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1 General Description

Thanks for choosing our Aristel EW20 telephone switching system.

Derived from Aristel AV-20 telephone system, EW20 is specially designed as a concise and practical version for most users. Inheriting the characters of spatiality and reliability, EW20 is most suitable for small office and home office with its rich practical functions. The main difference between the EW20 and AV-20 is that, EW20 can only connect with Single Line Telephone while AV-20 can connect with both Single Line Telephone and Key telephone.

The basic capacity of EW20 is 2 CO lines and 8 Single Line stations, and can be expanded to a maximum of 4 CO lines and 16 Single Line stations. This User manual gives clear descriptions of all the steps for installation and operation. If you have any queries, please contact your authorized agent for help.

2 System Specification & Function

2.1 Basic Specification

- ◆ System Capacity : 208 ~ 416
- ◆ Built-in Voice Auto Attendant
- ◆ CO/station lines connected by RJ-11

2.2 System Specifications

Aristel EW20	Basic Capacity	Expansion Capacity	Maximum Capacity
CO Line	2	2	4
Single Line Station	8	8	16
Built-in Auto Attendant	1	1	1
Power Failure Transfer Phone (PFT)	2	2	4

Table 1: System Specifications

2.3 Electrical & Other Specifications

EW Series		EW20			
Power Adapter	Input AC Voltage	AC220V (±15%) 50Hz			
	Output AC Voltage	25V 1A & 75V 0.02A			
Power Consumption		System	≤20W	SLT	0.85W
Dialing Signal	Outgoing Dialing	Tone			
	Intercom Dialing	Tone			
Wiring Installation		CO Line	2 wires	SLT	2 wires
System Dimension (mm)		306×205×70mm			
Working Temperature		-10°C~40°C			
Working Humidity		≤85% (non-condensing)			
Switch Mode		SDM (Space Division Matrix)			

Table 2: System Electric specifications

- ◆ Subject to the changes without notice.

2.4 System Features List

Special features:

- Flexible Extension Numbering with 2 to 4 digits length and the first digit is 1 - 8 at option.
- The Caller ID number will be displayed no matter from the incoming lines or intercom. This number also can be forwarded to other extension.
- Up to 16 ringing extensions for the incoming calls can be assigned and display CID number.
- Power Failure Transfer Phone (PFT): 4 Lines.
- Built-in Auto Attendant function for greeting message up to 40 seconds.
- Built-in PBX trunk line access code while EW20 connected behind external PBX.
- Provides 40 groups Force Account Code in total for Toll call management.
- Multi-level Toll Restriction programmable: Internal calls, Local calls, Long Distance calls and International calls.
- Provides 20 sets programmable restricted code for outgoing calls.
- Self-checking of port number and extension number to facilitate the installation.
- EEPROM Memory Design to ensure the programming can be saved even power failed.

Other features:

- Call Pickup
- Call transfer
- Call forward
- DND Setting
- Hot Line setting
- Speed Dialing

3 Preparation & Note for the System Installation

3.1 Preparation for System Installation

- Please check whether the system capacity and the quantity of phones are suitable or not.
- Please prepare the necessary wires and instruments for installation.
- Please carefully read this manual before installation and follow up the procedures of installation on this manual.

3.2 Special Requirements for Installation Environment

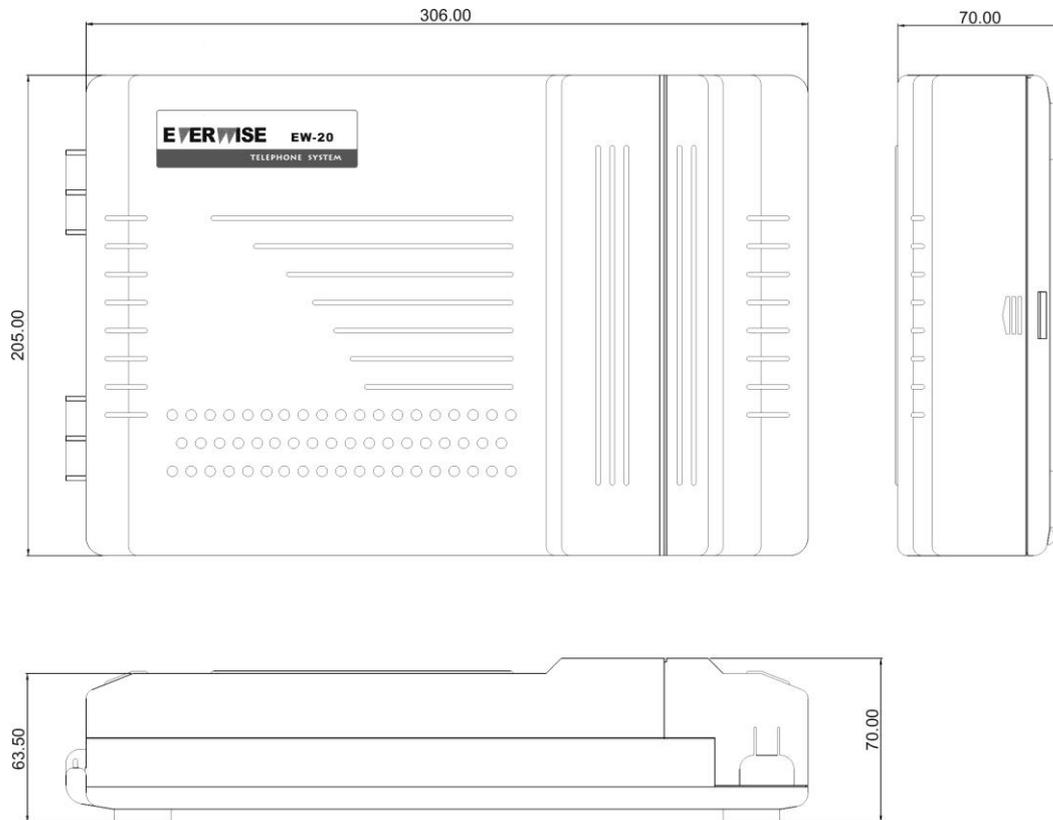
- Input AC Voltage: AC220V±15%。
- Wiring Requirements :
CO Line: 2-conductor wiring
SLT Extension: 2-conductor wiring
External Music Source: 2-conductor wiring。

3.3 Equipment Remarks

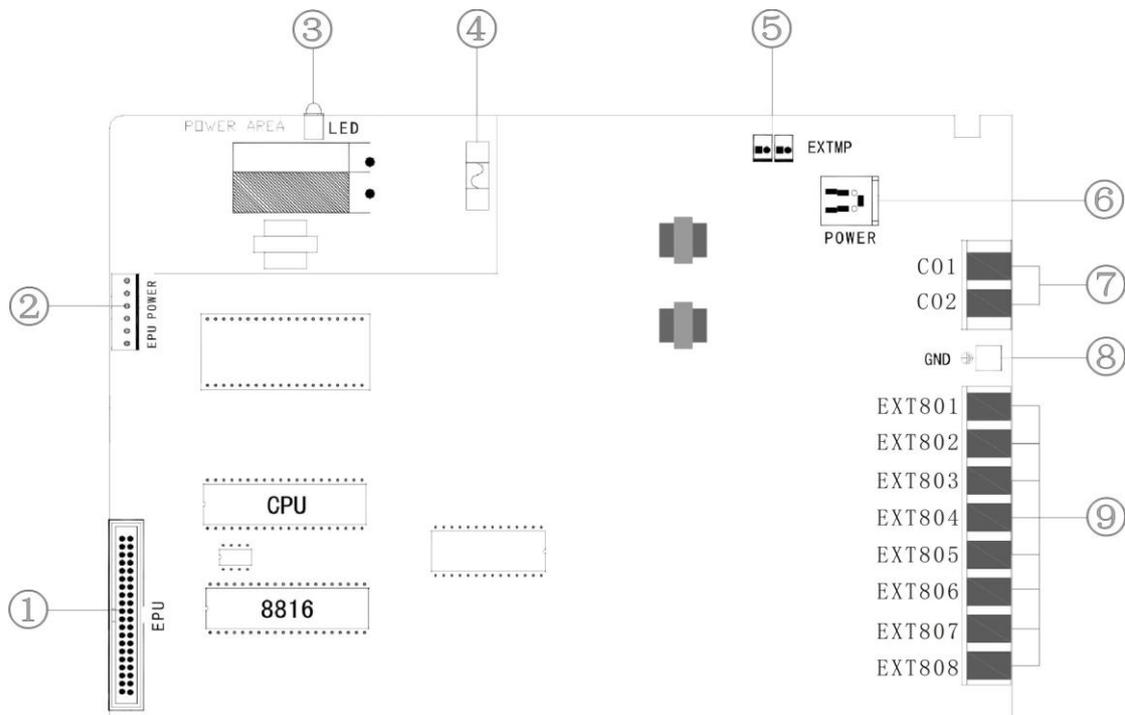
- The system should be installed at a clean, dry and secure position, 10 centimeters above the ground to avoid the vibration.
- The location must have adequate ventilation and a temperature range between -10°C~40°C with a ≤85% non-condensing relative humidity.
- The installation site should have sufficient room to mount the System along with the necessary connecting blocks and ancillary equipment. The installation site should not be at the area with static electricity (e.g. Dry copiers), or vibration (e.g. Heavy duty machinery)。
- This system must use the independent power input. The power should better not share with other power-consumption equipment, for example: huge power-consumption machine and be controlled directly by main switch. In addition, the location must be far away from high frequency & noise soundings to avoid the interference from radiation 『EMI』 .
- Voltage Stabilizer is recommended if the electricity supply is not so stable.
- Please use the lightning-protection equipment to guarantee system's stability.
- Suggest using twist wires for CO line & station line to avoid noise and interruption.
- SLT wiring must be away from some other disturbance (e.g. : radio wave). Otherwise a separate earth is required in addition to the third earth wire on the AC circuit.

4 EW20 PCB & Cabinet Layout

4.1 Three-View Drawing Of EW20

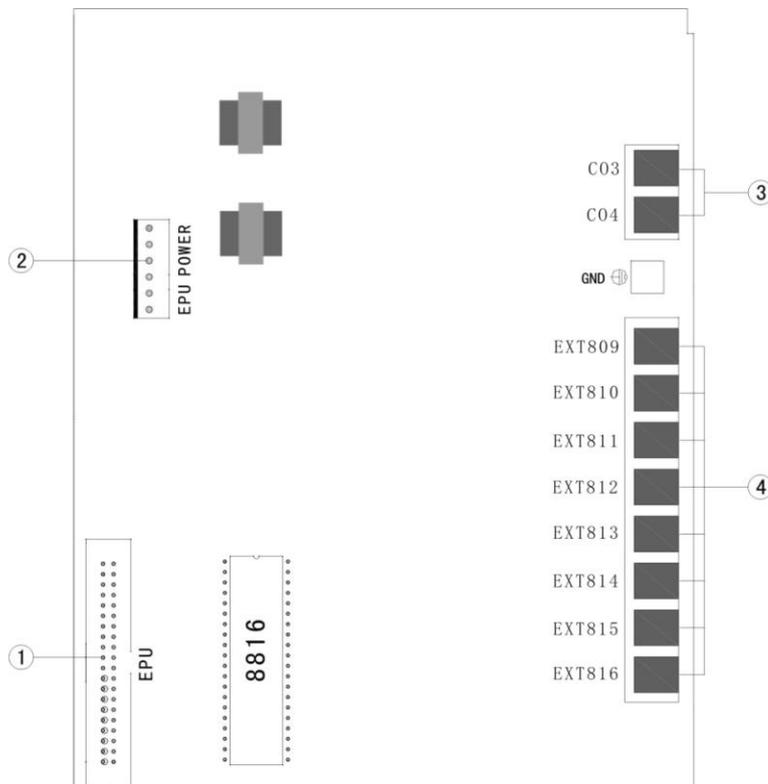


4.2 EW20 Mother Board Unit (E8MBUA)



- 1、 EPU Expansion Connector
- 2、 EPU Power Supply Connector
- 3、 Mother Board LED
- 4、 Fuse (250V/2A)
- 5、 External Music Resource Connector
- 6、 System Power Connector (USB form)
- 7、 CO Line Ports : CO1 and CO2
- 8、 Grounding
- 9、 Extensions Ports: 01 ~ 08 (Factory default extension No.: 801 ~ 808)

4.3 EW20 Expansion Unit (E8EPUA)



- 1、 EPU Data Connector
- 2、 EPU Power Connector
- 3、 CO Line Ports: CO3 and CO4
- 4、 Extensions Ports: 09 ~ 16 (Factory default extension No.: 809 ~ 816)

5 System Program Setting

5.1 System Program Command **# * 10 + [System Password]**

All settings are available only under the system program Command and can be done by any extension.

To enter the system program Command:

- (1) Off hook to hear the dial tone;
- (2) Press **# * 10**, enter the System Password (5 digits);
- (3) The system comes into the program mode while hearing the dial tone again;
- (4) Enter the required setting. Hear the dial tone when setting is successful;
- (5) Repeat Step (4) to continue other settings.

Note:

- ① The default system password is **00000**; Please reset the system before commencing system program at the first time.
- ② other settings can be continued. However, if the setting failed, you will hear a busy tone, then please “hook flash” or press the “Flash” Key to hear a dial tone and continue the settings.
- ③ **** is to indicate all the extensions (** for 3 digits extension number and **** for 4 digits)**; while **9** is to indicate all the CO lines.

5.2 System Reset **# * 20 + [System Password]**

This setting is to restore all the setting values to factory default.

- (1) Enter the system program Command, then press **# * 20**, enter the System Password (5-digits);
- (2) Dial tone is heard to confirm successful reset after a pause of about three seconds.

5.3 CO line Connection Setting **# * 11 + [CO Line No.] + [0/1]**

When one channel of CO lines is not used, it must be set as not connected to keep the user away from the access to a non-existent CO line.

- (1) Enter the system program Command, then press **# * 11**, **CO Line No.**, then press **M**;
M = 0 not connected.
M = 1 connected;
- (2) Dial tone will be heard if the setting is successful.

Note: The default setting for all the CO lines is as connected;

5.4 Answer Mode for CO Line Incoming **# * 12 + [CO Line No.] + [Answer Mode]**

Each CO line can be assigned as either of the two modes to answer the incoming calls:

- Ring the assigned extension

- Answered by auto-attendant.
- (1) Enter the system program Command, then press # * 12, CO Line No. and M;
 - M = 0** Ring the assigned extension
 - M = 1** Answered by Auto-attendant.
- (2) You will hear dial tone if the setting is successful.

Note: The factory default setting is Ring Mode

5.5 Record/Play of the Voice Announcement # * 13 + [Record/Play: M] + [Segment: N]

When in auto-attendant mode, the system will provide voice announcement for the external caller to directly access an extension. The users can record the message as they preferred. There are three segments of voice announcement in total. The first is greeting message, the second is "Extension Busy" Announcement and the third is "No answer" Announcement.

M = 1 to Record message;

M = 2 to Play message.

N indicates the Segment, N=1~3 ;

Operation of recording the first segment:

- (1) Enter system program Command, then press # * 13 + 1+1
 - 1 = indicates to record and 1 = indicates the Segment 1
- (2) Record the first segment of message after hearing a prompt sound "Di"
- (3) On-hook to finish recording;
- (4) Repeat the above three steps to record the message of Segment 2 and Segment 3.

Note:

Always begin recording after the "Di" sound is heard.

- **The first segment** is for greeting message such as "Please dial the extension number. For operator please dial 0."
- **The second is** for "Extension Busy" Announcement, such as "The extension you dialed is busy now, please dial later or call other extension".
- **The third segment is** for "No answer" Announcement, such as "The extension you dialed is no answer, please dial later or call other extension".
- **The Segment 2 and Segment 3** will be erased when the **first Segment 1** is recorded; The **Segment 3** will be erased when the **Segment 2** is recorded.
- **Please refer to the following suggestions while recording the message.**
 - a. Choose a quiet environment
 - b. Always use handset instead of microphone (Hands free)
 - c. Press the hook immediately after finishing recording.

5.6 Ringing Extension Assignment **# * 14 + [Ext. No.] + [CO Line No.] + [1/0]**

Under the mode of Ringing assigned extension for incoming calls, when there is an incoming call, the assigned extension will ring; The operator extension will ring if no ringing extension is assigned. If the 1st operator extension is not answered within 25 seconds, the 2nd one will ring together. While if the 1st one is busy, the 2nd one will ring immediately.

To assign the Ringing Extension:

- (1) Enter the system program Command, then press **# * 14, Extension No., CO Line No.**, then **1**;
- (2) When the dial tone is heard, the extension is set as the ringing extension for the corresponding Co line.

To disable the Ringing Extension:

Press **# * 14, Extension No., CO Line No.**, then **0**.

To disable all the Ringing Extension:

Press **# * 14**, and ******* (or ******, or ******** depending on the extension No. length), **CO Line No.**, then **0**.

Note:

An extension can be set as ringing extension for more than one CO line and one CO line can be assigned more than one ringing extension as well.

5.7 1st Operator Extension Setting **# * 15 + [Extension No.]**

One extension can be set as operator extension. Extension 801 is set as the 1st operator extension under factory default setting.

- (1) Enter the system program Command, then press **# * 15**, followed by the **Extension No.**
- (2) Dial tone will be heard if the setting is successful.

To cancel the 1st operator extension setting: Press **# *15**, then **#**

5.8 2nd Operator Extension Setting **# * 16 + [Extension No.]**

The 2nd operator extension serves as the backup of the 1st attendant extension.

- (1) Enter system program Command, then press **# * 16**, followed by the **Extension No.**
- (2) Dial tone will be heard if the setting is successful.

To cancel the 2nd operator extension setting: Press **# *16** then **#**

5.9 Extension COS (Class of Service) Assignment **# * 17 + [Ext. No.] + [Ext. COS]**

Each Extension can be assigned one of the six COSs.

- (1) Enter system program Command, then press **# * 17, Extension No.**, then **Ext. COS M**;
 - M = 1** can dial intercom calls only;
 - M = 2** can dial local call (number not prefixed by 0) except Special local call and restricted by Prohibited Code;
 - M = 3** can dial all the local call, but restricted by Prohibited Code;
 - M = 4** can dial STD long distance call (number prefixed by 0 except 00), but restricted

by Prohibited Code;

M = 5 Only restricted by Prohibited Code;

M = 6 No dialing restriction.

(2) Dial tone will be heard for successful setting.

Note:

- ① COS1 to COS5 are all restricted by Prohibited Code. Please refer to **5.15 the Prohibited Code setting.**
- ② The default value of all the extension's COS is **5**.

5.10 Extension No. Length Setting # * 18 + [Ext. No. Length I] + #

The extension number length can be set as 2 digits, 3 digits or 4 digits.

(1) Enter the system program Command, then press **# * 18**, and **I**, then **#**,

I = 2, the extension number length is 2 digits;

I = 3, the extension number length is 3 digits;

I = 4, the extension number length is 4 digits.

(2) Dial tone will be heard for successful setting.

Note:

- ① When the setting is done, all the extension number are restored to factory default value: **11~26** for 2 digits, **801~816** for 3 digits, while **8001~8016** for 4 digits.
- ② The default value of extension number length is 3 digits, i.e 801~816

5.11 Extension Number Setting # * 19 + [Ext. Port No. 1] + [Ext. No. 1]+*+ [Ext. Port No. 2] + [Ext. No. 2]+*+...+ [Ext. Port No. N] + [Ext. No. N] + * + #

This setting is to assign an extension number to each extension port. Extension number can be flexibly assigned within 10 to 89, 100 to 899, or 1000 to 8999 after the extension number length is defined.

(1) Enter the system program Command, then press **# * 19**, **Extension Port No.** and **Extension No.**, then ***** to finish the setting of current Extension Port and to the setting of next Extension Port. Repeat the above process to continue the other Extension Ports setting

(2) Press **#** to exit the Extension Number Setting and hear the dial tone.

Note:

- ① The Extension Port Number is a fixed number from **01 to 16**.
- ② A busy tone is heard to deny the current extension port setting if the extension number has already been assigned to other extension port. When this happen, just Flash or Recall to hear the dial tone and remain in program mode.

5.12 System Password Changing **#*21 + [New System Password]**

- (1) Enter the system program Command, then press # * 21, then enter 5-digits for the new password.
- (2) Dial tone will be heard for successful setting.

5.13 CO Line Hunting Code Setting **# * 22 + [9 or 0]**

The CO line hunting code can be set as 9 or 0. The default setting is 9.

- (1) Enter the system program Command, then Press #*22, then 9 or 0;
- (2) Dial tone will be heard for successful setting.

Note:

When either 9 or 0 is set as CO line hunting code, the other digit is automatically set as access code for operator extension.

5.14 Availability of Ext. to Access CO Line **# * 23 + [Ext. No.] + [CO Line No.] + [1/0]**

This setting is to define the availability of an extension to access a specific CO line.

To enable the availability:

- (1) Enter the system program Command, then press # * 23, **Extension No.**, **CO Line No.**, then 1;
** is to indicate all the extensions (** for 2 digits extension number and *** for 3 digits);
while 9 is to indicate all the CO lines;
- (2) Dial tone will be heard for successful setting

To disable the availability:

- (1) Enter the system program Command, Press # * 23, **Extension NO.**, **CO Line No.** then 0;
- (2) Dial tone will be heard for successful setting.

Note: Each extension is entitled to access all the CO Line as the factory default.

5.15 Prohibited Code Setting **# * 24 + [Group No.] + [Prohibited Code] + #**

This system provides Maximum 20 groups of prohibited code.

- (1) Enter the system program command, then press # * 24, **Group No.** (01~20), **Prohibited Code**, then #;
- (2) Dial tone will be heard for successful setting.

Note:

- ① **To cancel one group of prohibited code:** Press # * 24, **Group No.**, then #.
- ② **To cancel all the prohibited code:** Press # * 24, **, then #.

5.16 Special Local Call No. Setting **#*25 + [Group No.] + [Special Local Call No.] + #**

The system provides Maximum 30 groups of special local call number with a maximum length of 5 digits.

- (1) Enter the system program Command, then press # * 25, **Group No.** (01~30), **Special local**

call number, then #;

- (2) Dial tone will be heard for successful setting

Note:

- ① **To cancel one group of special Local Call:** Press # * 25, Group No., then #.
- ② **To cancel all the special Local Call:** Press # * 25, **, then #.

5.17 Forced Account Setting # * 26 + [Individual ID] + [Individual PW] + [COS]

Forced account consists of a 2-digits ID and a 4-digits Password. Each forced account is assigned a Class of Service Level. Forced account let you temporarily override an extension's toll restriction. This system provides Maximum 40 groups of forced account.

- (1) Enter the system program Command, then Press # * 26, Individual ID (01-40) , individual password , then COS;
- (2) Dial tone will be heard for successful setting.

Note:

- ① Please refer to **5.9 Extension COS Assignment** for COS definition.
- ② **To cancel all the forced account:** # * 26 + ** + #.

5.18 1st Landline Prefixed Number Setting # * 27 + [1st Landline Prefixed Number] +

This setting is to set a prefixed number, which can be automatically added to the front of all the dialed outgoing number.

- (1) Enter the system program Command, then Press # * 27, entering the 1st landline prefixed Number (Maximum 4 digits), then #;
- (2) Dial tone will be heard for successful setting.

Note:

- ① The factory default value of 1st landline prefixed number is None.
- ② **To cancel the 1st Prefixed Number:** # * 27 + #.

5.19 2nd Landline Prefixed Number Setting # * 28 + [2nd Landline Prefixed Number] +

Besides the 1st prefixed number, this setting is to set 2nd prefixed number, which can be automatically added to the front of the dialed number with **0 initial**, that is long distance call. The 2nd prefixed number is added after the 1st prefixed number .

- (1) Enter the system program Command, then Press # * 28, entering the 2nd landline prefixed Number (Maximum 10 digits) then #;
- (2) Dial tone will be heard for successful setting.

Note:

- ① “*” can be inserted between the prefixed number to stand for a pause of 2 seconds.
- ② The factory default value of 2nd landline prefixed number is None.

- ③ To cancel the 2nd Landline Prefixed Number: # * 28 + #.

5.20 Flash Time Setting # * 29 + [Duration Time]

- (1) Enter the system program Command, then press # * 29, then I, I is to indicate the duration and it could be set 3 ~ 9,

I = 3 (100~300ms), I = 4 (100~400ms), I = 5 (100~500ms), I = 6 (100~600ms),

I = 7 (100~700ms) , I = 8 (100~800ms), I = 9 (100~900ms),

- (2) Dial tone will be heard for successful setting.

Note: The default value is (100 ~ 600ms)

5.21 To Switch Between Internal/External Music # * 30 + [0/1]

To select Internal or External Music sources.

- (1) Enter the system program Command, then press # * 30, then I;

I = 0 Internal Music

I = 1 External Music

- (2) Dial tone will be heard for successful setting.

Note: Default is internal music

5.22 Fax Extension Setting # * 31 + [Fax Ext. No.]

When a fax extension is set, the external caller can dial 9 to directly access the fax extension under auto-attendant voice announcement.

- (1) Enter the system program Command, then Press # * 31, then **Fax Extension Number**

- (2) Dial tone will be heard for successful setting.

Note:

- ① No fax extension is set when factory out. **To cancel Fax Extension: # * 31 + #.**
- ② After a fax extension is set, It is recommended to add the message “for fax please dial 9” into the Voice Announcement.

5.23 Door Phone Setting #*32+[1/2]+ [0/1]+[Door Phone Ext. No.]++[Ext. No. of Ringing Ext. 1]++[Ext. No. of Ringing Ext. 2]++...+[Ext. No. of Ringing Ext. n]++#

Up to 2 door phone can be set in the system. Each door phone can have more than one ringing extensions. If no ringing extension is set here, the 1st operator extension will be the default ringing extension. When one extension is set as door phone, it will automatically call its ringing extension(s) when hook on.

- (1) Enter the system program Command, then press #*32, **Sequence No. of Door Phone (1 or 2)**, Ringing mode for the ringing extensions(**0 or 1**, 0 means only the 1st available ringing extension rings, 1 means all the ringing extensions rings together), **Door Phone Ext. No.** and * to finish the setting of Door Phone, then **Ext. No. of Ringing Ext. 1** and * to finish assigning the 1st ringing extension for the door phone, Repeatedly press **Ext. No. of**

Ringng Ext. and * to assign more ringing extensions for the door phone ;

(2) Press # to exit the Extension Number Setting and hear the dial tone.

To Cancel Door Phone:

* 32, Sequence No. of Door Phone (1 or 2), then #.

Note:

① When one or more of the ringing extensions are set as Call Forward, Door phone call will be forwarded according to the Call Forward setting of the 1st ringing extension which is set Call Forward.

② If extension is set as a door phone, then you can't ring the door phone ext. from internal ext.

5.24 Transfer Indication Tone Selecting for DISA Calls **# * 33 + [CO Line No.] + [0/1]**

When an external call comes in, the transfer indication Tone can be either the On-Hold Music or the Ring Back Tone.

(1) Enter the system program Command, then press **# * 33, CO Line No.** (9 is to indicate all the CO lines), then I

I=0: To set the Indication Tone as **Ring Back Tone**

I=1: To set the Indication Tone as **On-Hold Music**

(2) Dial tone will be heard for successful setting.

Note: The factory default value is Ring Back Tone.

5.25 System On-Hold Music Selecting **# * 34 + [Music No. M]**

The system provides 8 kinds of On-Hold music, and the user can select one of them at their option.

(1) Enter the system program Command, then press **# * 34**, then the **Music No. M** (M = 1-8);

(2) Dial tone will be heard for successful setting.

Note: The user may listen to all the On-hold music by the following command: Off hook, press * 7, and the Music No. M (M=1-8).

5.26 Auto Attendant Response Time Setting **# * 35 + [CO Line No.] + [Time]**

When there is no CID function needed, this setting can be used to accelerate the response of auto attendant. When the time is set as 0, the auto-attendant will respond once the ring current is detected and ignores the detection of the CLI number. The time is also used as the maximum CLI number detection time.

(1) Enter the system program Command, then press **# * 35**, then **CO Line No.** and **Time**. Time = 0 , 1 , 2 , ...,9 seconds.

(2) Dial tone will be heard for successful setting.

Note: The default value of the time is 6 seconds.

5.27 DISA No Dialing Processing Mode # * 36 + [0/1]

If DISA call is answered by the system and no digits are entered, the system will transfer the call to the operator extension or terminate the call according to the setting.

- (1) Enter the system program Command, then press **# * 36**, then the **Processing Mode** (Mode = 0 or 1)

Mode = 0, Transfer the call to the operator (default M = 0)

Mode = 1, Terminate the call

When Mode = 0, the system will terminate the call if no digits are entered for 3 times consecutively under voice announcement.

- (2) Dial tone will be heard for successful setting.

Note: The default value is 0 (Transfer the call to the operator)

5.28 Manager and Secretary Pair Setting # * 37+ [Manager Ext. No.] + [Secretary Ext. No.]

When two extensions are set as manager and secretary pair, an external call through auto attendant to the manager extension will be transferred to the secretary extension while the internal call is done as normal.

- (1) Enter the system program Command, then press **# * 37**, then **Manager Ext. No.** and **Secretary Ext. No.**
- (2) Dial tone will be heard for successful setting.

To cancel Manager and Secretary Pair

Under the system program mode, Press **# * 37**, then **Manager Ext. No.** and **#**

5.29 Emergency Call Setting # * 38 + [Group No.] + [Emergency No.] +

Up to 5 groups of Emergency call can be assigned if the system is programmed for toll restriction or being restricted for intercom call only. Each extension can dial emergency number overriding the restriction.

The default value of five groups of emergency No. is as follow:

01: 110

02: 119

03: 120

04: 122

05: None

They can be substituted to match the emergency call of different country.

- (1) Enter the system program Command, then press **# * 38**, **Group No.** (01 ~ 05) ,then **Emergency No.** and **#**
- (2) Dial tone will be heard for successful setting

5.30 Multiple CO Hunting Code Setting **# * 39 + [CO Hunting code] + [CO Line No. 1] + [CO Line No. 2]+... + [CO Line NO.n] + #**

Except for 9 (or 0) as fixed CO hunting code, up to 3 more CO Hunting Code can be set. This function is to enable the user to seize different CO line group by dialing corresponding CO hunting code.

- (1) Enter the system program Command, then Press **# * 39, CO Hunting Code**, then corresponding **CO Line No.(s)** and **#**
- (2) Dial tone will be heard if setting is successful.

Note:

- ① CO hunting code and Co Line No., should be entered as a single digit
- ② In default 9 and 0 are CO Hunting Code and Access code for operator correspondingly
- ③ CO Hunting Code can't be used as the initial digit of Extension No. and vice versa.
- ④ The fixed CO Hunting Code 9 or 0 is defaulted to correspond to all the CO lines. If modification is needed, please do the setting here.

5.31 Hot Line Setting **# * 40 + [Ext. No.] + [Hot Line Ext. No.]**

Hot line allows an extension to call another extension or make an outside call automatically without dialing any digits each time if it is hook off.

- (1) Enter the system program Command, then press **# * 40**, then **Extension No.** and **Hot Line Extension No.** (Extension No. or Virtual Extension No.)
- (2) Dial tone will be heard if setting is successful.

To cancel Hot line setting

Enter the system program Command, then press **# * 40**, then **Extension No.** and **#**.

Note:

- ① If one extension is to be set as hot line calling outside number, virtual extension No. is used to for Hot Line Extension No.. Refer to **Speed Dialing Setting #*42**
- ② When an extension is set as hot line calling, the extension is unable to call other extension, make external call or program any more until the hot line is cancelled. Thus at least one extension can't be set as hot line calling in the system.
- ③ The extension which being set as hot line calling can't do the Hold operation.

5.32 Reserved **# * 41**

5.33 Speed Dialing Setting **#*42+[Group No.]+[Virtual Extension No.]+[External No.]+#**

The setting is to bundle a virtual extension No. with an external No. The user can make a speed dial by dialing the virtual extension number to call the correspondent external No.

- (1) Enter the system program Command, then press **# * 42**, then **Group No.**(01-20), **Virtual Extension No.**, **External No.** and **#**.

(2) Dial tone will be heard if setting successful.

Note:

- ① The virtual extension number should not be the same as the system extension number, otherwise the setting will fail
- ② All the virtual extension numbers are cleared when the extension number length are changed.

5.34 Reserved # * 43—# * 47

5.35 Enable/Disable 1st Landline Prefixed Number # * 48 + [CO Line No.] + [1/0]

This setting is to determine whether to add the prefixed number to the external call through some CO line.

- (1) Enter the system program Command, then press # * 48, then CO line No. and I
 - I=1: Enable prefixed number to the CO line
 - I=0: Disable prefixed number to the CO line
- (2) Dial tone will be heard if setting successful.

5.36 Reserved # * 49—# * 51

5.37 Clear the Extension No. # * 521

- (1) Enter the system program Command, then press # * 521
- (2) Dial tone heard if the setting is successful.

Note: This setting is to reset all the extension number to **00** or **000** or **0000** depending on the extension number length. The setting is used to avoid extension number collision during the Extension No. setting

5.38 Extension Group Setting # * 53 + [Group No.] + [Virtual Ext. No.] + [Ext. No. 1] +[0/1] + [Ext. No. 2]+[0/1]...+[Ext. No. N] +[0/1]+

This setting is to enable a virtual extension number to ring a group of extensions. When the user dials the virtual extension number, the first free extension will ring according to the setting sequence.

- (1) Enter the system program command, then press # * 53, group No. (1-4), Virtual Extension No., Extension No.1, then 0 or 1(0 is to untie the extension from the virtual extension number while 1 is to bundle the set extension(s) with the virtual extension number) to finish setting of the 1st extension. Repeatedly input Extension No. and 0 or 1 to finish setting of other extensions. Totally one virtual extension no. can bundle with 8 extensions.
- (2) Press # to exit the setting and hear the dial tone.

5.39 Remote Programming

EW20 provides remote programming to facilitate the distributor's after-sales service. The function is available no matter the CO line answering mode is set as DISA answering mode or ringing the assigned extension

a. DISA Answering Mode

The external caller calls in on a DISA CO line using a DTMF telephone set.

- (1) The auto attendant responds with voice announcement
- (2) To start up remote programming, the external caller dials # * 10 + system password (00000 as default value) to enter system programming while dial tone is heard.
- (3) Enter required setting item as a local extension would do in programming mode.
- (4) "Di" is heard to indicate a successful setting or "Di Di" to indicate a failiingi setting. No matter whether "Di" or "Di Di" is heard, another setting item can be proceeded to.

b. Ringing the Assigned Extension Mode

- (1) The extension user is talking with the external party.
- (2) The extension user does the Flash operation and hear dialing tone.
- (3) The extension user dial ** and hangs up.
- (4) The external party hears the voice announcement and can do the remote programming just as under DISA answering mode.

Note: Remote programming is not available for voice announcement recording.

6 SLT Extension Operation

6.1 Make An Intercom Call

6.1.1 Common Intercom Call Extension No.

Off Hook to hear a dial tone, then dial extension number.

6.1.2 Call The Operator Extension 0

Off Hook and hear a dial tone, then dial **0**

Note: If 0 is set as CO Hunting Code, 9 is the code to call the operator extension.

6.1.3 Intercom Callback * 5

An extension user may activate the "Callback for Intercom Call" function when calling to a busy extension. As soon as the busy extension becomes idle, the calling party will ring, and after the calling party lifts the handset, the called party will ring together.

- (1) Off Hook, dial extension number, hearing a busy tone;
- (2) Operate "Flash" to hear a dial tone;

- (3) Press * 5 to hear “Do, Do, Do...” confirmed Tone.
- (4) Hang up.

Note:

The Callback for Intercom Call becomes void in one of following three cases

- ① The calling party lifts the handset before the system calls back.
- ② The calling party doesn't lift the handset after ringing back lasting 20 seconds.
- ③ The called party lifts the handset during the ring back to the calling party.

6.1.4 Call the Extension Group Virtual Extension Number

Off Hook to hear a dial tone, then dial virtual extension number. The first free extension will ring according to the sequence in the extension group.

6.2 Make an External Call

6.2.1 CO Line Hunting 9 / 0 or # 4 + [CO Line No.]

This system provides two methods to hunt CO Line.

◆Automatic CO Line Hunting:

- (1) Off hook to hear a dial tone;
- (2) Dial CO line hunting code **0** or **9**, hear CO line dial tone, then dial.

◆Designated CO Line Hunting:

- (1) Off hook to hear a dial tone;
- (2) Press **# 4**, CO Line No. (**1 ~ 4**), hear CO line dial tone, then dialing.

6.2.2 Hot CO Line * 9 + [1/0]

This feature allows the user to access a free CO line automatically once the user lifts the handset and doesn't need to dial CO Line Hunting Code.

Enable Hot CO Line:

- (1) Off Hook to hear a dial tone;
- (2) Press * **91**, then hear the On-Hold music while setting successfully.

Disable Hot CO Line:

- (1) Off Hook to hear a CO Line dial tone;
- (2) Flash to hear a dial tone;
- (3) Press * **90**, then On-Hold music will be heard if setting is accepted

Note:

When the extension is enabled Hot CO Line:

- ① If the user hears the busy tone when off -hook, that means there is no free CO Line. The user can press Flash button to hear the intercom dial tone and make an intercom.
- ② The user can press Flash button to hear the intercom dial tone and do internal operation

after a CO line is automatically accessed.

6.2.3 Trunk Queuing Callback * 5

When there is no idle CO line, the user can use “CO Line Queuing” function to make an appointment for the CO line. As soon as any line becomes idle, the extension will ring, then off hook to hear a CO line dial tone and begin dialing the telephone number.

- (1) Off Hook, Hunt a CO line, Hear busy tone;
- (2) Flash to hear a dial tone;
- (3) Press* 5, hear “Do, Do, Do...” confirmed Tone; then on hook.

Note:

- ① If the user hunts a designated CO line, the ringing back CO line is the designated CO Line.
- ② Callback for Trunk Queuing will not operate on one of following four cases.
 - a. The user lifts the handset before the system calls back.
 - b. The user doesn't lift the handset after ringing back lasting 45 seconds.
 - c. There is an incoming call through the CO line being ringing back to the user.
 - d. If system has only one CO line and the 2nd CO line is not connected or disabled via programming

6.2.4 Last Number Redialing [Redial] Key

- (1) Off Hook to hear a dial tone;
- (2) Press the “Redial” Key of SLT.

6.2.5 CO Line Flash # 59

This feature is to send Flash signal to the CO line to complete some function provided by the carrier such as call waiting.

- (1) While talking with a CO line, Hook flash or press “Flash” Key or recall key;
- (2) When hear a dial tone, press # 59.

Note:

- ① Users are permitted to operate the “CO Line flash” only when 16 seconds later after dialing a minimum 4-digits number;
- ② if the extension is not set any prefixed code, and is also not restricted by special local or prohibited code, the user is permitted to operate the “CO Line flash” without any waiting after dialing a minimum 6-digits number

6.3 Call Transfer / Call Pickup / Call Hold / Retrieve the Held Call/Call Forward

6.3.1 Call Transfer **[Hook Flash / “Flash” Key] + [Extension No.]**

This system provides two kinds of Call Transfer

- Announced Transfer
- Unannounced Transfer

◆ **Announced Transfer:**

Announced Transfer means the transferring extension can notify the receiving extension before actually sending the call.

- (1) While Party A is talking with Party B (either CO Line or Extension), Party A presses Flash button to hear a dial tone, then calls Party C.
- (2) Party A notifies Party C when Party C answers
- (3) After Party A hangs up the previous call, Party B talks with Party C.

◆ **Unannounced Transfer**

Unannounced Transfer lets an extension to transfer the call directly to the receiving extension without prior notification:

- (1) While Party A is talking with Party B (either CO Line or Extension), Party A press Flash button to hear a dial tone.
- (2) Party A calls Party C and hears the Ring Back Tone, then Party A hangs up the call before Party C answers.
- (3) When Party C hook-off, Party B talks with Party C.

Note:

- ① During transferring, if Party C is busy, Party A can press Flash button and call another extension or press Flash button twice to retrieve the call with Party B.
- ② If Party C doesn't answer within 25 seconds, Party B will recall Party A

6.3.2 Call Pickup

6.3.2.1 Directed Call Pickup ***3 + [Extension No.]**

Directed Call Pickup allows the user to answer call that is ringing on another extension.

- (1) While another extension is ringing, the user off-hook to hear a dial tone.
- (2) Press * 3, then ringing extension's number to pick up the call.

6.3.2.2 General Call Pickup *** 0**

This function allows user to pick up call on any ringing extension without need to know the extension number.

- (1) While any extension is ringing, the user off-hook to hear a dial tone.
- (2) Press * 0 to pick up the call.

6.3.3 Call Hold / Retrieve the Held Call Hook Flash / "Flash" Key

- (1) While Party A is talking with Party B, Party A press Flash button to place Party B on hold.
- (2) Party A hears the dial tone and can do other operation while Party B listens to the On-Hold music.
- (3) After Party A finishes operation, Party A can press Flash button again to retrieve the call with Party B.

6.3.4 Call Forward / Do-Not-Disturb

The call can be set to be forwarded to another internal Extension or External number. If external forward option is required, virtual extension number, correspondent to an external number, is used for the Directed Ext. No.. Refer to **Speed Dialing #*42**

When an extension is set as Call Forward or Do-Not-Disturb, each time when the extension is off hook, the confirmed tone is heard before the dialing tone to indicate the extension being in the Call Forward or Do-Not-Disturb status

6.3.4.1 Forward All Call #71 + [Directed Ext. No.] + #

This feature is to forward all incoming calls to another directed extension.

To set Forward All Calls

- (1) Off hook to hear a dial tone;
- (2) Press **# 71**, another directed extension number, and then hear the On-hold music.

To cancel:

Off hook, press **# 71**, local extension number, and then hear the On-hold music.

Or press **# 760**, to cancel the Call-Forwarding and Do-Not-Disturb.

6.3.4.2 Forward The Call When Busy #72 + [Directed Ext. No.] + #

This feature is to forward the incoming calls to another directed extension when the extension is busy.

To set Forward the Call when Busy:

- (1) Off hook to hear a dial tone;
- (2) Press **# 72**, another directed extension number, and then hear the On-hold music.

To cancel:

Off hook, press **# 71**, local extension number, and then hear the On-hold music.

Or press **# 760**, to cancel the Call-Forwarding and Do-Not-Disturb.

6.3.4.3 Forward The Call When No Answer # 73 + [Directed Ext. No.] + #

This feature is to forward the incoming calls to another directed extension when the call is not answered.

To set Forward the Call when No Answer:

- (1) Off hook to hear a dial tone;
- (2) Press **# 73**, another directed extension number, and then hear the On-hold music.

To cancel:

Off hook, press **# 71**, local extension number, and then hear the On-hold music.

Or press **# 760**, to cancel the Call Forward and Do-Not-Disturb.

6.3.4.4 Intercom Call Forward to External Number

Off Hook press **#*10+Password (00000) + #*42 + Group No + Virtual ext + External No+#**

(Refer to **Speed Dialing #*42**)

Note:

Group = 01~20

Virtual Extension No. = should not be the same as the extension number

External No. = mobile or land line

Example:-

- (1) Off Hook press **#*10+password(00000) + #*42 + 01+555 + 0402732238 + #**
Ext. 807 enables ECF to virtual Ext. 555. then to enables Ext. 807 to ECF
- (2) Then:

To set Forward All Calls to External Number

Off Hook then press **#71+555+#** , If successful you will hear music on hold.

Or To set Forward The Call to External Number When Busy

Off Hook then press **#72+555+#** , If successful you will hear music on hold.

Or To set Forward The Call to External Number When No Answer

Off Hook then press **#73+555+#** , If successful you will hear music on hold.

To cancel Forward All Calls to External Number:

Off hook, press **# 71**, local extension number, and then hear the On-hold music.

Or press **# 760**, to cancel the Call-Forwarding and Do-Not-Disturb

To cancel Forward The Call to External Number When Busy:

Off hook, press **# 72**, local extension number, and then hear the On-hold music.

Or press **# 760**, to cancel the Call-Forwarding and Do-Not-Disturb

To cancel Forward The Call to External Number When No Answer:

Off hook, press **# 73**, local extension number, and then hear the On-hold music.

Or press **# 760**, to cancel the Call-Forwarding and Do-Not-Disturb

6.3.4.5 Do-Not-Disturb # 76 + [1/2]

Enable Do-Not-Disturb:

- (1) Off hook to hear a dial tone;

(2) Press **# 761**, and then hear the On-hold music.

Disable Do-Not-Disturb:

Off hook, press **# 762**, and then hear the On-Hold music.

Or press **# 760**, to cancel the Call Forward and Do-Not-Disturb.

6.4 Inquiry

6.4.1 Extension Port No. & Extension No. Inquiring * 6

(1) Off Hook to hear a dial tone

(2) Press * #, hear “Do, Do, Do...” confirmed Tone; then hang up.

(3) The extension will ring and, the LCD displays this extension’s port No.(the first two digits) and the extension No.

6.4.2 System Software Version Inquiring *

(1) Off Hook to hear a dial tone.

(2) Press * #, hear “Do, Do, Do...” confirmed Tone; then hang up.

(3) The extension will ring and the LCD displays the system’s Software Version.

6.5 Forced Account Code

6.5.1 Use Individual Account # 7 * + [Individual ID] + [Individual PW]

(1) Off hook to hear a dial tone;

(2) Press **# 7 ***, Individual ID, and Individual Password, “Do, Do, Do, Do” confirmed Tone is heard to indicate correct input and then the intercom dial tone is heard, or busy tone is heard if the input is incorrect.

(3) When hearing the intercom dial tone, make the call as normal

Note:

While using individual account, the user can press Flash button to hear “Do, Do, Do, Do” confirmed Tone and then the intercom dial tone to make a new call .

6.5.2 Individual Account Password Changing # 7 * # # + [New Individual PW]

Users can change the Individual Account password, **operation as following:**

(1) Off hook to hear a dial tone;

(2) Press **# 7 ***, Individual ID, and Individual Password, “Do, Do, Do, Do” confirmed Tone is heard to indicate correct input and then the intercom dial tone is heard, or busy tone is heard if the input is incorrect.

(3) When hearing the intercom dial tone, press **# 7 * # #**, and a 4-digits new Individual

password, then hear a dial tone.

6.6 Three-Way Conference

Three-way conference enables an extension to talk with 1 external party and 1 internal extension or with 2 external parties simultaneously. To establish a three-way conference

- (1) Establish an internal call or outside call.
- (2) Press Flash button to put the call on hold and hear the dial tone.
- (3) Press * 8.
- (4) Dial tone is heard.
- (5) Make the second call with another external party or internal extension.
- (6) Press Flash button and the conference is activated.

6.7 Call Split

Call split enables an extension to talk with 1 external party and 1 internal extension or with 2 external parties alternately.

- (1) Make an internal call or external call.
- (2) Press Flash button to put the call on hold and hear the dial tone.
- (3) Make the second call with another external party or internal extension.
- (4) Press Flash button to talk with the two party alternately.

Appendix: Settings & Operation

	Settings	Operation Steps
System Setting	Enter the System Program Mode	# * 10+[System Password]
	CO line connection setting	# * 11+[CO Line No.]+[1/0]
	Answer Mode for CO line incoming Call	# * 12+ [CO Line No.]+[answer mode M]
	Record/Play of the Voice Announcement	# * 13+[Record/Play1/2]+[Segment 1/2/3]
	Ringing Extension Assignment	# * 14+[Ext. No.]+[CO Line No.]+[1/0]
	1 st Operator Extension Setting	# * 15+[Extension No.]
	2 nd Operator Extension Setting	# * 16+[Extension No.]
	Extension COS Assignment	# * 17+[Ext. No.]+[Ext. Grade M]
	Extension No. Length Setting	# * 18+[Ext. No. Length]+#
	Extension Number Setting	# * 19+[Ext. Port No.]+ [Ext. No.]
	System Reset	# * 20+[System Password]
	System Password Changing	# * 21+[new System Password]
	CO Line hunting Code Setting	# * 22+[9/0]
	Availability of Ext. to access CO line	# * 23+[Ext. No.]+[CO Line No.]+[1/0]
	Prohibited Code Setting	# * 24+[Group No.]+[Prohibited Code]+[#]
	Special Local Call No. Setting	# * 25+[Group No.]+[Special Local Call No.]+[#]
	Forced Account Setting	# * 26+[Individual ID]+[Individual PW]+[COS]
	1 st Prefixed Number Setting	# * 27+[1st Prefixed Number] + #
	2 nd Prefixed Number Setting	# * 28+[2nd Prefixed Number] + #
	Flash/Hold time Duration Setting	# * 29+[Duration]
	Internal/External Music Resources Switch	# * 30+[0/1]
	Fax Extension Setting	# * 31+[Fax Ext. No.]
	Door Phone Setting	# * 32+[1/2]+[0/1]+[Door Phone Ext. No.] + * + [Ext. No. of Ringing Ext.1] + * + [Ext. No. of Ringing Ext.2] + * + ... + [Ext. No. of Ringing Ext. n] + * + #
	Transfer Indication Tone Selecting	# * 33+[CO Line No.]+[0/1]
	System On-Hold Music Selecting	# * 34+[Music No. M]
	Auto Attendant Response Time Setting	# * 35+[CO Line No.]+[Time]
	DISA No Dialing Processing Mode	# * 36+[0/1]
	Manager and Secretary Pair Setting	# * 37+[Manager Ext. No.]+[Secretary Ext.No.]
	Emergency Call Setting	# * 38+[Group No.]+[Emergency No.]+#
	Multiple CO Hunting Code Setting	# * 39+[Group No.]+[Emergency No.]+#
Hot Line Setting	# * 40+[CO Hunting code]+[CO Line No.1] + [CO Line No.2]+... +[CO Line NO.n]+#	
Reserved	# * 41	
Speed Dialing Setting	# * 42+[Group No.]+[Virtual Extension No.] + [External No.]+#	
Reserved	# * 43-# * 47	
Enable/Disable 1 st Prefixed Number	# * 48+[CO Line No.]+[1/0]	
Reserved	# * 49-# * 51	
Clear The Extension No.	# * 521	

	Extension Group Setting	# * 53+[Group No.]+[Virtual Ext. No.]+[Ext. No.1]+[Ext. No.2]+...+[Ext. No. N]+[0/1]
Make An Intercom Call	Common Intercom Call	[Extension No.]
	Call The Operator Extension	0 or 9
	Intercom Callback	* 5
	Call The Extension Group	Virtual Extension Number
Make An External Call	CO Line Hunting	9 / 0 or # 4 + [CO Line No.]
	Auto-Accessing CO Line	* 9+[1/0]
	Trunk Queuing Callback	* 5
	Last Number Redial	[Redial] Key
	CO Line Flash	# 59
Call Transfer		[Hook Flash / "Flash" Key]+[Extension No.]
Call Pickup	Directed Call Pickup	*3+[Extension No.]
	General Call Pickup	* 0
Call Hold/Retrieve The Held Call		Hook Flash / "Flash" Key
Call Forward	Forward All Call	# 71+[Directed Ext. No.]+#
	Forward The Call When Busy	# 72+[Directed Ext. No.]+#
	Forward The Call When No Answer	# 73+[Directed Ext. No.]+#
	Cancel Call Forward	# 71+[Local Ext. No.]+# or # 760
DND	Do-Not-Disturb	# 761
	Disable Do-Not-Disturb	# 760 or # 762
Inquiry	Extension Port No. & Extension No. Inquiring	* 6
	System Software Version Inquiring	* #
Forced Account	Individual Account using	# 7*+[Individual ID]+[Individual PW]
	Individual Account Password Changing	Under Individual Account using mode # 7*##+[New Individual PW]



EW20 TELEPHONE SWITCHING SYSTEM
USER MANUAL

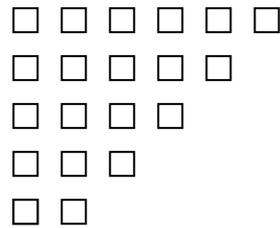


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