 6
Description: Enable the No.M C.O. line

3.5.4 Disable No.M C.O. Line

Format: 061 M #
Explanation : M: C.O. Line port No. M = 1 - 6
Description : Disable the No.M C.O. line

3.5.5 C.O.line working assignment

Format: **0620 #**
Description: This setting make the system assign different CO lines working averagely, it means the system will access the CO line in circulating.(For example: the system will use CO line 1, then line2….line4 circulating). This setting can avoid user always use some trunk lines, this is default setting.

Format： 0621 #

Description: This setting make the system use CO line in sequence, it means the system always access CO line from 1~4 in sequence.

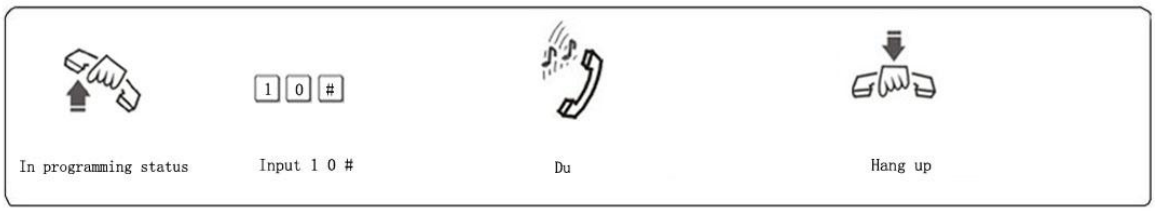
3.6 Set Operating mode

NOTE: On default setting, all the C.O. lines is in operator work mode , the operator ringing Extension is 601 and 602.

3.6.1 Set Auto-attendant work Mode (OGM) for All C.O. Lines

Format: 10 #

Description: Set all C.O. line in Auto-attendant work mode. In this mode, caller will hear the DISA message, while all extensions are in mute status.



● If caller doesn't know the extension number, he can inquire to the operator by dialing "0".

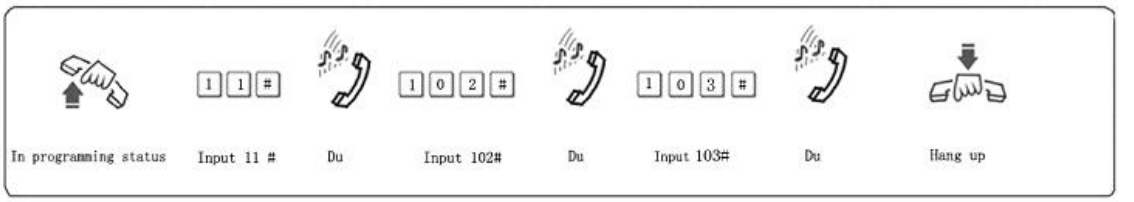
3.6.2 Set Operator work mode for all C.O. Lines

Format: 11 #
Description: Set all C.O. lines in operator work mode. In this mode, the operator extension and other ringing extensions will ring when an incoming call is received.

3.6.3 Set Auto-attendant Mode (OGM) for Certain C.O. line

Format: 10 M #
Explanation: M: C.O. line No. M=1-6
Description: Set No.M C.O. lines in Auto-attendant work mode

Example: Set C.O. line 2 and 3 in Auto-Attendant work mode, the other C.O. line in operator work mode.



● If caller doesn't know the extension number, he can inquire to the operator by dialing "0"..

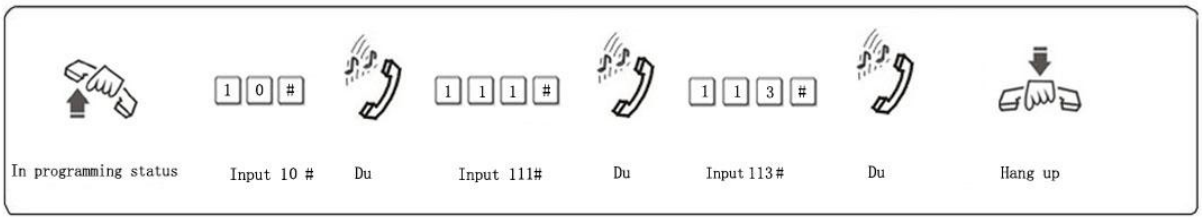
3.6.4 Set Operator work mode for Certain C.O. line

Format: 11 M #

Explanation: M: C.O. line No. M=1-6

Description: Set No.M C.O. line in Operator work mode.

Example: Set C.O. line 1 and 3 in operator mode, other C.O. line in Auto-attendant mode.



3.6.5 Enable/Disable fast dialing in OGM mode

Format: **1546 #** Disable fast dialing function, this is default setting
1547 # Enable fast dialing function.
15470 # Not allow dial ext. Number in fast dialing mode
15471 # Allow dial ext. Number in fast dialing mode
1548 # Disable fast dialing Ext group function
1549 # Enable fast dialing Ext group function

Description: when this function is enabled, in auto attendant mode, caller dial 1 to ext. 601, dial 2 to ext. 602, dial 3 to ext. 603…… dial 9 to 609, dial 0 to operator ext.

3.6.6 CRBT (Directly ring while play OGM Process in Auto-attendant Mode)

NOTE: ◆This function allow the outside caller hear OGM while the system directly ring extension without dialing any extension numbers.

- ◆ You should set the C.O.line in Auto-attendant mode at first.
- ◆ In this mode we suggest you record the OGM in one section.

Format: **167 #** this is default setting
Description: Disable CRBT function.

Format: **1670 #**
Description: Enable CRBT function, ring operator when C.O line call in.

Format: **1671 #** to ring the first Ext. Group

Format: **1672 #** to ring the second Ext. Group
Description: Enable directly ring extensions while playing OGM in auto-attendant mode,and the ringing extensions is the Ext. Groups.

Format: **1676 #**
Description: Enable CRBT function, ring operator ringing extension when C.O line call in.

3.7 Auto attendant setting

Auto-attendant, CRBT both use voice message. This system is built in 1 channel auto-attendant, including prerecorded voice and self-recording voice:

Prerecorded voice: system inbuilt voice message (notes: it is fixed, can not be changed).

Self-recording voice: customer can record the OGM by themselves, the total time length is 180s, can be divided into 4 section (the first section is 90s, the others sections is 30s)

3.7.1 Set auto-attendant in day/night mode

Format: **0440 #** Auto-attendant is enabled in both day and night mode, this is default setting

0441 # Auto-attendant is enabled in day mode, but disabled in night mode

0442 # Auto-attendant is enabled in night mode, but disabled in day mode

If day/night mode is not enabled, then no need to use above code

3.7.2 Prerecorded voice

Section 1: “Hello, welcome to call our company, please dial extension number or dial 0 for inquiry”

Section 2: “Sorry, the extension you dialed is busy, please dial other extension number or call later, thank you!”

Section 3: “Sorry, the extension you dialed is not answered, please dial other extension number or call later, thank you!”

Section 4: “Sorry, now it’s off duty time, please call again during our work time, thank you!”

3.7.3 OGM paragraph setting

Format: 045 X #

Notes: X=1-4

When X=1, OGM is in one paragraph mode, when C.O line call in, system only play one paragraph OGM, that is the first section greeting message

When X=2, OGM is in two paragraph mode, when C.O line call in, system will play different OGM in day and night mode, that is section 1 and section 4 message

When X=3, OGM is in three paragraph mode, when C.O line call in, system will play 3 section OGM, that is section 1, section 2 and section 3

When X=4, OGM is in four paragraph mode, when C.O line call in, system will play the first 3 section message in day mode, and play Section 4 message in night mode

3.7.3 OGM Self Recording

Format: 12 M #

Description: to record the voice message by programming extension.

Format: 12 M 9 #

Description: to download the OGM through external music player

Format: 13 M #

Description: to monitor the recorded voice by programming extension.

(M=1-4, is the numbers of OGM paragraph)

Notes: After self-recording the paragraph M message, then paragraph M voice becomes the self-recording state. For example, only 121# was used to record the first paragraph OGM, and the other paragraphs are not recorded by themselves; then when C.O line call in, the caller will hear the voice you recorded, and the other paragraphs are the prerecorded voice.

3.7.4 OGM Download from PC

You can record the OGM by PC, and download OGM into the system from PC.

Operation Step:

1.Connect the external music on holding interface with PC earphone interface
2.Open the player of PC, and then prepare the message 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.

3.7.5 OGM Play and volume adjustment

Format: # 6800 # Play the prerecorded voice

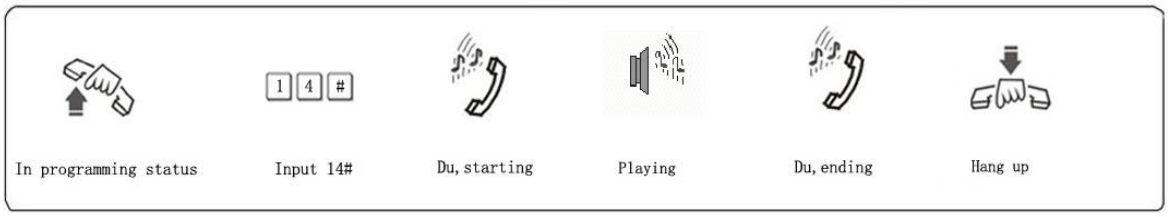
Format: # 6801 # Play the self-recorded voice

Format: # 6802 # Play the voice according to the current self-recorded and prerecorded status. This command can check how many paragraphs of the current voice are, which paragraph is self-recorded, and which paragraph is prerecorded.

Format: **# 68 X #** Adjust the voice volume, X=1-6, default X is 4. The higher the value, the louder the volume.

3.8 On Hold Music

Format: 14 #
Description: Play the on hold music or test the quality of telephone unit.



Format: 177 #
Description: Set ring back tone as on hold music
Format: 176 #
Description: Set piano music as on hold music

3.9 Set Operator and Ringing Extension

3.9.1 Set Operator

Format:: 15 N #
Explanation: N: the Ext. port No., N=01-32
Description: To assign any Ext as the operator. On default setting, Ext 602 is the operator.
Example: Set Ext.602 as operator, then input 1502#.

3.9.2 Set Ringing Extensions in Day mode

Format : 30 M N 0 #
Explanation: M: the C.O. Line port No. M=1 - 6
N: the Ext. port No. N=01-32(N=1 means Ext.601 ····· N=32 means Ext.632)
Description: In operator work mode when incoming call from No.M C.O. line arrives and system in day mode(on default setting system in day mode), No. N Ext. will ring.

On default setting only Ext601, 602 will ring.

Format: 30 M N 1 #
Description: Disable No. N Ext. ring when incoming call from No. M C.O. line arrives.

Format: 30 M #
Description: Disable all Ext ring when incoming call from No. M C.O. line arrives.

Example: Set Ext.605 and Ext.607 and EXT.608 ring when call from C.O. line 2 arrives while the system in day mode, then input 302#, 302050#, 302070#, 302080#.

Note: Only the first 16 extension can be set as ringing extension

3.9.3 Set Ringing Extension in Night mode

Format : 31 M N 0 #
Description: In operator work mode when incoming from No. M C.O. line arrives and system is in night mode, Ext N will ring.

● On default setting only Ext 601, 602 will ring.

Format : 31 M N 1#
Description: Disable No. N Ext. ring when incoming call from No.M C.O. line arrives while system in night mode.

Format : 31 M #
Description: Disable all Ext ring when incoming call from No.M C.O. line arrives while system in night mode.

Example: Set Ext.603 and Ext.605 ring when incoming call from C.O. line 2 arrives while the system is in night mode, then input 312#, 312030#, 312050#.

Note:
- You can set up to 8 Ext ring at the same time for one C.O. line while system in either day or night mode, that mean you can repeat to input 30MN0# or 31MN0# for 8 times.
- Before you set certain ringing extension, we suggest you'd better disable all the Exts ring for this C.O. line.
- This function must be set in Operator work Mode.
- This function only for C.O. line Incoming call.

Note: Only the first 16 extension can be set as ringing extension.

3.9.4 Set C.O. line ringing mode

Format : **380 #** Set all the C.O line ring in normal mode (operator ringing extension will ring simultaneously, this is default setting)
381# Set all the C.O line ring in round robin mode (operator ringing extension will ring one by one)
381M# Set C.O line M in round robin mode
499TT# Set the ringing time in round robin mode (TT=01-99, unit is second, default TT=10, that is 10s)

Description: When C.O line is in round robin ring mode, the incoming call will ring operator ringing extension one by one. For example, the default operator ringing extension is 601 and 602, the call will ring 601 at first, after 10s, will ring 602.

3.9.5 Process mode when all ringing extensions is busy

Format: 1880 #
Description: When C.O.line incoming call arrives, and all the ringing extensions assigned to C.O. line is busy, system will send prompt beep tone to the ringing extensions every five seconds. this is default setting.

Format: 1881 #
Description: When C.O.line incoming call arrives, and all the ringing extensions assigned to C.O. line is busy, instead of sending prompt beep tone, the system will search the first available extension from Ext. 601 to Ext. 608 in sequence then ring it.

Format: 1882 #
Disable sending prompt beep tone when ringing extension is busy

Format: 1883 #
Enable sending prompt beep tone when ringing extension is busy

Note: This setting is only valid when system is in operator work mode

3.10 C.O.Line Call Process in Auto-attendant Mode

3.10.1 OGM busy Process in Auto-attendant Mode

Format: 1540 #
Description: when CO line incoming call arrives and OGM is busy, then the call is in waiting status(no extensions ring),this is default setting.

Format: 1541#
Description: when multiple CO line incoming call arrives, as this system only has one channel OGM, you can set some call is in waiting status, some call ring operator ringing extension.

3.10.2 No dial Process in Auto-attendant Mode

Format: 160 #
Description: In auto-attendant mode, if the C.O. Line caller doesn't dial any extension number over 5 seconds, then the C.O. line will be cut off. This is the default setting.

Format: 161 #
Description: In auto-attendant work mode, if the C.O. Line caller doesn't dial any extension number over 5 seconds, then the C.O. line will be transferred to operator or the Ext.Group.

3.10.3 Called Extension Busy Process

Format: 165 #
Description: In auto-attendant work mode, if the C.O. Line caller dial some extension, but it is busy, then the CO line will be cut off, this is the default setting.

Format: 1650 #
Description: when the called extension is busy, the call will be transferred to operator.

Format: **1655 #**
Description: when called ext.busy, send prompt beep tone to the extension.

Format: **1656 #**
Description: when the called extension is busy, the call will be transferred to operator ringing extension.

Note: Above setting is just valid for one section OGM mode.

3.10.4 Called Extension No Answer Process

Format: **166 #**
Description: when the called extension no answer, the C.O. line will be cut off; this is the default setting.

Format: **1660 #**
Description: when the called extension no answer, the call will be transferred to operator.

Format: **1666 #**
Description: when the called extension no answer, the call will be transferred to the operator ringing extension.

Note: Above setting is just valid for one section OGM mode.

3.11 Caller ID Setting

3.11.1 Add Digits for Intercom CID

Format: 180 KK #
Description: Add KK in intercom Caller ID number

Remarks: Some telephone can not display the caller ID number less than 4 digits, so we need to add some prefix digit.

● On default setting: KK=00, CID number will add two digit 00.

Format: 180 #
Description: Disable add digits for intercom Caller ID.

3.11.2 Caller ID mode(format) setting

Format: **1810 #** Set the CID number transmit as FSK mode, it is default setting.
1811 # Set the CID Number transmit as DTMF mode.
1814 # Set the CID Number-receive as auto mode, it's default setting for receiving.
1815 # Set the CID Number-receive as Dual modes always.

Note: The system can auto select C.O. line CID mode.

3.12 Dial-out Mode Setting

3.12.1 Set Indirect-Dial-Out Mode for All Ext

Format: 21 #
Description: Set Indirect-Dial-Out mode for all Ext(dialing 9 for outgoing).

3.12.2 Set Indirect-Dial-Out Mode for Certain Ext

Format: 2 N 1 #
Explanation: N: the Ext. Port No., N = 01 - 32
Description: Indirect-Dial-Out mode for Ext. N (dialing 9 for outgoing).
Example: Set Indirect-Dial-Out mode for Ext.608, in programming status, input 2081#.

Note: On default setting, this system is in Indirect-Dial-Out mode.

3.12.3 Set Direct-Dial-Out Mode for All Ext

Format: 20 #
Description: Set Direct-Dial-Out mode for all Ext(dial outgoing number directly)

3.12.4 Set Direct-Dial-Out Mode for Certain Ext

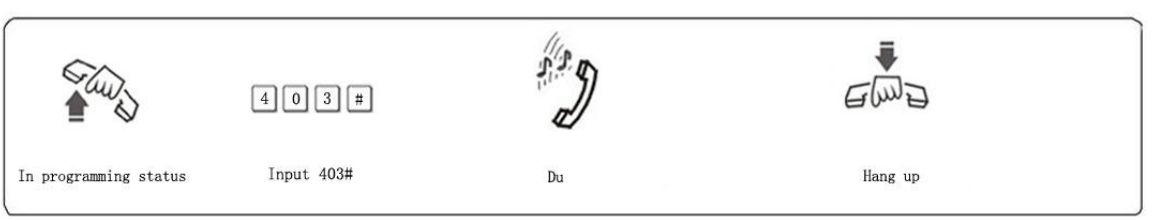
Format: 2 N 0 #
Explanation: N: the Ext. Port No., N = 01 - 32
Description: Set Direct-Dial-Out mode for Ext.N.
Example: Set Direct-Dial-Out mode for Ext.607, in programming status, input 2070#

Note:
- In Direct-Dial-Out mode, extension should dial * + Ext number for intercom call.
- No need to dial 9 for outgoing call.

3.13 Call Restriction Class Setting

3.13.1 Class Setting for All Extensions

Format: 40 L#
Explanation: L: Class number, L= 0 - 6
Description: Set dial-out class L for all Exts.
L=1: no any restriction
L=2: outgoing with restriction of IDD(International Direct Dialing)
L=3: outgoing with restriction of DDD(Domestic Direct Dialing)
L=4: outgoing with restriction of the prefix item A.
L=5: outgoing with restriction of the prefix item B.
L=6: only for intercom call.
L=0: only for some special outgoing number
Example: Set call class 3 for all extensions.



● On default setting, the class for all extensions is 4.

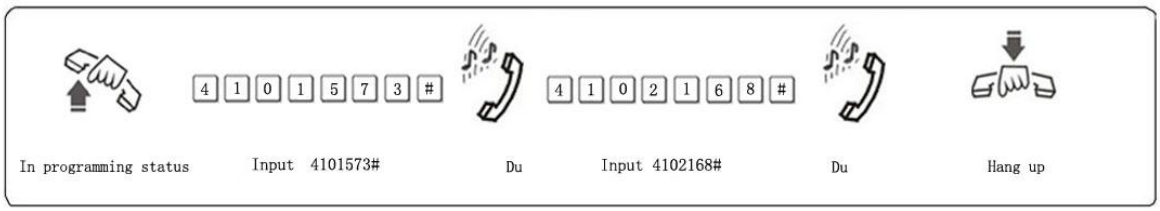
3.13.2 Set Call Class for Certain Extension

Format: 40 N L#
Explanation: N: the Ext. port No., N = 01 - 32
L : Class number, L= 0 - 6
Description: Set dial-out class L for certain Ext. N
Example: Set class 3 for Ext.606, then input 40063#

3.14 Call Restriction Item

3.14.1 Set Restriction Item A

Format: 41 Q ABCD #
Explanation: Q: the group series from 01 to 16.
ABCD: the prefix digits of the outgoing number to be restricted, it can be from 1-digit to 4-digits, it should be ended with # if less than 4-digits.
Description: to restrict the outgoing number start with ABCD.
Example: Ext.608 is set in dial-out class 4, now you want Ext.608 can't dial the numbers with initial digits – 573,168.

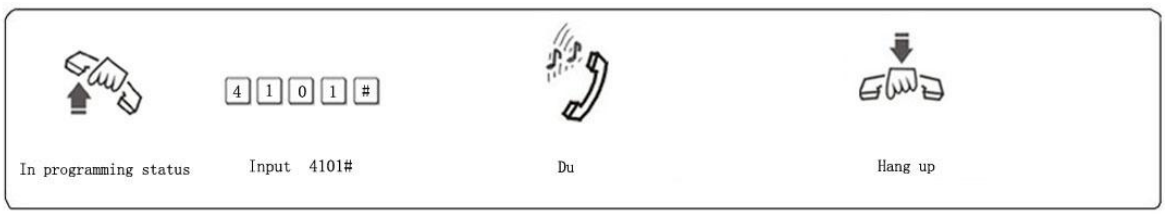


Note: ● Item A can restrict 16 groups of initial digits.
● Restrict Item A only valid for dialing-out class.

3.14.2 Clear Restriction of Item A

Format: 41 Q #
Explanation: Q: the group series from 01 to 16.
Description: clear the outgoing restriction of numbers in group Q.

Example: you want to clear the outgoing restriction of numbers with initial digits—573 of group 01



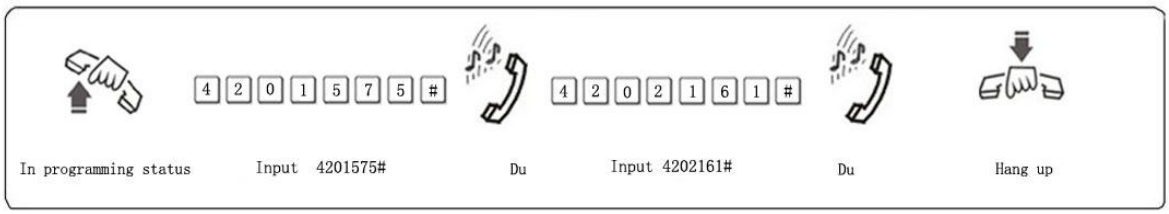
3.14.3 Clear All Restriction of Item A

Format: 41 #
Description: clear all the outgoing restriction numbers of item A

3.14.4 Set Restriction Item B

Format: 42 Q ABCD #
Explanation: the prefix digits of the outgoing number to be restricted, it can be from 1-digit to 4-digits, it should be ended with # if less than 4-digits.
Q: the group series from 01 to 16.
Description: to restrict the outgoing number starting with ABCD

Example: Ext.606 is set in dial-out class 5, now you want Ext.606 can not dial the numbers with initial digits – 575,161



Note: ● Item B can restrict 16 groups of initial digits.
● Restrict Item B is only valid for dialing-out class 5.

3.14.5 Clear Restriction Group of Item B

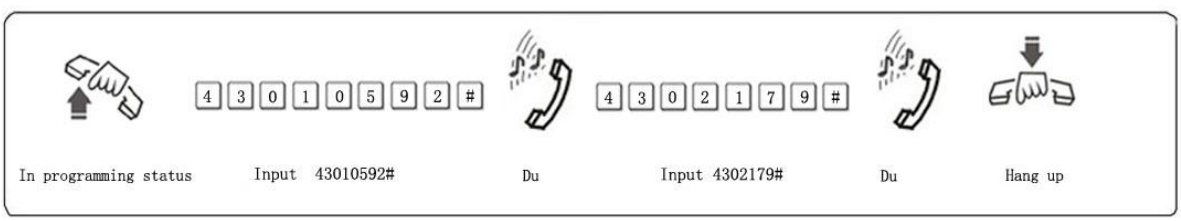
Format: 42 Q #
Explanation: Q: The group series from 01 to 16.
Description: clear the outgoing restriction of numbers in group Q.

3.14.6 Clear All Restriction of Item B

Format: 42 #
Description: clear all the outgoing restriction of item B

3.15 Set Special Outgoing Number for Class 0

Format: 43 P ABCD#
Explanation: ABCD: the prefix digits of the outgoing number to be restricted, it can be from 1-digit to 4-digits, it should be ended with # if less than 4-digits.
P --- The group series from 01 to 16.
Description: Allow to dial the number starting with <ABCD> only.
Example: Ext.605 is set in class 0, now you want Ext.605 can dial the number with initial digits – 0592,179



Note: ● This function is only valid for dial-out class 0.
●16 groups of initial digits can be set.

3.16 Call Duration Restriction Setting

Format: 6 N TT #

Explanation: N: the EXT port No. (N = 01 – 32)
TT: the duration restriction(2 digits), TT=01-99(minutes)
Description: set the Ext N outgoing call duration within TT minutes. This function can only restrict the duration of outgoing call.
Example: Set Ext.604 outgoing call duration within 8 minutes, then input 60408#

Format: 6 N 00 #
Explanation: N : the EXT port No. (N = 01 - 32)
Description: Clear the Ext N outgoing call duration restriction.
Example: Clear the Ext.604 outgoing call duration restriction, then input 60400#

3.17 Ext Access C.O.Line Priority

3.17.1 Set Ext Access Certain C.O. Line in day mode

Format: **70 M N 0 #** Set extensions N access C.O line M in day mode.
70 M 0 # Set all extension can access C.O line M in day mode.
70 M 1 # All extensions can not access C.O line M in day mode.
70 M N 1 # Restrict EXT.N to access C.O line M in day mode.
70 N 2 # Set EXT. N can access all C.O.line in day mode.
70 N 3 # Restrict EXT.N can access all C.O.lines in day mode.

3.17.2 Set Ext Access C.O.Line in night mode

Note: If day/night mode is not enabled, you don't need to do this setting.

Format: **71 M N 0 #** Set extension N access C.O line M in night mode.
71 M 0 # Set all extension can access C.O line M in night mode.
71 M 1 # All extension can not access C.O line M in night mode.
71 M N 1 # Restrict EXT.N to access C.O line M in night mode.
71 N 2 # Set EXT. N can access all C.O.line in night mode.
71 N 3 # Restrict EXT.N can access all C.O.lines in night mode.
Explanation: M: C.O. Line port No, M =1-6. N: the Ext. port No., N =01-32.
Description: This functions allow you to assign certain CO line exclusively be accessed by certain extension for outgoing call and other extension can not use it.

3.18 Ext Number Flexible coding

3.18.1 Set Extension Number(Change the Ext. Number)

Format: **9 N abcd #** Change a single extension number
900 abcd # Change extension numbers in batches, starting with abcd, add 1 in turn.
Explanation: N : the extension port number, N = 01 - 32
abcd: the new Ext. number, 1 to 4 digit.
Description: Change old Ext number to new Ext number "abcd"
Example: Change Ext 606 to 806, then input 906806#.
Note: ●The new Ext.number range from 1-8999; all numbers can not be in duplicate.
● The number can not begin with 0 and 9, and can not use the same numbers of two Ext.Group.
● The length (digits) of new number must keep the same; All the new numbers should

be equal digits, and not in duplicate.

● For example, to set the extension number in 4-digit(8001-8032), you need to dial 9018001#, then 9028002#, 9038003#…one by one, up to 9168032#.

3.18.2 Restore to Original Extension Numbers

Format: 9000 #
Description: Restore Ext number to the default setting, that is: from 601 to 602 603… 632 one by one etc.

3.19 Ringing/Transfer/Reservation time

3.19.1 Internal Call Ringing Time

Format: 494 TT #
Explanation: TT: seconds 01-99, default setting is 30seconds
Description: When one extension call another extension, and the called extension is not picked up, system will continue to ring it with this setting time.

3.19.2 Call Transfer Ringing Time

Format: **496 TT #**
Explanation: TT: seconds 01-99, default setting is 25seconds
Description: When transfer a call or incoming call in OGM mode and caller dial some extension number, then the system will ring the called extension with this setting times

3.19.3 No Answer Call forward Time

Format : **184 TT #**
Explanation: TT: seconds 01-99, default setting is 20 seconds
Description: When C.O line incoming call ring some extension, but no answer, after TT seconds, the call will be forwarded to another extension.

3.19.4 C.O Line Reservation Time

Format : **186 TT #**
Explanation: TT = 01-31 reserved time is TT * 10 s
Description: Set C.O. line reservation time when Ext. hold the call.
● On default setting, TT=12, so the reservation time is 120s.

3.20 Transfer Operation Setting

3.20.1 External Call Transfer Mode

Format: 1886 #
Description: During call transfer, after flash hook, if transfer extension doesn't dial number within 5 second, will reconnect with C.O line again. Or if transfer extension dial a wrong number or dialed extension is busy, system will send 3 busy tone, then reconnect C.O line.

Format: 1887 # (this is the default setting)
Description: During call transfer, after flash hook, if transfer extension doesn't dial number, system will hold the C.O line until flash hook again to reconnect it. Or if transfer extension dial a wrong number or dialed extension is busy, system will send 10 busy tone, then transfer

extension can flash hook again to reconnect with C.O line.

3.20.2 Extension No Answer Process for External Call Transfer

Format: **162 #** Call back the extension, this is default setting
163 # Not call back
Description: If the call back extension is busy, system will release the C.O. line.

3.20.3 Enable/disable Call Forward Setting reserved when Power Failure

Format: **170 #**
Description: Call forward setting will lose when power failure.

Format: **171 #**
Description: Call forward setting will be stored when power failure (system default setting)

3.21 Ext. Group Setting

3.21.1 Set Ext. Group Number

All the extension can be set in 2 groups.

Format: 990 abcd #
Description: set the first group number and enable it.
Format: 991 abcd #
Description: set the second group number and enable it.
Note: ● The length of Ext group number should be the same with the first extension number
● Ext group number should be different with the other extension number

3.21.2 Add members in Ext. group

Format: 390 #
Description: to delete all extension members in the first group.

Format: 390 N1 N2 ··· NR * NS .. NT #
Explanation: N1, N2, NR, NS, NT: the Ext. port No(N= 01-32 means ext 601-632) Description: In the first group join the Ext.N1 ,Ext.N2...Ext.NT, and from Ext. NR to Ext.NS is in sequence member.
Example: Add Ext.601, Ext.602, Ext.605 ···to Ext.608(include Ext.608) in sequence as members of the first group, then input 390 01 02 05 * 08 #. After by this setting, when you dial the group number, Ext.601, Ext.602, Ext.605 ...Ext.608 will ringing at the same time.

Format: 391 #
Description: to delete all extension members in the second group. Format: 3 9 1 N1 N2 ··· NR * NS .. NT #
Description: In the second group add Ext.N1 ,Ext.N2...Ext.NT, and from Ext.NR to Ext.NS is in sequence member.

3.21.3 Set the Ext. Group work mode

Format: 168 #
Description: Set the Ext. group in meeting mode.
Explanation: when Ext. group is in meeting mode; If some extension call this group, all the members in this group will ring simultaneously, each extension can pick up the handset to talk

with the caller, while the other extension keep ringing. This is also a conference function.

Format: 169 #
Description: Set the Ext group in normal call mode.
Explanation: when Ext group is in normal call mode;If call this group, all the members in this group will ring simultaneously, each extension can pick up the handset to talk with the caller, if any extension answer the call, the other extension will stop ringing.
● Default setting is normal call mode.

Chap 4 Operating Instruction

4.1 Day/Night Work Mode Setting(Manual mode)

Format: **# 20** Set the system in day work mode.
 # 21 Set the system in night work mode.

NOTE: ● On default setting, system is in day work mode.
●This setting can be only performed by programming extension(Ext.601, 602, 603, 604), no need to enter in programming status.
●If Ext.is in direct-dialing-out mode, you need to dial *#20 or *# 21.

4.2 Set & Clear other Ext. Call forward through Programming Extension

You can set other Ext. call forwarding through Programming Extensions

Format:
 # 26 N abcd Set No.N Ext. always forward incoming call automatically to Ext.abcd
 # 26 N # Clear always forward setting for No.N Ext.
 # 26 # Clear always forward setting for all Ext.
 # 27 N abcd Set No.N Ext. forward incoming call to Ext.abcd when No.N Ext. is busy or no answer after 30 seconds(call forward time,refer to 3.19.3)
 # 27 N # Clear busy(or no answer)forward setting for No.N Ext.
 # 27 # Clear busy (or no answer) forward setting for all Ext.
 # 25 # Clear any call forward setting for all Ext no matter always forwarding setting or busy(no answer).

Explanation: "abcd" is the Ext number to be forwarded, abcd=601– 632(default number) N: Ext. port No ,N=01-32 (N=01 means Ext.601… N=32 means Ext.632)

4.3 Outgoing Call

4.3.1 Outgoing Call Dial 9 at first (or Dial Directly)

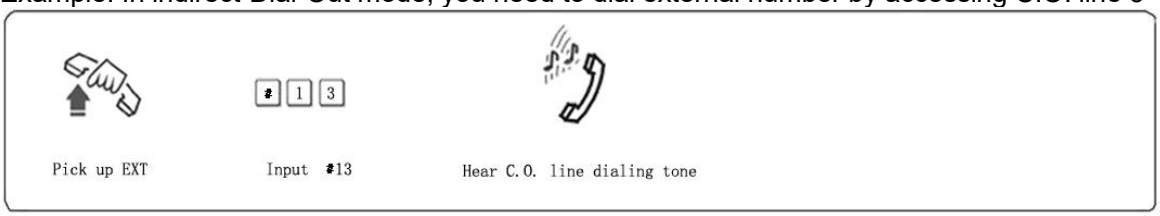
Format: Pick up the handset and dial 9 at first after hear internal dial tone, then dial the desired number after hear the C.O line dial tone.
Description: When Ext is in indirect-Dialing-Out mode, you will hear internal dial tone after pick up the handset, dial 9 then you access the C.O. line, you can dial the number after hear C.O line dial tone.
Example: You want to call the external number 80129876 in indirect-Dial -Out mode



☞ ● You need to dial 9 within 15 seconds after hear internal dial tone.
● If Ext. is in direct-Dial-Out mode, you can pick up the handset and dial number directly after hear C.O. Line dial tone. In this situation you can redial the last dialed number.

4.3.2 Outgoing Call by Accessing C.O Line

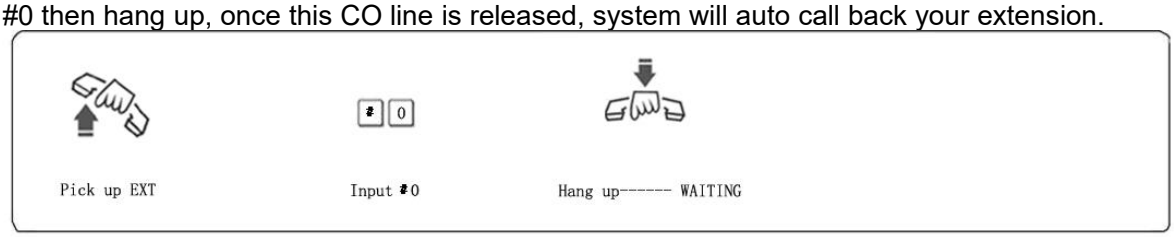
Format: # 1 M (Indirect-Dialing-Out mode).
Explanation: M: C.O. line port number(M = 1 -3)
Description: You can choose certain C.O line to make outgoing call.
Example: In indirect-Dial-Out mode, you need to dial external number by accessing C.O. line 3



● If the Ext is at Direct-Dial-Out mode, you should input: * # 1M.

4.3.3 Automatically Call back when CO line is busy

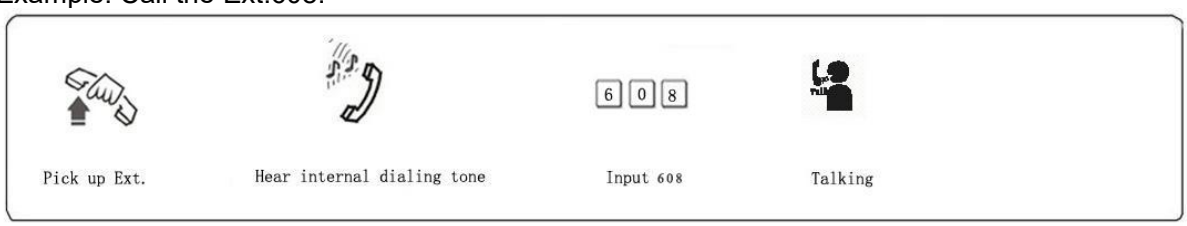
Format: # 0 then hang up.
Description: in indirect-Dial-Out mode, if the CO line you are accessing is busy, you can press #0 then hang up, once this CO line is released, system will auto call back your extension.



4.4 Intercom Call

4.4.1 Intercom Call in Indirect-Dial-Out Mode

Format: If Ext. is in Direct-Dial-Out mode, pick up handset and dial 9 at first after hear internal dial tone, then Dial the Ext. number directly.
Example: Call the Ext.608.



● Call is free of charge. Intercom ringing time can be set.

4.4.2 Intercom Call in Direct-Dial-Out Mode

Format: ＊ + Ext number
Example: Call Ext.608, then you should input * 608

4.5 Answer call

4.5.1 Answer Call in Operator Work Mode

When C.O line incoming call arrives, if system is in operator work mode, the operator ringing extension will ring, when you pick up the handset, you can talk with the caller directly. On the default setting, Ext.601 and Ext.602 are operator ringing extension.

4.5.2 Answer Call in Auto-attendant Work Mode.

The system is built in three section of OGM message(20s as standard), caller will hear the message in follows situations:

A. when external caller call the C.O. line.
B. when the extension dialed is busy.
C. when the extension no answer.

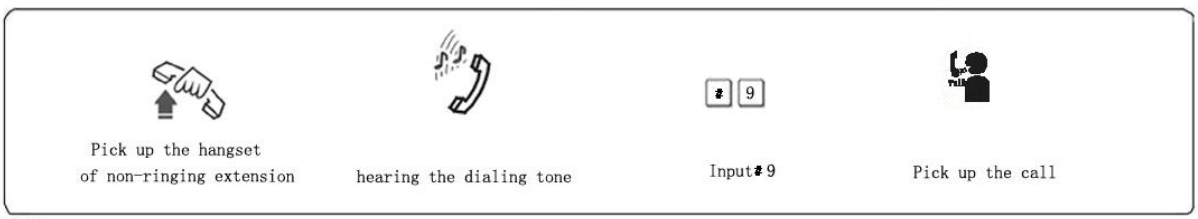
Before you use auto-attendant function, you must follow below step:

1. Set the CO.line in auto-attendant work mode.
2. Enable auto-attendant in day/night mode.
3. Setting the OGM section mode;then Record the OGM and review the OGM.
4. Setting system day/night mode.
5. Enable\disable OGM fast dialing function.

☞ ● You can set different DISA mode.
● When the system enable OGM fast dialing function,you can dial Dial 1 to call ext. 601、Dial 2 to call ext. 602,… dial 8 to 608, dial 0 to operator.

4.5.3 Call Pick Up

● Operation1:
Format: # 9 (Indirect-Dialing-Out mode)
Description: Allow you to answer an incoming call (direct or transferred) which is ringing on other extension.



☞ ● If the Ext is in Direct-Dial-Out mode, you should input: * # 9.
● Internal call can be also picked up.

● Operation2:
Format: # 3 + Ext . number (Indirect-Dial-Out mode)
Description: Allow you to answer an incoming call (direct or transferred) which is ringing on another extension.

☞ ● If Ext is in Direct-Dial-Out mode, you should dial * # 3 + Ext .number.

4.6 C.O. Line Reservation

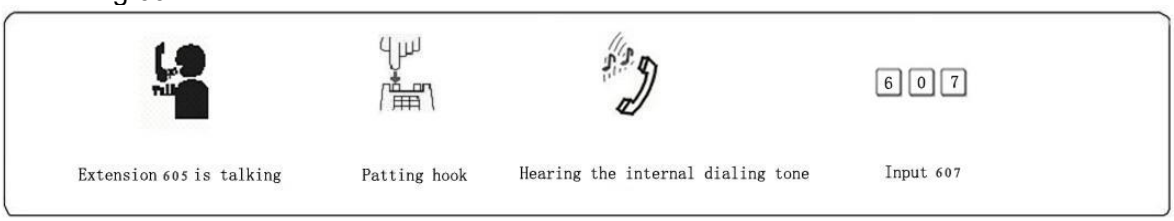
Format: Flash hook and # # (Reservation)
* # 9 (Restore)
Description: Extension N is talking with C.O. line A and at this time incoming call from C.O line B arrives, Extension N can flash hook and press # # to hold A(now A is hearing music on hold). At this moment, Extension N can also make call pick up(input # 9), call transfer, dialing out etc...if Extension N need to restore the connection with C.O. line, just input * # 9.

- On default setting, the holding duration time is 120 second.
- One extension can hold several call.

4.7 Call Transfer(External Call)

4.7.1 Call transfer to another Extension

Format: Flash hook (or press the FLASH button) then dial the Ext. number.
Description: 1. Allow you to transfer an incoming call to another Ext.
2.The Flash time can be set.
3.In the process of the transfer, the caller will hear music on hold.
Example: Ext.605 is talking with C.O. line and need to transfer the call to Ext.607.Then Ext .605 can transfer the incoming call to Ext .607 by flashing hook (or pressing the FLASH) and dialing 607.



☞ ◆ There maybe following 8 cases after a call is transferred from Ext.A to Ext. B:

● A does not hang up after B pick up handset .Then communication between A and B is established while C.O line is on hold (music on hold). Whoever hang up (A or B), system will transfer C.O line to the other.

● A does not hang up and B does not answer A within 25 seconds. Then A will restore the connection with CO. line, and B will stop ringing.

● A hang up and B answer the call; B will talk with C.O line.

● A hang up and B does not answer the call within 25 seconds, the call will be back to ring A, if A never picks up the call in 30 seconds or A is busy, the C.O line will be cut off.

● After A flash hook then hear the error massage, that means the system is busy, A can proceed to flash hook (or press the FLASH button) until the error massage is disappear.

● A make invalid operation or B is busy, After a continuous beep tone(du-du-du), A can repeat the operation.

● A hang up and B does not pick up. A pick up again and press: # 9 (If the Ext is at Direct-Dialing-Out mode, you should input: * # 9), then A will restore the connection with C.O. line.

● The EXT. which transfer the call (flash hook), then the C.O line will be on hold status until dial the right Ext. number or flash hook again to access CO line.

4.7.2 Call Transfer to Ext.Group

Format: Flash hook (or press the FLASH button) then dial Ext. Group number.

Description: Allow you to transfer an incoming call to Ext. Group, after transfer is succeed ,the members of the Ext. Group will ring together. When any one of the ringing Ext. pick up, others will stop ringing.

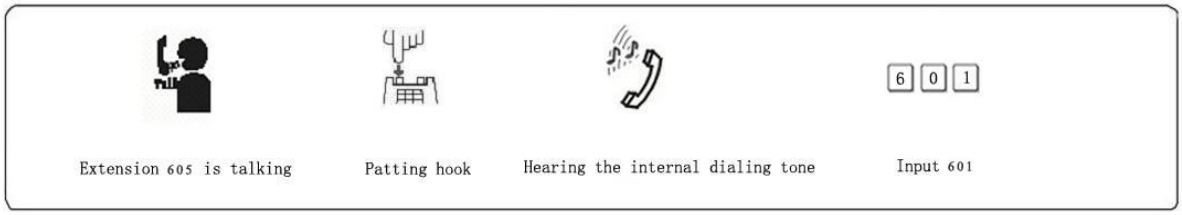
4.8 Call Switch (call pick up during conversation)

When extension is talking with C.O line, another Ext or a door phone, or another C.O line call in, the first Ext will hear prompt beep tone (the beep for door phone call and C.O line call is different). Then you can:

Operation1: Flash hook (or press the FLASH button), then you will hear dial tone, press "# 9" to switch another C.O line, also you can switch to receive the call from door phone. The first conversation now is on hold(for CO.line talking), for the conversion with door phone will be ended , when you talk with the second call, you can also flash hook and press # 9 to retrieve the first holding call.

4.9 Secretary Function(Outgoing Call Transfer Function)

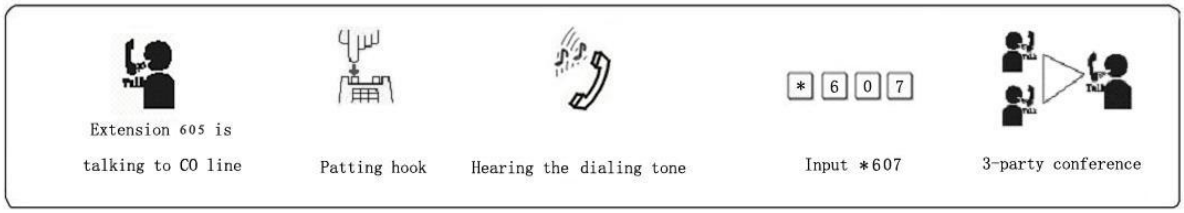
Format: Flash hook then dial the Ext number
Description: This function allow one extension to make an outgoing call and then divert it to another Ext.
Example: Ext .605 make an outgoing call then forward the call to Ext. 601.



☞ You should input the Ext. number within 5 seconds after flash hook (or press FLASH button) and hear internal dial tone, otherwise you will come back to the C.O. line again.

4.10 Three Way Conference (1 C.O Line and 2 Ext)

Format: Flash hook (or press FLASH button) dial * + Ext. number
Description: Allow you to add a third party to a two-party conversation and make a three-party conference. You can have only two Ext. with one C.O. line.
Example: Ext. 605 is talking with C.O. line caller and then he need to add Ext.607 in the call.



☞ There maybe following 2 case after a call is transferred from A to B.

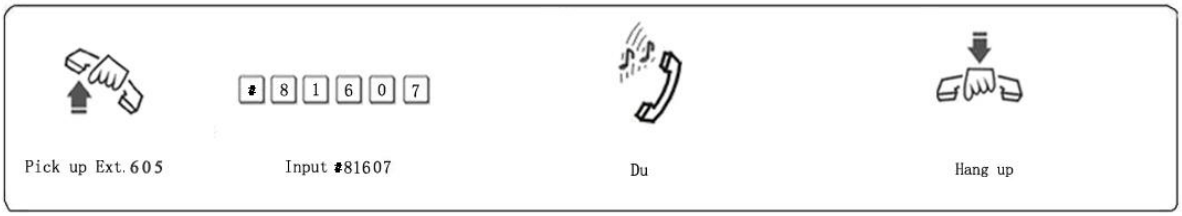
a. A does not on hook and B off hook. Then communication amount A, B and C.O. line is established, whoever on hook (A or B), the system will transfer C.O line call to another one.

b. A does not on hook, if B does not answer within 25 seconds, then A will restore to access C.O. line, and B stop ringing.

4.11 Call Forward

4.11.1 Call Forward Directly

Format: # 81 abcd
Explanation: "abcd" is extension number to be forwarding.
Description: Allow one Ext to forward incoming call automatically to another Ext. This is also one of Manager/Secretary function. Allow manager's Ext. to forward incoming call automatically to Secretary's Ext abcd.
Example: Ext. 605 need to forward all incoming call to 607 automatically



Format: # 81* ABCDEF#
Explanation: ABCDEF is external number(landline or mobile number) The number is 1-16 digit, This is in Indirect-Dialing-Out mode.
Description: Allow one extension to forward incoming call automatically to another external number ABCDEF. Including auto call forward to mobile phone
Example: Ext.605 need to forward all incoming to mobile number 1367409 automatically.



Format: # 81 #
Description: Clear call forward always

☞ ● In Direct-Dial-Out mode, you should set with *#81abcd(or *#81ABCDED#) and clear with*# 81#.
- Before setting, use #81# to clear other settings.
- If you set # 81 * ABCDEF #, then the setting # 81abcd is disabled.

4.11.2 Call Forward When Ext is busy or no answer

Before you can set this function, please use #81# and #82# (or #80)to clear all the setting of call forward.

Format: # 82 abcd
Explanation: abcd" is extension number to be forwarding
Description: If one Ext is busy or no answer after 20 seconds(refer 3.19.3), the incoming call will be forwarded to another Ext.

Format: # 82 * ABCDEF #
Explanation: ABCDEF is external number(landline or mobile number)
The number is 1-16 digit, This is in Indirect-Dialing-Out mode.
Description: If one Ext is busy or no answer after 20 seconds (refer 3.19.3), the incoming call will be forwarded to the another external number ABCDEF.

Example: When Ext.605 is busy or no answer, and incoming need to be forwarded to external number 1367409, the setting is like this:pick up Ext.605, input #82*1367409#, after hear a beep tone, hang up.

Format: # 82 #
Description: Clear call forward(busy/no answer)

Note: ◆ In Direct-Dial-Out mode, you should set with * # 82 abcd (or #82*ABCDEF#) and clear with * # 82#.
◆If you set # 82*ABCDEF#, then the setting # 82abcd is disabled.

4.11.3 Set Call Forward(to external number)talking time

Format: # 84 TT
Description: Set the talking time for Call forward(to external number) (TT = 01-99, units:10 seconds) On default setting,TT=09, that is 90s(80s for talking,10s for reminder)
Note: Each extension has different talking time.

Example**:** When set extension A call forward to external number M
I. When External caller K call extension A, system will forward the call(always/ busy/no answer)to external number M, after connected, 2 C.O line user can talk. When the talking time is beyond the setting time (#84TT,default is 80s) ,then the system will send reminder tone till 10s, at the same time each external user can press # to proceed the conversation till another 80s. If no operation,the call will be cut off. Meanwhile, any CO line user can press * to end with the call.
II. when C.O line user K is talking with external number M, Extension A can pick up the call by #9 to talk with two external users, talking time is not restricted,when Extension hang up, the call will be cut off.

◆ **Note:** If Ext is in Direct-Dial-Out mode, you should input: * # 84TT.

4.12 Ext. Number Query

Format: # 62

Example: Pick up Ext.605(caller ID phone), Input # 62, after hear a beep tone, then hang up, the extension will ring one second ,and you can see the port number + Ext number on telephone: 05 605.
Format: # 62 “beep” + #

Description: Pick up Ext. 605, input #62, after hear a beep tone, input # again, now you can hear a voice report the port number + extension number

☞ If Ext is in Direct-Dial-Out mode, you should input * # 62.

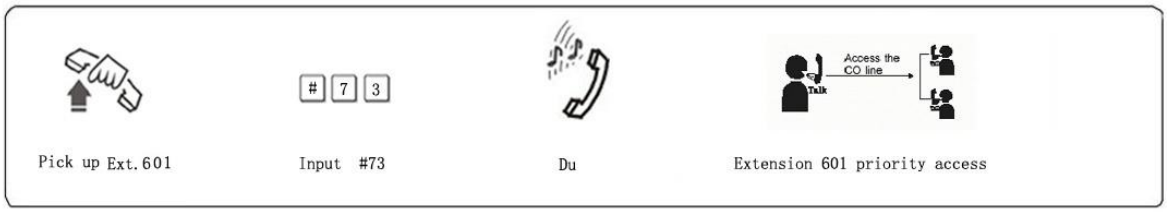
4.13 Priority Access(Call Monitor)

Format: # 7 M

Explanation: M: the C.O. line port number. M = 1 - 4

Description: Monitor the call for No.M C.O line.

Example: Priority access to C.O. line 3.



Format: # 77 + Ext. number
Description: Monitor the call for extension

☞ ● Only Ext.601 has priority access.
●If the Ext is at Direct-Dialing-Out mode, you should add *

4.14 Call Operator Directly

Format: 1884 # Any extension can call operator directly by dialing 0
Format: 1885 # Disable extension call operator directly by dialing 0

☞ If in Direct-Dial-Out mode, Ext should dial * 0.

4.15 Internal Hotline Function

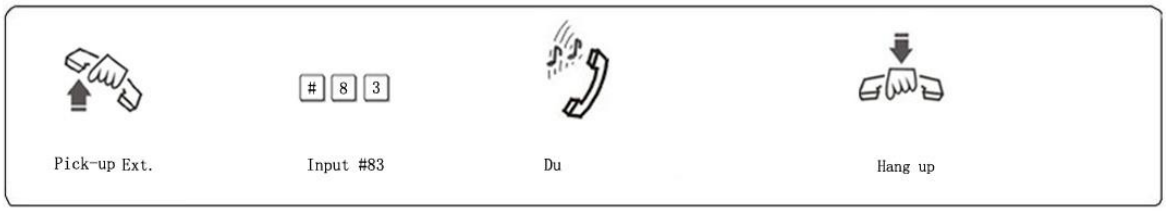
Format: 883 # Enable internal hotline function for all extension
Format: 883 N # Enable internal hotline function for No.N extension
Format: 884 # Disable internal hotline function for all extension
Format: 884 N # Disable internal hotline function for No.N extension
Format: 189 TT # Set waiting dialing time in hotline status, that is when hotline extension is picked up, within the time TT, if no any dialing, system will call operator directly. Default TT=0.

☞ ● After set internal hotline function, any extension when picked up, will call operator directly.
●Above setting should be performed in programming status.

4.16 Do Not Disturb(DND)

4.16.1 Set Do Not Disturb(DND)

Format: # 83
Description: If DND is set, then extension will not ring.



☞ If Ext is in Direct-Dial-Out mode, you should input: *# 83.

4.16.2 Clear Do Not Disturb(DND)

Format: Pick-up the handset
Description: To cancel DND function, you just pick up the handset.

4.17 Clear Extension Function Setting

Format: # 80
Description: This command will clear all function that extension was set, such as DND/Call divert/Call forward/C.O line booking etc. This command has no influence to other extension.

☞ If the Ext is in Direct-Dialing-Out mode, you should input * # 80.

4.18 Call All Extension(Group Call)

Format: # 88

Description: Programming extension can dial #88, then all other extension will ring simultaneously, if any extension is picked up, can talk with the calling extension, while the other extension keep ringing.

Chap 5 Maintenance & Troubleshooting

5.1 Outgoing calls can not be made

1). C.O. line is set to special Extension;
2). Extension hang up improperly;
3). CPU and internal data is disorder caused by unstable power.
4). Call restriction class is 6.

5.2 Outside calls can not dial in

1). The conjunction of C.O. line loose;
2). C.O. line was connected to other equipment;
3). No message recording at auto-operator mode.

5.3 Intercom can not be made

1). Extension hang up improperly;

2). Extension number wrong. **BREAKDOWN**	**CAUSE**	**SOLUTION**
Running light malfunction	Power off	Check the power socket and Power supply
No sound from extension	Disconnected wiring or malfunction of telephone.	Reconnect the wiring or try to remove the telephone's failure
Cacophony	Bad connection	Screw down the joint
	The distributing of line is not reasonable	Leave telephone from the disturbing source
Bad tone	Mix using of non-standard telephones	Use the standard telephones
No incoming telephone display	Devoid function of incoming telephone display	Write application to telecommunication office
	Wrong setting of No-disturbing and it status.	Rescind the No-disturbing and set incoming telephone display

Dial-out malfunction	Exterior line disconnected	Connect to the exterior line
	Exterior line is not connected well	Check whether the line is connected well
Limited calling time	Time limited	Rescind the limit
Cannot program the telephone	Wrong coding	Check the programming extension and use the right code
Others	Others	Refer to professional

Chap 6 Programming & Operation Instruction

6.1 Index of System Programming

No.	Description		Format
1.	Enter into the system programming		（*）#* EFGH
2.	Return to default setting		0000 #
3.	Flash Time Setting		00 L #
4.	Change the password		09 EFGH #
5.	System Soft-Reset		09999999 #
6.	Delaying Mode Setting		03 TT #
7.	Day/Night Mode	Auto-attendant Day/Night	0440 #
		Auto-attendant Day	0441 #
		Auto-attendant Night	044 #
8.	Enable/disable C.O. Lines	Enable C.O. Lines	0600 #
		Disable C.O. Lines	0610 #
		Enable M C.O. Line	060 M #
		Disable M C.O. Line(M=1-4)	061 M #
9.	C.O. Lines Working Assignment	assign the different trunk lines working averagely	0620 #
		use trunk lines in sequence	0621 #
10.	Attendant Mode	Operator mode for all CO lines	11 #
		Operator mode for M CO line	11 M #
		Auto-attendant for all CO lines	10 #
		Auto-attendant for M CO line	10 M #
11.	OGM Recording		12 M #

12.	OGM Monitoring		13 M #
13.	Music Monitoring		14 #
14.	Operator Setting		15 N #
15.	Fast Dialing Operator	Enable	1884 #
		Disable	1885 #
16.	External line Transfer Mode	Mode 1	1886 #
		Mode 2	1887 #
17.	OGM busy in auto-attendant	Waiting	1540 #
		Transfer to operator	1541 #
18.	No dial in auto-attendant	Release C.O. line	160 #
		Transfer to operator	161 # or 1610 #
19.	System option for transfer to a no answer Ext	Call back the extension	162 #
		Don't call back	163 #
20.	Dialing Extension Busy process	Line break when busy	165 #
		Transfer to operator	1650 #
		send prompt tone to the extension	1655 #
		transferred to the operator mode ringing extension	1656 #
21.	No Answer process	Cut off C.O.Line	166 #
		Transfer to operator	1660 #
		transferred to the operator mode ringing extension	1666 #
22.	System CRBT	Disable CRBT function	167 #
		Call the operator directly	1670 #
		Call the operator mode Ringing Extensions	1676 #

23.	Power Failure Conservation	Not conservation	170 #
		Conservation	171 #
24.	No answer transfer time	No answer transfer time setting	184 TT #
25.	External Line Reservation Time		186 TT #
26.	Prompt and in line ringing	Prompt type	1880 #
		In line ringing	1881 #
27.	Extension Dial-out Mode	Single direct dialing out	2 N 0 #
		Single indirect dialing out	2 N 1 #
		All direct dialing out	20 #
		All indirect dialing out	21 #
28.	Ringing Ext. Setting in Day Mode	Add single ext.	30 M N 0 #
		Clear single ext.	30 M N 1 #
		Clear all exts.	30 M #
29.	Ringing Ext. Setting in Night Mode	Add single ext.	31 M N 0 #
		Clear single ext.	31 M N 1 #
		Clear all exts.	31 M #
30.	Call out class	Set single ext.	40 N L #
		Set as exts.	40 L #
31.	Restriction Item A	Add restriction	41 QQABCD #
		Clear all restriction item A	41 #
		Clear group QQ	41 QQ #
32.	Restriction Item B	Add restriction	42 QQABCD#
		Clear all restriction item B	42 #
		Clear group QQ	42 QQ #

33.	Special Initial digits of number	Add initial digits	43PP ABCD#
		Clear all initial digits	43 #
		Clear group PP	43 PP #
34.	Ringing Time Setting	Internal call ringing time	494TT#
		Operator dialing/transfer ringing time	496TT#
35.	Outgoing restriction Time	Setting ext. N restriction time	6N TT #
		Clear ext. N restriction time	6N 00 #
36.	C.O. Line Access In Day Mode	Allow ext.N use C.O. line M	70 M N 0 #
		Restrict ext.N use C.O. M	70 M N 1 #
		Allow all exts. use C.O. M	70 M 0 #
		Restrict all exts. use C.O. M	70 M 1 #
		Allow ext.N use all C.O. line	70 N 2 #
		Restrict ext.N use all C.O. lines	70 N 3 #
37.	C.O. Line Access In Night Mode	Allow ext.N use C.O. line M	71 M N 0 #
		Restrict ext.N use C.O. M	71 M N 1 #
		Allow all exts. use C.O. M	71 M 0 #
		Restrict all exts. use C.O. M	71 M 1 #
		Allow ext.N use all C.O. line	71 N 2 #
		Restrict ext.N use all C.O. lines	71 N 3 #
38.	Flexible Exts. Code	Single Ext. setting	9 N ABCD #
		Change extension numbers in batches, starting with abcd, add 1 in turn	900 ABCD#
		Restore default setting	9000 #

6.2 Index of Operations

Note:

following operations in the status of the extension is in indirect-dial-out mode, don't need input " * "; if the extension is in direct-dial-out mode, that should input " * ".

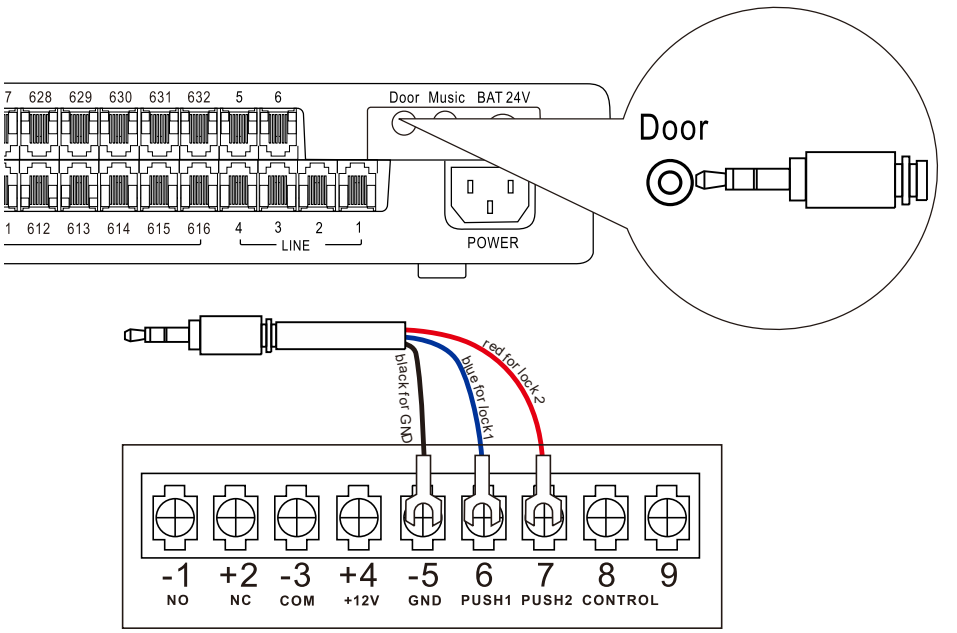
No.	Description		Format
1.	Outward Dialing		Off-hook + (9) + phone number
2.	Outgoing Call Transfer		Off-hook + (9) + phone number +conversation+ pat hook + ext.No
3.	Intercom Calling		Off-hook+(*) + ext.No.
4.	Coming Call Pickup		Off-hook+(*) + # + 9
5.	Dialing Operator		Off-hook+(*) + 0
6.	C.O. Line Booking		Off-hook+(*) + #
7.	Call Pickup C.O. Line		Off-hook+(*) + # + 1+M
8.	Day Mode setting		Off-hook+(*) +#20#
9.	Night Mode setting		Off-hook+(*) +#21#
10.	Call Pickup Exts.		Off-hook+(*) + # + 3+ext. No.
11.	Inquiry of ports		Off-hook+(*) + # + 6 0
	Inquiry of Ext.		Off-hook+(*) + # + 6 1
12.	Priority Access and Monitoring	Monitoring C.O. Line	Off-hook+(*) +# + 71+M
		Monitoring	Off-hook+(*) +# + 72+Ext.No.
13.	Clear Exts. Function		Off-hook+(*) +# +80
14.	Manager Function	Setting	Off-hook+(*) + # + 81 + Ext.No
		Clearing	Off-hook+(*) + # + 81 + #
15.	Busy Transfer	Setting	Off-hook+(*) + # + 82 + Ext.No.
		Clearing	Off-hook+(*) + # + 82 + #
16.	Don't Disturb		Off-hook+(*) + # + 83
17.	Call All Exts. No.		Off-hook+(*) + # + 88

18.	External Call Transfer	Conversation+ pat hook + Ext. No.
19.	Three Way Conference	Conversation+ pat hook + * + Ext.No.
20.	C.O. Line Reservation	Conversation+ pat hook + # + #
21.	C.O. Line Transfer to C.O.Line	Conversation+pat hook + # + *（three way conference mode）
		Conversation+pat hook + # + 6 （C.O.line transfer mode）
22.	Call Pickup During Conversation	Conversation+pat hook + # + 9

Appendix I Door-phone Function

I.I Connection instruction

The system can be connected with two door-phone



CS+632 door lock connection

The system provide door opener interface(relay switch, connect with the wire of electric lock, 1 door lock opener is standard config) , and system can defined two extension as door phone.

I.II Set Door-phone function

You need to perform the following setting in system programming status by programming extension(Ext.601-604)

I.II.I Set the port of Door phone

Format: **80 N #** set the first door phone (N is Ext port number)
81 N # set the second door phone (N is Ext port number)
8000 # clear setting of the first door phone
8100 # clear setting of the second door phone

Default: door phone is not set

I.II.II Door phone ringing Extension Setting

Format: **82 #**

Description: Clear all extension assigned to door phone.

Format: **82 N #**
Description: Set Ext.N as the ringing extension when door phone call in

NOTE: ◆ On default setting: Ext.601 & Ext.602 are ringing extension for door phone call.
◆ Maximum 8 extensions can be set as the ringing extension for door phone call.

I.II.III Set Duration of switch Signal

Format : **185 TT #**
Explanation: TT = 01-99 opener action time is TT*0.1s
Description: Set the door opener action time (the closing time for the relay of door opener).
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 with electric lock.
●On default setting, TT=4, means 0.4s.

I.III Operating Instruction

Operation1: Press the call button on door phone and press *1 or *2 to open the door lock.
Description: when visitor press the call button on door-phone,the door phone ringing extension will ring, at this moment the door phone will be on the status of music on hold (if nobody answer after 25s, system will send a busy tone to door phone),you pick up the ringing extension to talk with the visitor.
During talking with the door phone caller, Extension input *1 to open the door lock1, input *2 to open the door lock2.

☞ ● Any extension can pick up the call and open the door when visitor press door phone
● When visitor press the door phone, If the ringing extension assigned to the door phone 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 continuous beep tone as reminder.
● System has 3 different ringing tone for different call:
-one for the intercom call
-one for the door phone call
-one for the C.O.line incoming call

Operation2: directly open the door
Pick-up + # 19 to open the door lock1 directly.
Pick-up + # 18 to open the door lock2 directly.

◆**Note:** If the Ext is in Direct-Dialing-Out mode, you should input: * # 19.

Appendix II Least Cost Routing (LCR) Setting

II.I Instruction for LCR

●When user dial out, system will access the least-cost routing line according to the outgoing code dialed.

- System define the trunk line in 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 some other provider, like VOIP / GSM / CDMA…..etc, which can offer the cheaper rate for some international call, some domestic-long-distance-call.

II.II Programming setting

The following setting should be performed in programming status:
Format: 0700 #
Description: Initialize LCR setting, on default setting,Routing function is disabled, the system treat all C.O. line as normal trunk line.
Format: 0720 #
Description: Enable LCR function
Format: 0721 #
Description: Disable LCR function
Format: 0730 #
Description: System will access normal trunk line if special trunk line is busy.
Format: 0731 #
Description: Restrict system access normal trunk line if special trunk line is busy.
Format: 0732 #
Description: System will access special trunk line if normal trunk line is busy.
Format: 0733 #
Description: Restrict system access special trunk line if normal trunk line is busy.
Format: 0740 #
Description: allow normal trunk line available for outgoing & incoming.
Format: 0741 #
Description: Don't allow normal trunk line available for outgoing.
Format: 0750 #
Description: allow special trunk line available for outgoing & incoming
Format: 0751 #
Description: Don't allow special trunk line available for outgoing.

Set trunk line in Normal trunk line / Special trunk line

Format: 0760 #
Description: Set all trunk line as Normal trunk line
Format: 076 M #
Description: Set NO.M trunk line as Normal trunk line (M=1-3)
Format: 0770 #
Description: Set all trunk lines as the special trunk line
Format: 077 M #

Description: Set NO.M trunk line as special trunk line(M=1-3).

Set outgoing access-code for Special trunk line
Format: 078 K #
Description: In LCR mode, set outgoing code K to access special trunk line.

☞ ● K=1, 2…..8 (K can't be outgoing code 9 or 0)
● K can't be the same as the first digit of extension number

II.III Operating instruction

- ◆ Enable/Disable the CO.line
- ◆ Set trunk lines as Normal trunk line / Special trunk line
- ◆ Enable LCR mode
- ◆ Set outgoing access-code (K) for special trunk

In LCR mode
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, Please note: you must input ∗ to enter intercom status

Appendix III Auto Add Prefix number dialing

Through this function,when extension make an outgoing call, then system will add prefix number automatically in front of the number dialed.

You can set two groups prefix number, each number correspond to any C.O. Lines.

III.I Programming setting

The following format should be performed in programming status:

III.II Enable/Disable prefix number add Dialing function

Format:

8400 #	disable prefix add dialing function for all C.O. line
84 N #	disable prefix add dialing function for No. N Ext
8500 #	enable prefix add dialing function for all extension.
85 N #	enable prefix add dialing function for No. N Ext
8803 #	all outgoing call use added prefix number
8804 #	enable special C.O. line (trunk line) prefix add dialing function, only add prefix number when call special trunk line.
8800 #	cancel 8803# and 8804# setting functions.

III.III Prefix Number Setting

Format: 83 ABCD + off-hook

Description: ABCD --- 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: If prefix number is 17909, input 8317909+off-hook

III.IV Prefix Number Dialing

◆ As per normal dialing mode(direct diali-out mode/indirect dial-out mode both ok)to dial the number, system will auto add prefix number.

Appendix IV Abbreviated-dialing(Memory dialing)

This function allow Extension to make an outgoing call with only dialing two digits series No.(one serial number indicate a string of real phone number).

IV.I Programming setting

The following format should be performed in programming status:

Format : 46 # clear all Abbreviated-Dialing Number.
46 K # clear the Abbreviated-Dialing Number of Group K
46 K ABCD # set the Abbreviated-Dialing Number of Group K

Explanation:

- ◆ K is the group number, K =01-96. You can set at most 96 groups.
- ◆ ABCD… is abbreviated-dialing number. The longest numbers can be 16 digits.

IV.II Operating instruction

For normal phone :

Format: Pick up and dial #70 + the group number (01-96)

Example: you set number 86228930 as the first group abbreviated-Dialing number:Pick up Ext.601, enter into programming state (*#*0000) and hear beep tone,then dial 46 #(the first time setting it's better input this instruction to clear all data), after hear a beep tone then input 46 0186228930. After this setting, you can pick up one extension and dial #70 01,system will access available C.O line and call 86228930 automatically .

Appendix V Extension Dynamic Lock

Each extension can set itself lock password, the dialing level is 6 (can only dial intercom call)

V.I Set the password of dynamic lock

Format: off hook extension + input (*)#5*abcdABCD
notes: abcd is default password, is 0000, ABCD is new password, if typing mistake, will hear busy tone

V.II Locking setting

Format: off hook extension + input (*)#5#ABCD*
After succeed you will hear a verification tone, this extension level turn 6 (can only dial intercom call,no matter day/night mode.

V.III Unlocking setting

Format: off hook extension + input (*) #5#ABCD#
After succeed you will hear a verification tone, this extension level turn back to original level.

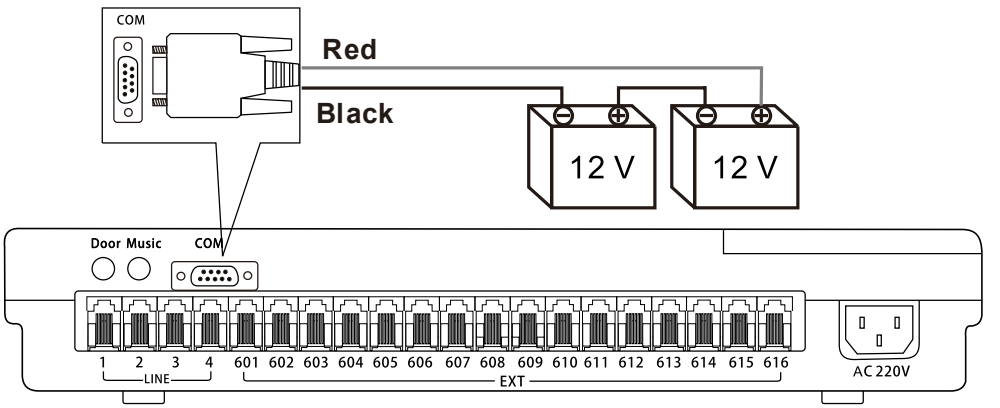
V.IV Initialization / Clear the password

Format:
50000 # the entire extension password returns to default 0000.
500 N # to clear the Extension NN password (N is extension serial number, N =01-32).

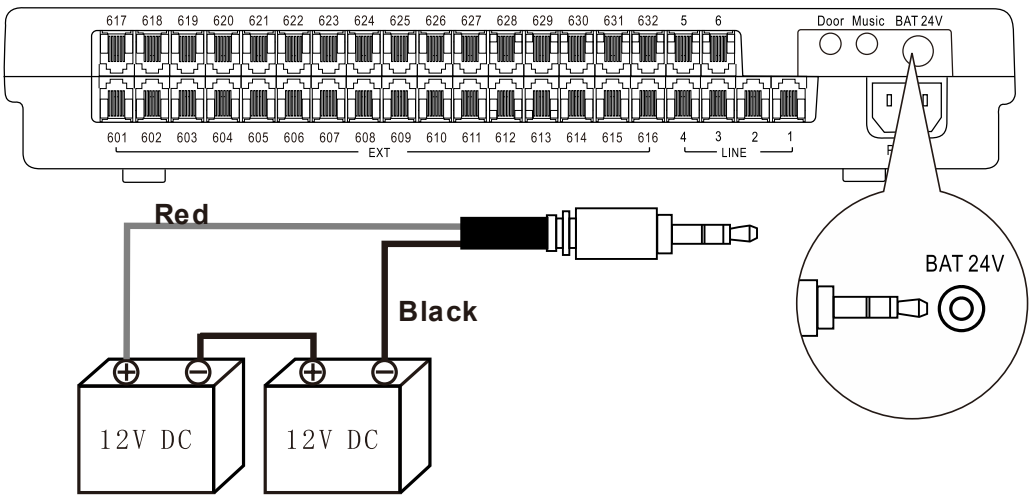
Appendix VI Backup Battery Option

The system can be connected with external backup battery as option, so that when power is failure, system can continue to work with the power from backup battery. If customer choose backup battery option, the default standard power supply board need to be replaced with ACDCDY power supply board.

How to connect the system with external backup battery? Please refer to following pics:



CS+ 208/308/416 back-up battery connection



CS+632 back-up battery connection