



User Manual EM60



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1 Picture

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2 Table

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3 Safety Instruction

Please read the following safety notices before installing or using this unit. They are crucial for the safe and reliable operation of the device.

- Please use the external power supply that is included in the package. Other power supply may cause damage to the phone and affect the behavior or induce noise.
- Before using the external power supply in the package, please check the home power voltage. Inaccurate power voltage may cause fire and damage.
- Please do not damage the power cord. If power cord or plug is impaired, do not use
 it because it may cause fire or electric shock.
- Do not drop, knock or shake the phone. Rough handling can break internal circuit boards.
- This phone is designed for indoor use. Do not install the device in places where there is direct sunlight. Also do not put the device on carpets or cushions. It may cause fire or breakdown.
- Avoid exposure the phone to high temperature or below 0[™]C or high humidity.
- Avoid wetting the unit with any liquid.
- Do not attempt to open it. Non-expert handling of the device could damage it.
 Consult your authorized dealer for help, or else it may cause fire, electric shock and breakdown.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean it.
 Wipe it with a soft cloth that has been slightly dampened in a mild soap and water solution.
- When lightning, do not touch power plug, it may cause an electric shock.
- Do not install this phone in an ill-ventilated place. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents.



4 Overview

4.1 Overview

Thank you for choosing the Fanvil EM60 extension station. The EM60 is designed to provide a more effective and convenient office when using high-end phones such as V66/V66 Pro; the extension station can dynamically display the setting status of 20 DSS buttons per page, and supports 3 page turning. Each phone supports up to 4 EM60 cascading, a total of 240 DSS buttons that can be customized by the user, and the page-turning shortcut keys allow users to quickly switch to the specified page. Each DSS key can display green, red and yellow LED indicators to reflect the current state of the key.

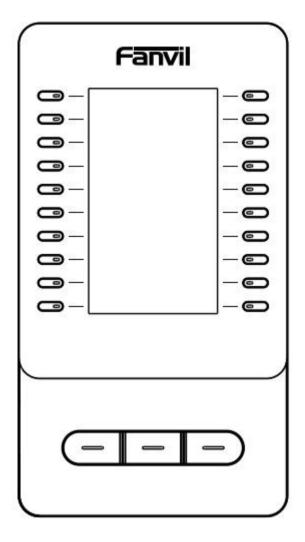
Thank you for choosing the Fanvil EM60 extension station. The EM60 is designed to provide a more effective and convenient office when using high-end phones such as J6; the extension station can dynamically display the setting status of 20 DSS buttons per page, and supports 3 page turning. Each phone supports up to 4 EM60 cascading, a total of 240 DSS buttons that can be customized by the user, and the page-turning shortcut keys allow users to quickly switch to the specified page. Each DSS key can display green, red and yellow LED indicators to reflect the current state of the key.

In order to help some interested users better understand the details of the product, this user manual can be used as a reference guide for the use of the device. This document may not be applicable to the latest version of the software. If you have any questions, you can use the help prompt interface of the device phone, or download and update your user manual from the official website of the manufacturer.

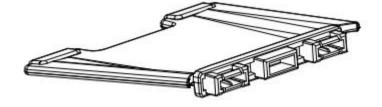


4.2 Packing Contents

■ Expansion Module



■ Stand







■ Power Adapter



■ USB Cable

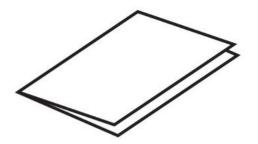


■ Screw





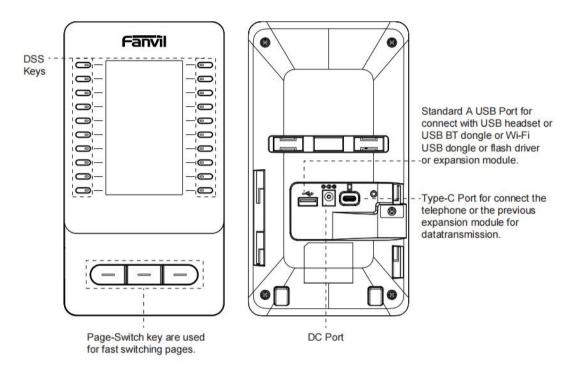
■ Quick Installation Guide





5 Introduction to the User





Picture 1 - Instruction of Keypad and Interface

The figure above shows the button layout of the expansion station. Each button provides its own specific function. The user can refer to the description of the buttons in the illustrations in this section to operate.

5.2 EXT Installation

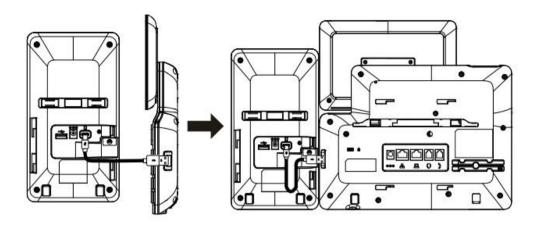
Please follow the instructions in the picture below to install the device.

Connection the device

When connecting a single expansion module:

As shown in the diagram below, use a USB cable to connect the expansion module to the telephone, as shown below:

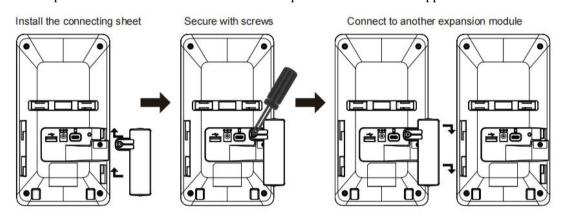




Picture 2 - Connect the EXT

• When connecting multiple expansion modules:

As shown in the diagram, install the connecting sheet onto one expansion module and secure it with the provided screw. Then attach the second expansion module to the opposite side.

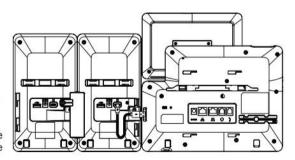


Picture 3 - Connect two EXT

Your phone and the two expansion modules are connected as shown below:

Note: This IP phone supports cascading up to 4 expansion modules. The connection rules for the power adapter (5V 1A) are as follows:

- When cascading 1-2 expansion modules: Connect the power adapter only to the last-stage expansion module.
- •When cascading 3-4 expansion modules:Connect one power adapter to both the 2nd-stage and the last-stage expansion modules.

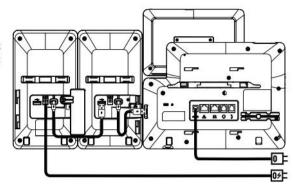


Picture 4 - Connect Power



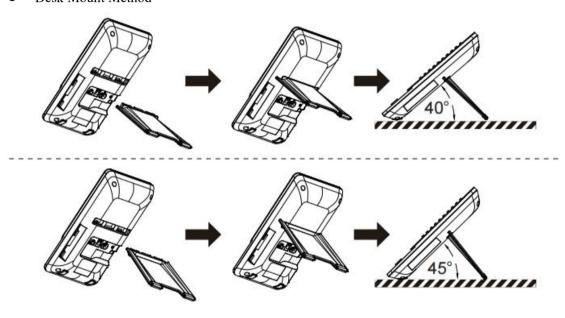
Connecting the USB Cable:

Connect the USB port of the IP phone and the Type-C port of the first module using a USB cable. If you want to connect another module, connect the USB port of the first module and the Type-C port of the second module using a USB cable. And a power adapter is used to connect to the DC port of the previous expansion module to supply power for it. As shown helpow.



Picture 5 - Connect USB cable/power

Desk Mount Method



Picture 6 - Mounting Bracket

5.3 WEB Configuration

After the extension station is successfully connected, the webpage visits the Function Key> EXT key, and the serial numbers of all connected extension stations, as well as the corresponding extension station version and connection status will be displayed on the page. The status of the successfully connected extension station is **connected**.





Picture 7 - WEB Connection Status



6 Expansion Board Settings

6.1 Backlight/Power Saving Settings

The expansion module supports setting the backlight brightness, which can be configured in **Function Key** > **EXT Key** > **Screen Configuration** to adjust the module's own brightness in use and idle brightness. The setting parameters are as follows:

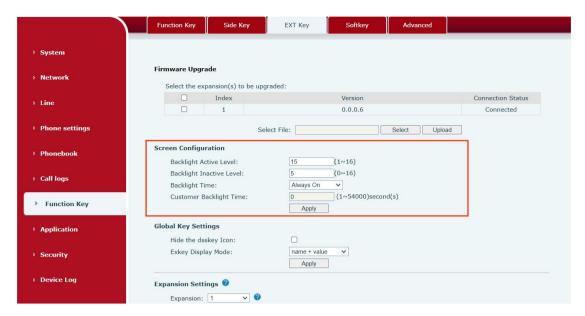
Table 2 - Backlight Settings

Parameters	Description
De aldiculat A ations I arred	It is adjustable from Level 1 to Level 16,
Backlight Active Level	with a default brightness of Level 16.
Backlight Inactive Level	It is adjustable from Level 0 to Level 16,
	with a default brightness of Level 4.
Rooklight Tim	It is adjustable to Always On / 15s / 30s /
Backlight Tim	1min / 2min / 5min / 10min / 30min / 1h / 2h
	/ 3h / 6h / 15 / Custom, with a default
	setting of 1 minute.
Customor Racklight Time	It is adjustable from 1s to 54,000s, with a
Customer Backlight Time	default setting of 60s

The expansion module supports an power saving mode. The configuration items for the power saving mode are consistent with those of the host's power saving settings, and the host side controls whether to enter hibernation through its configuration—no separate configuration item for EM60 will be added. The host's energy-saving mode can be controlled to enable both the host and the expansion module to enter hibernation simultaneously.

The adjustment location for the host's power saving mode is in **Phone Settings** > **Advanced** > **Screen Configuration**.





Picture 8 - Backlight



Picture 9 - Power Saving

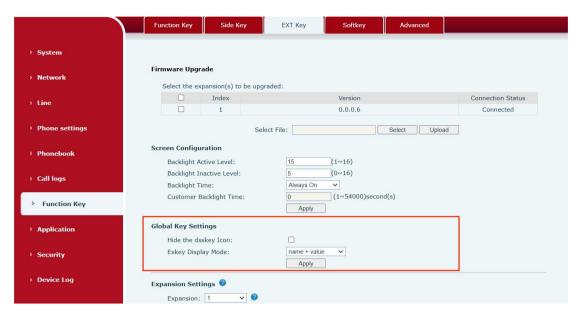
6.2 Display Configuration

The expansion module supports display effect settings, which can be configured by accessing **Function Key > EXT Key > Global Key Settings**. The specific functions are as follows:

Table 3 - Display Configuration

Parameters	Description
	After enabling this function, the Dsskey
Hide Dsskey Icon	icons will be hidden, leaving only the text
	content displayed.
Exkey Display Mode	You can choose to display only the name,
	or display both the name and the value.





Picture 10 - Display Configuration



7 DSS Key

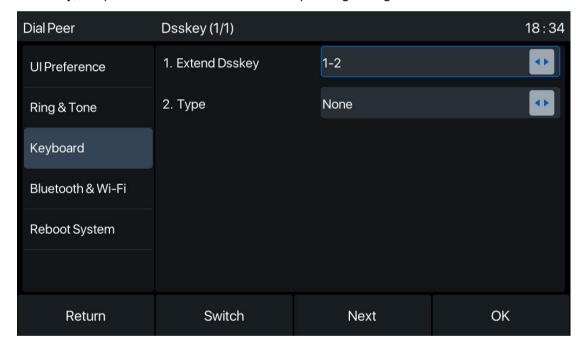
7.1 DSS Key

Each page of the expansion table supports 20 DSS Keys, and 3 pages support a maximum of 60 DSS Keys. You can configure the DSS Key through the user interface of the phone, or configure the DSS Key through the web user interface.

The following sections explain in detail how to configure the DSS Key of the extension station through the web user interface and the phone LCD interface.

7.1.1 DSS Key Configuration

Press the unconfigured DSS Key of the extension station, or long press the configured DSS Key, the phone LCD will enter the corresponding configuration interface.



Picture 11 - Phone Dss key

7.1.2 DSS Key Configuration

Please press the downward navigation button on the phone to view the webpage IP address; Please open your browser and enter your IP address in the address bar (e.g. http://192.168.1.1 or 192.168.1.1). The default username and password are both "admin".

The DSS key configuration includes:

Memory key



- BLF/NEW CALL
- ➤ BLF/BXFER
- ➤ BLF/AFER
- > BLF/CONF
- ➤ BLF/DTMF
- Presence
- Voice Mail
- > Speed Dial
- > Intercom
- Call Park
- Call forward
- Line
 - > AUTO
 - ➤ SIP1/SIP2/SIP3...SIP19/SIP20/Moblie
- Key Event
 - Voice Mail
 - Do -not-disturb
 - Call hold
 - > Call transfer
 - PhoneBook
 - > Redail
 - ➢ Pick up
 - > Join
 - Call forward
 - Call Logs
 - ➤ Flash
 - > Memo
 - > Headset
 - > Release
 - Lock phone
 - ➤ SMS
 - Call Back
 - ➤ Hide DTMF
 - > Intercom
 - Group Listening
 - > Prefix
 - ➤ Hot Desking
 - Agent



- ➤ End
- Disposition
- Escalate
- Trance
- Handfree
- Answer Key
- Private Hold
- Local Contacts
- > LDAP Group
- > XML Group
- > Broadsoft Group
- Record
- Auto Headset
- > visual park
- DTMF
- URL
- BLF List
- MCAST Paging
- Action URL
 - ➤ http(s) Get
 - ➤ http(s) Post
- XML Browser
- MCAST Listening

The following table is the function description of each configuration item

Table 4 - DSS key

Parameters	Description
	BLF : It is used to prompt user the state of
	the subscribe extension, and it can also
	pick up the subscribed number, which help
	user monitor the state of subscribe
	extension (idle, ringing, a call). There are 3
Memory Key	types for one-touch BLF transfer method.
	p.s. User should enter the pick-up number
	for specific BLF key to fulfill the pick-up
	operation.
	Presence: Compared to BLF, the
	Presence is also able to view whether the



	user is online.
	Note: You cannot subscribe the same
	number for BLF and Presence at the same
	time
	Speed Dial: You can call the number
	directly which you set. This feature is
	convenient for you to dial the number
	which you frequently dialed.
	Intercom: This feature allows the operator
	or the secretary to connect the phone
	quickly; it is widely used in office
	environments.
	Voice Mail: Click to immediately dial out
	the corresponding voice mail access code.
	Call Park: Click to park the call on the
	server.
	Call Forwarding: When the phone
	receives an incoming call, you can click to
	quickly forward the number to the
	subscribed number.
Line	It can be configured as a Line Key. User is
Line	able to make a call by pressing Line Key.
	User can select a key event as a shortcut
Kay Eyest	to trigger.
Key Event	For example: MWI / DND / Release /
	Headset / Hold / etc.
	It allows user to dial or edit dial number
DTMF	easily.
	,
URL	Open the specific URL directly.
BLF List	Subscribe to one BLF account group at a
	time
MCAST Paging	Configure the multicast address and voice
	codec. The user can initiate multicast by
	pressing this key
Action URL	The user can use a specific URL to make
	basic calls to the phone.



XML browser	Users can set the DSS Key for specific
	URL download and other operations.
MCAST Listening	Configure the multicast address and voice
	code, when the multicast is playing, press
	the button to manually monitor the
	multicast

The following table is a summary of the LED status of each function key.

Table 5 - Key Event LED status

Туре	LED Light	State
Line Key	Off	Line inactive
	Green On	Line ready (Registered)
	Green Blinking	Ringing
	Red Blinking	Line is trying to register
	Red Blinking	Line error (Registration failure)
	Red On	Dialing/Line in use (Talking)
	Yellow Blinking	Call holding
BLF	Green On	Subscription number is idle.
	Red On	Subscription number is busy.
	Red Blinking	Subscription number is dialing.
	Off	Subscription number is unavailable.
	Green On	Subscription number is idle.
Presence	Red On	Subscription number is busy.
	Red Blinking	Subscription number is dialing.
	Off	Subscription number is unavailable.
DND	Red On	DND on



	Off	DND off
MWI -	Green Blinking	New voice message
	Off	No New voice message
Page 1/2/3	green	The current page

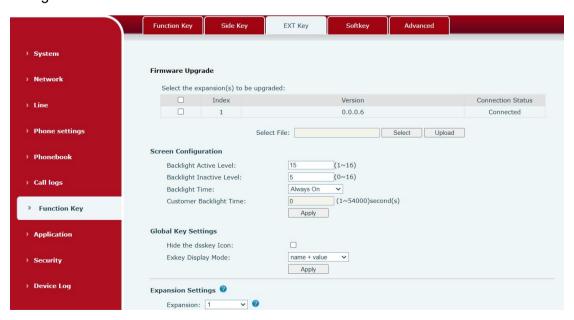
7.2 DSS Key Steps

7.2.1 Web Configurations

- 1. When the extension station is not connected, the webpage visits Function Key
- > EXT key, and it prompts "No expansion module connected! Please connect one or more units then refresh this page."
- 2. You can choose each expansion station with serial number from 1 to 4. Expansion station serial number: The first expansion station connected to the phone is serial number 1, and the others are 2, 3 and 4.
- 3. Select the page that needs to be configured for the corresponding expansion station.

An expansion station supports the configuration of 3 pages of shortcut keys.

4. Configure the submit key of the shortcut key, and the customized shortcut key configured after submission can take effect.



Picture 12 - EXT Key (1)



7.2.2 Memory key Configurations

The following steps are required:

- 1. Select [Function key] >> [EXT Key]
- 2. Select [Memory key] from the drop-down list in the type column
- 3. Fill in the relevant information in the name field (eg:jackey)
- 4. Add the corresponding phone number in the value (eg: 4343)
- 5. Select the subtype you want to set in the subtype drop-down (for example: BLF/NEW CALL--indicator prompt/call)
- 6. You can select the line you want to set in the line out. The default is AUTO automatic selection (the indicator will not light up initially when AUTO is selected, and it will light up only after the corresponding line is selected)
- 7. Finally choose [Submit]



Picture 13 - EXT Key (2)

7.2.3 Line Configurations

- 1. Select [Function key] >> [EXT Key]
- 2. Select [Line] in the type column drop-down
- 3. Fill in the relevant information in the name column (eg: jackey)
- 4. Select the subtype you want to set in the subtype drop-down (for example: BLF/NEW CALL--indicator prompt/call)



5. You can select the line you want to set in the line out. The default is AUTO automatic selection (the indicator will not light up initially when AUTO is selected, and it will light up only after the corresponding line is selected)

6. Finally choose [Submit]



Picture 14 - EXT Key (3)

7.2.4 Key Event Configurations

- 1. Select [Function key] >> [EXT Key]
- 2. Select 【Key Event】 in the type column drop-down
- 3. Fill in the relevant information in the name field (eg:jackey)
- 4. Select the sub-type you want to set in the sub-type drop-down list (eg:Do -not-disturb/MWI/Hold Call...)
- 5. Finally choose [Submit]





Picture 15 - EXT Key (4)

7.2.5 DTMF Configurations

- 1. Select [Function key] >> [EXT Key]
- 2. Select 【DTMF】 in the type column drop-down
- 3. Fill in the relevant information in the name field (eg:jackey)
- 4. Add the corresponding phone number in the value (eg: 123456)
- 5. Finally choose 【Submit】



Picture 16 - EXT Key (5)



7.2.6 URL/Action URL/XML Browser Configurations

The following steps are required:

- 1. Select [Function key] >> [EXT Key]
- 2. Select 【URL】 / 【Action URL】 in the type column
- 3. Fill in the relevant information in the name field (eg:ldap)
- 4. Fill in the URL of the relevant configuration in the value (for example: http://192.168.1.1/...)
- 5. Configure Action URL, select http(s) get /http(s) post in subtype
- 6. Finally choose [Submit]



Picture 17 - EXT Key (6)

7.2.7 MCAST Configurations

- 1. Select [Function key] >> [EXT Key]
- 2. Select 【MCAST Paging】 in the drop-down list of the type
- 3. Fill in the relevant information in the name field (eg:jackey)
- 4.Fill in the relevant configured multicast address and port in the value (eg:239.1.1.4:1371)
- 5. Select the subtype you want to set in the subtype drop-down (eg:G.711U/G.711A/G.726-16...)
- 6. Finally choose [Submit]



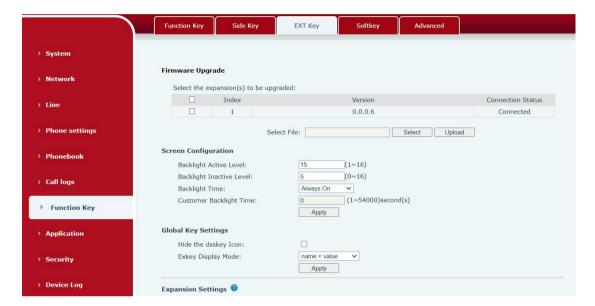


Picture 18 - EXT Key (7)



8 Firmware Upgrade

Visit the Function key>>EXT Key page on the web, Under the 【Firmware Upgrade】 module, check the box before the serial number of the expansion unit that needs to be upgraded, click 【Select】 select the firmware of the expansion unit, and click 【Upload】 to upgrade.



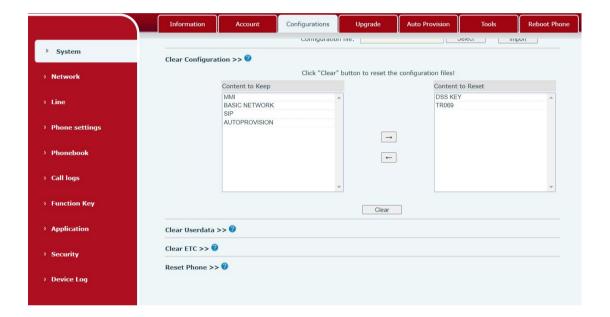
Picture 19 - EXT Firmware Upgrade



9 Reboot Phone

Resetting Device to Factory Default will erase all the user's configuration, preference, database and profiles on the device and restore the device back to the state as factory default.

Visit the System>Configurations>Reset Phone page on the web, click the [Reset] button, and the phone and extension station will be restored to factory settings together.



Picture 20 - Reboot Phone



10 Common Trouble Cases

10.1 Device could not boot up

- 1. Please check whether the power supply of the expansion unit is loose.
- 2. Confirm that the voltage and current of the provided power adapter meet the specifications of this product.
- 3. Confirm whether the power cord is damaged.

10.2 Connection failure

- 1. Please check if the extension station is properly connected to the phone.
- 2. Please check if the phone is connected to the network.

10.3 Factory Reset

1. When you reset the phone to factory settings, the connected expansion station configuration will also be cleared.