

How to update UDS/UDT Firmware

(KX-UDS/UDT series)

No. 42-001

August 21 , 2012

Ver.1.0

Panasonic Corporation

Abstract about this document

This document describe about procedure for Firmware update

Revision history

Date	Version	Revision	Firmware version
Aug 21, 2012	Ver. 1.0	Initial Release	All versions



Outline of Firmware Update

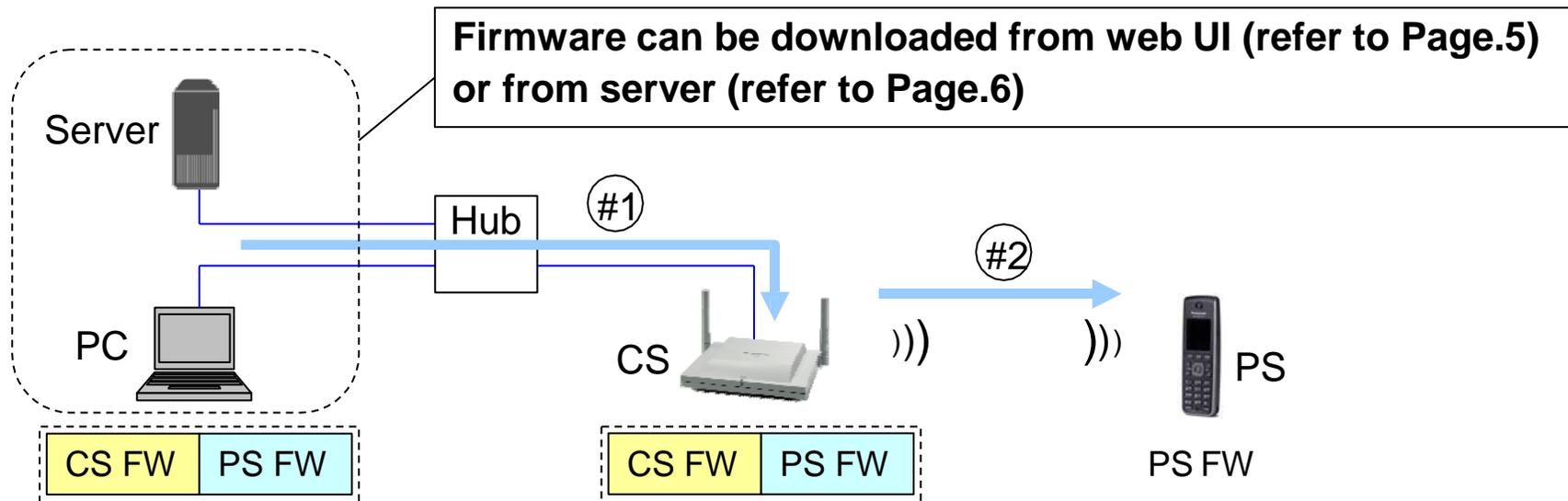


Outline

<Step1> CS Download Firmware



<Step2> PS Download Firmware



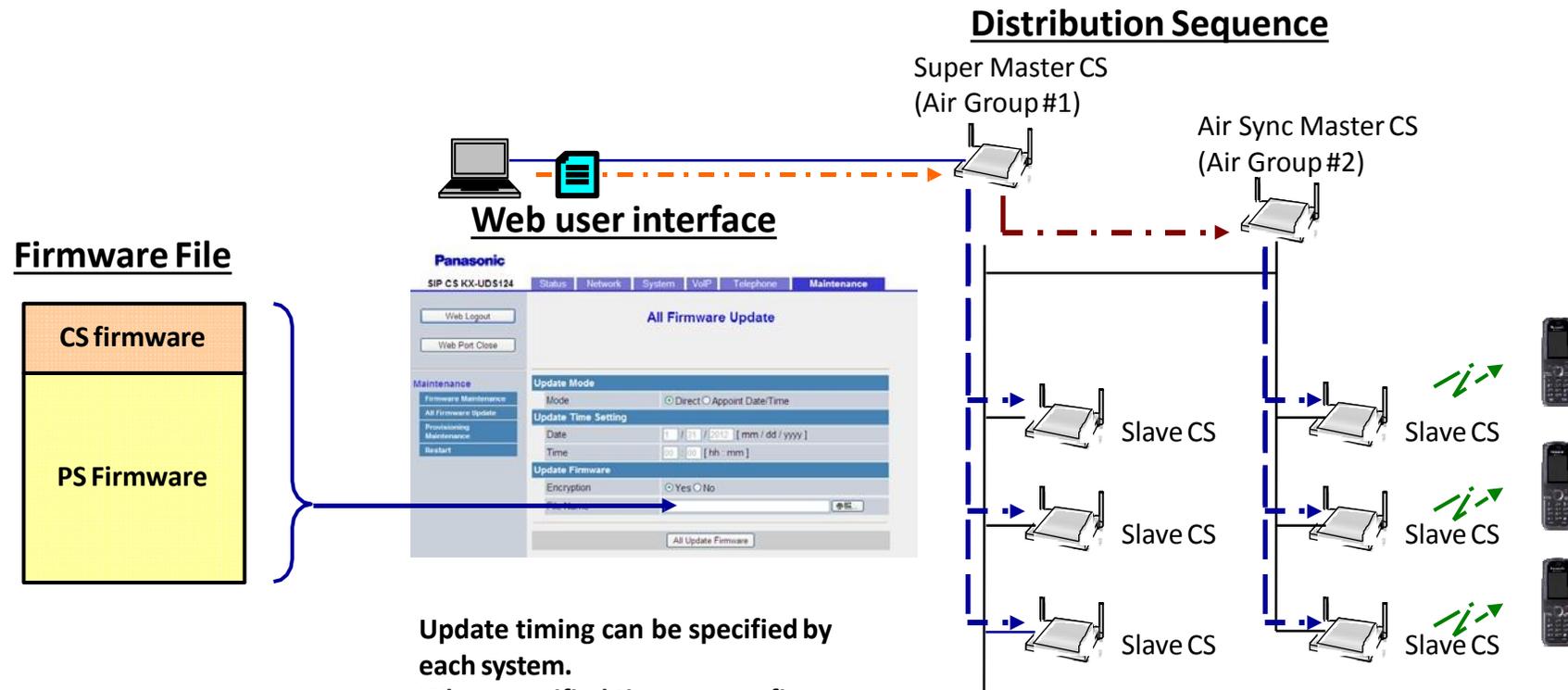
#1 : FW (Firmware) is released as a file which includes CS-FW and PS-FW.

This packed file is imported into CS via network, and CS is upgraded with CS-FW.

#2 : PS receives PS-FW from CS by air (Air Download), and upgrade itself.

Only registered PS can start air download.

Outline - FW update from Web UI



Update timing can be specified by each system.
When specified time comes, firmware file downloaded beforehand will become effective, and it is distributed to owned master/slave.

1. Super Master distributes firmware data to each Master CS.
2. Each master CS distributes firmware data to owned Slave CS step by step.
3. Update PS firmware through radio.

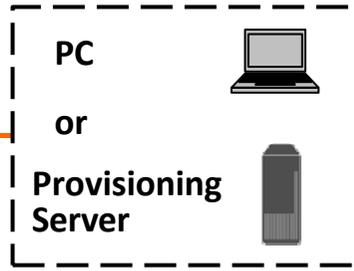
Note: CS firmware is download at first and then CS resets.

It will take approx. 10minutes per one CS to download the firmware.

Outline - FW update from File server

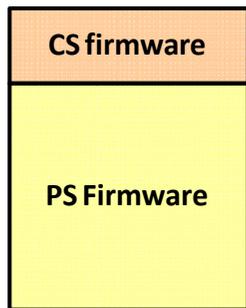
Provisioning File

```
FIRM_VERSION  
="xx.xxx"  
FIRM_FILE_PAT  
H="http://  
xxxxx"
```

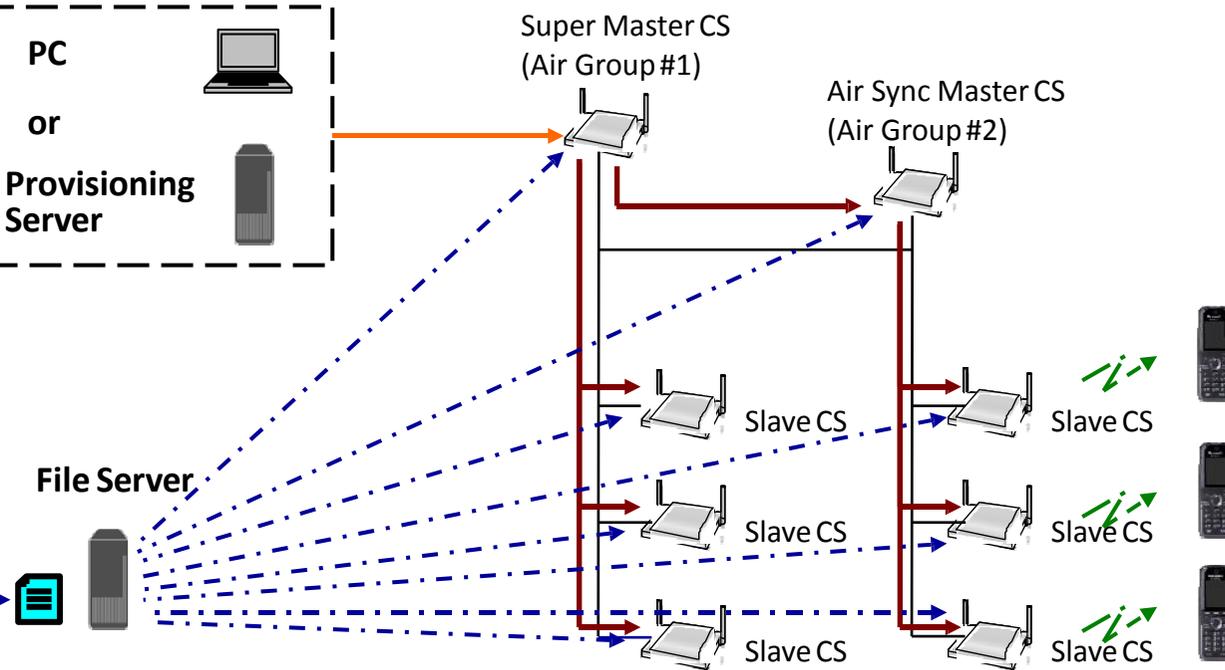


Distribution Sequence

Firmware File



File Server



Update timing is corresponding to provisioning timing

1. Super Master distributes configuration data to owned each CS.
2. Each CS will download firmware data from file server.
3. Update PS firmware through radio.

How to confirm Firmware version (in Web UI)

SIP CS KX-UDS124 | **Status** | Network | System | Maintenance

Web Logout
Web Port Close

Status
Version Information
Network Status

Version Information

CS Version Information

Model	KX-UDS124
Operating Bank	Bank2
IPL Version	01.09
Firmware Version	Bank1: 00.123 Bank2: 01.002
VoIP Version	02.33f.1925

PS Version Information (Model 1)

Model	KX-UDT111
Firmware Version	01.08.000

PS Version Information (Model 2)

Model	KX-UDT121
Firmware Version	01.08.000

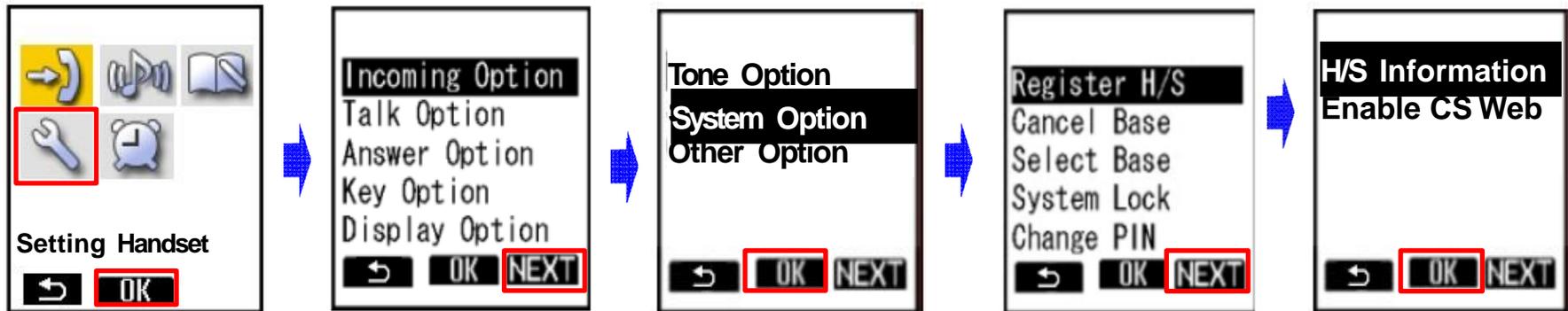
PS Version Information (Model 3)

Model	...
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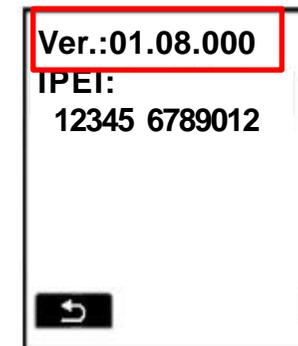
Firmware File

- CS firmware
- PS Firmware

How to confirm PS Firmware version (in PS menu)



1. Turn on the PS.
2. Press [Menu] or the [CENTER] navigation key.
3. Select "Setting Handset" and then press [OK].
4. Press [NEXT].
5. Select "System Option" and then press [OK].
 - You may need to enter a system password to access this menu.
6. Press [NEXT] to display the second screen, select "H/S Information", and then press [OK].
7. When the operation is complete, Firmware version and IPEI are displayed.





<Step.1> CS Download Firmware

<Step.2> PS Download Firmware

<Step1 (1)> How to download FW into CS (with Web UI)

1. Log in to the Super Master CS [ID:admin / Password:adminpass]

Refer to Appendix about “How to open Web port” and “How to find out IP address of Super master CS”.

The screenshot shows the Panasonic SIP CS KX-UDS124 Web UI. The 'Maintenance' tab is selected, and the 'All Firmware Update' option is highlighted. The 'Update Mode' is set to 'Direct', and the 'File Name' field is empty. The 'All Update Firmware' button is highlighted.

[Direct]
CS reboots immediately after download, and new FW starts to control the CS after reboot. Also it starts to distribute new FW to other CSs.

[Appoint Date/Time]
CS reboots appointed time after download, and new FW starts to control the CS after reboot. Also it starts to distribute new FW to other CSs.

2. Go to [Maintenance] -> [All Firmware Update]
3. Specify the File of new Firmware at [File Name].
4. Press [All Update Firmware]

Then Super master CS updates the FW according to the sequence shown in Page.5

Note: Super master CS turns off its LED while it is receiving the FW from PC. The other CS changes its LED to orange once and then change it green again while it is receiving the FW from super master.

<Step1 (2)> How to download FW into CS (with Server)

Set file path with Web UI

1. Log in to the Super Master CS [ID:admin / Password:adminpass]

Refer to Appendix about “How to open Web port” and “How to find out IP address of Super master CS”.

The screenshot shows the Panasonic SIP CS KX-UDS124 Web UI. The top navigation bar includes tabs for Status, Network, System, VoIP, Telephone, and Maintenance (highlighted with a red box and number 2). The left sidebar has a 'Maintenance' section with 'Firmware Maintenance' (highlighted with a red box and number 2) and other options like 'All Firmware Update', 'Provisioning Maintenance', and 'Restart'. The main content area is titled 'Firmware Maintenance' and contains the following settings: 'Enable Firmware Update' with radio buttons for 'Yes' (selected) and 'No'; 'Firmware File URL' with an empty text input field (highlighted with a red box and number 3); and 'PS Update Type' with radio buttons for 'Automatic' (selected) and 'Manual'. At the bottom, there are 'All Save' (highlighted with a red box and number 4) and 'Cancel' buttons.

2. Go to [Maintenance] -> [Firmware Maintenance]
3. Specify [Firmware File URL]
4. Press [All Save]

Note:
“PS update Type”
can be selected here.
Details are explained
in page.13.

Super master CS updates the FW according to the sequence shown in Page.6.

<Step1 (2)> How to download FW into CS (with Server)

Set file path with **Configuration file**

1. Log in to the Super Master CS [ID:admin / Password:adminpass]

Refer to Appendix about “How to open Web port” and “How to find out IP address of Super master CS”.

Panasonic
SIP CS KX-UDS124

Status | Network | System | VoIP | Telephone | **Maintenance**

Web Logout
Web Port Close

Maintenance
Firmware Maintenance
All Firmware Update
Provisioning Maintenance
Restart

Provisioning Maintenance

Enable Provisioning	<input checked="" type="radio"/> Yes <input type="radio"/> No
Standard File URL	<input type="text"/>
Product File URL	<input type="text"/>
Master File URL	<input type="text"/>
System File URL	<input type="text"/>
Cyclic Auto Resync	<input type="radio"/> Yes <input checked="" type="radio"/> No
Resync Interval	10080 minute(s) [1-40320]
Header Value for Resync Event	check-sync

All Save Cancel

Configuration file
(Refer to Administration Guide in detail)

```
....  
## Firmware Update Settings  
FIRM_UPGRADE_ENABLE="Y"  
FIRM_VERSION="xx.xxx"  
FIRM_UPGRADE_AUTO="Y"  
FIRM_FILE_PATH=http://xxxxx  
.....
```

Provisioning Server

2. Go to [Maintenance] -> [Provisioning Maintenance]
3. Specify [System File URL]
4. Press [All Save]

Super master CS updates the FW according to the sequence shown in Page.6 if configuration file is put in provisioning server.

<Step2> PS download setting (PS Update Type confirmation)

1. Log in to the Super Master CS [ID:admin / Password:adminpass]

Refer to Appendix about “How to open Web port” and “How to find out IP address of Super master CS”.

Panasonic
SIP CS KX-UDS124

Status | Network | System | VoIP | Telephone | **Maintenance**

Web Logout
Web Port Close

Maintenance
Firmware Maintenance
All Firmware Update
Provisioning Maintenance
Restart

Firmware Maintenance

Enable Firmware Update Yes No

Firmware File URL

PS Update Type Automatic Manual

All Save Cancel

2. Go to [Maintenance] -> [Firmware Maintenance]

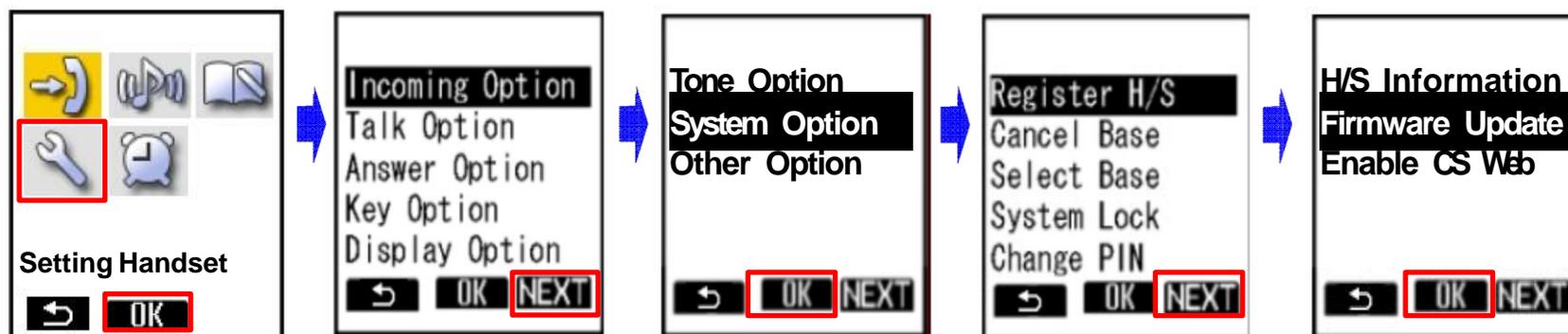
3. Select [PS Update Type] :

[Automatic] :PS starts air download automatically,
when CS is upgraded and PS is in standby mode.

[Manual] :PS starts air download when user operate “Firmware Update”.
This menu in PS appears when PS is in standby mode
under CS which has newer PS firmware.

<Step2> Air download (PS LCD indication)

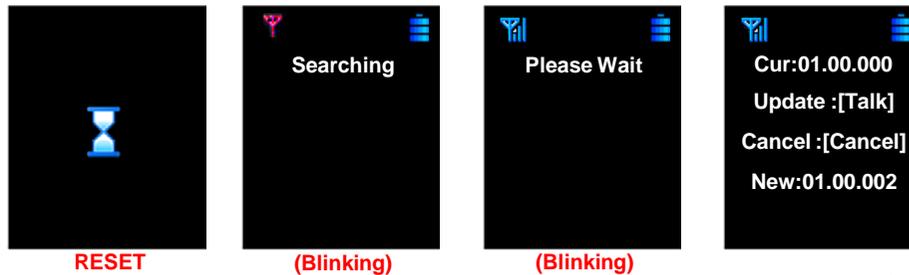
Following operation is required when "PS Update Type" is "Manual".



1. Turn on the PS.
2. Press [Menu] or the [CENTER] navigation key.
3. Select "Setting Handset" and then press [OK].
4. Press [NEXT].
5. Select "System Option" and then press [OK].
 - You may need to enter a system password to access this menu.
6. Press [NEXT] to display the second screen, select "Firmware Update", and then press [OK].
7. When the operation is complete, PS starts air download sequence.

<Step2> Air download (PS LCD indication)

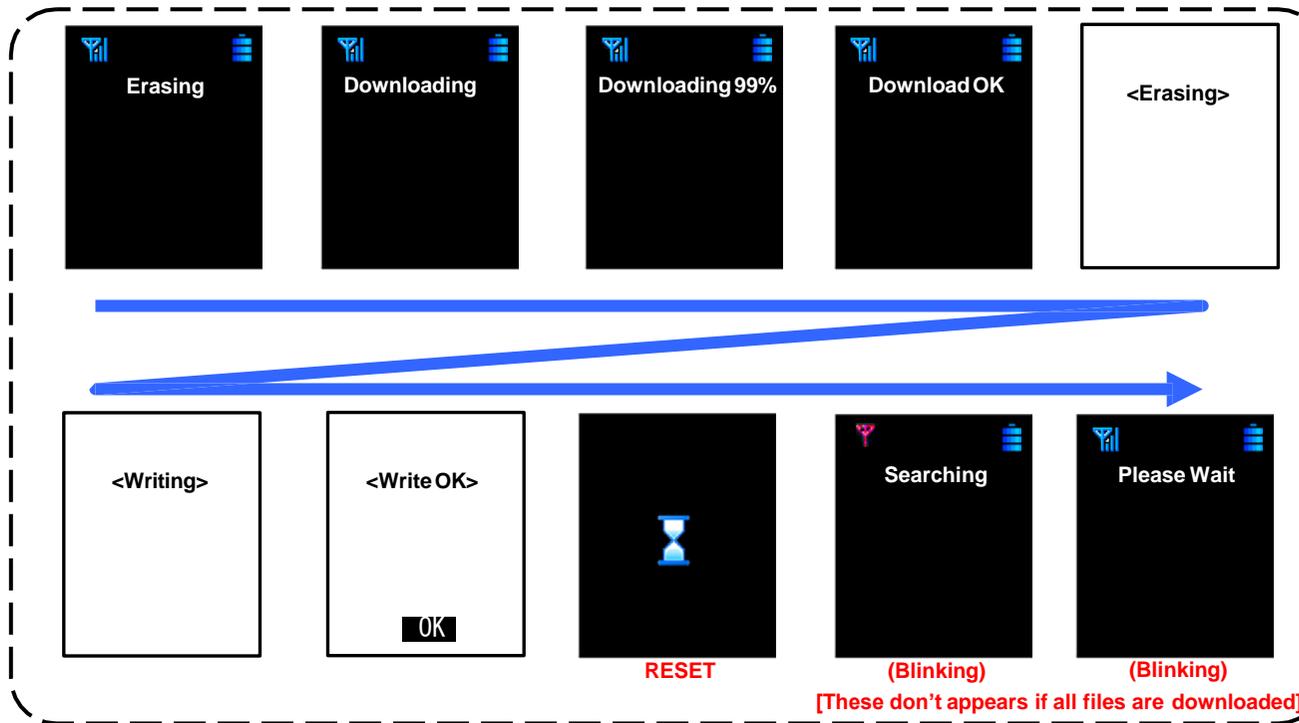
Sequence for firmware update confirmation status



Note:

“Cancel” menu appears only user start firmware update from PS manually.

Sequence for firmware update (Maximum 4 times)



Note:

1)FW is separated into few files, therefore PS repeat download and reset several times (Maximum 4 times)

Even if you turn off PS during air download, PS restarts it from the beginning of the sequence after you turn on PS again.

2)LCD shows standby status after all files are downloaded.

3)OK button appears during the download, but sequence proceed without operation automatically.



Precaution & Trouble shooting



Precaution

1. When multiple CS are upgraded by “All Firmware Update” function, **multiple CS are update step by step. It takes approx. 10 minutes for each CS complete upgrade.**
2. When PS becomes low battery condition, PS suspends air download sequence. Please put PS on charger during air download.
If once “charge battery” message appear on LCD, please put PS on charger. PS resumes air download automatically after batteries are charged enough to execute it.
3. **A CS can support air download for 4 PS simultaneously.** Excess PSs start air download after other 4 PS completes download.
4. **It will take maximum approx. 15minutes for PS to complete air download.**
5. **PS resets several times until it completes air download as previously described.**
6. If PS with old FW is registered after FW upgrade for CS, PS can start air download according to the PS Update Type at this timing.
7. PS doesn't start air download while it is establishing a call, even if air download is ready. Conversely, PS can't make and receive a call until air download completes once it starts.

Trouble shooting

CS Error during firmware update

Error Message	Explanation	Solution
Failed (Parameter Error)	Parameter is invalid or out of range.	Check the format of the URL and other parameters.
Failed (Memory Access Failure)	R/W access error to Flash memory.	CS needs repairing.
Failed (Transfer Failure)	Fail to transfer data because of network error.	Solve the network trouble.
Failed (Busy)	The operation failed because the SIP-CS is performing an operation that accesses the flash memory of the SIP-CS.	Retry again.
Failed (Invalid File)	Firmware is invalid.	Check if file path and file are correct.
Failed (File Size Error)	Size of firmware is not correct.	Check if file path and file are correct.
Failed (Time Un-setting)	Time is not set in CS even if update mode is appointed time.	1)Change update mode to Direct. 2)Set time or path to NTP server.

PS Error during firmware update

Error Message	Explanation	Solution
CS Busy	CS Busy	Please keep the condition and wait PS to start download automatically.
<Charge Battery>	Low battery	Put PS on charger and wait for a while. PS resumes air download after it is charged enough to execute air download.
<Need Repair #> (#=1~9)	Flash memory error	PS needs repairing.
<Error #> (#=1~2)	Flash memory error	PS needs repairing.

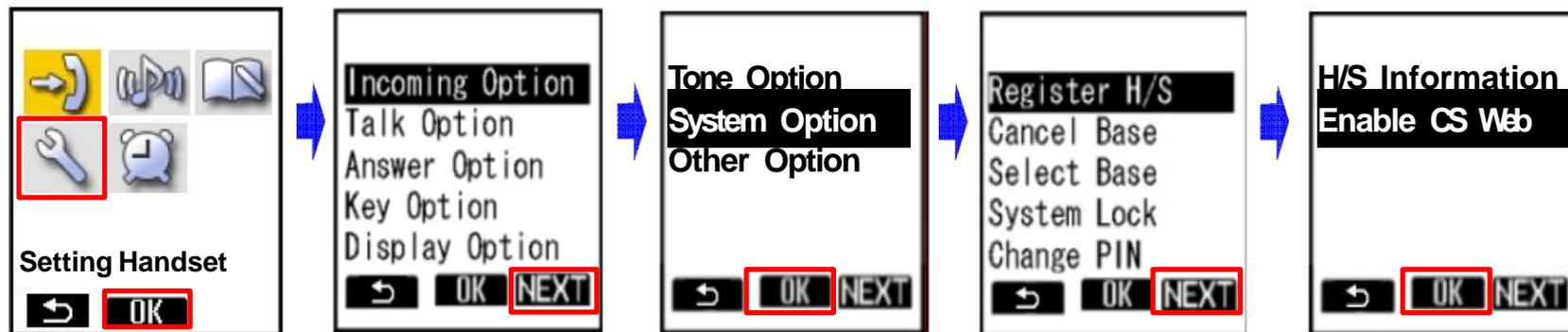


Appendix



Appendix A : How to Open the CS Web port

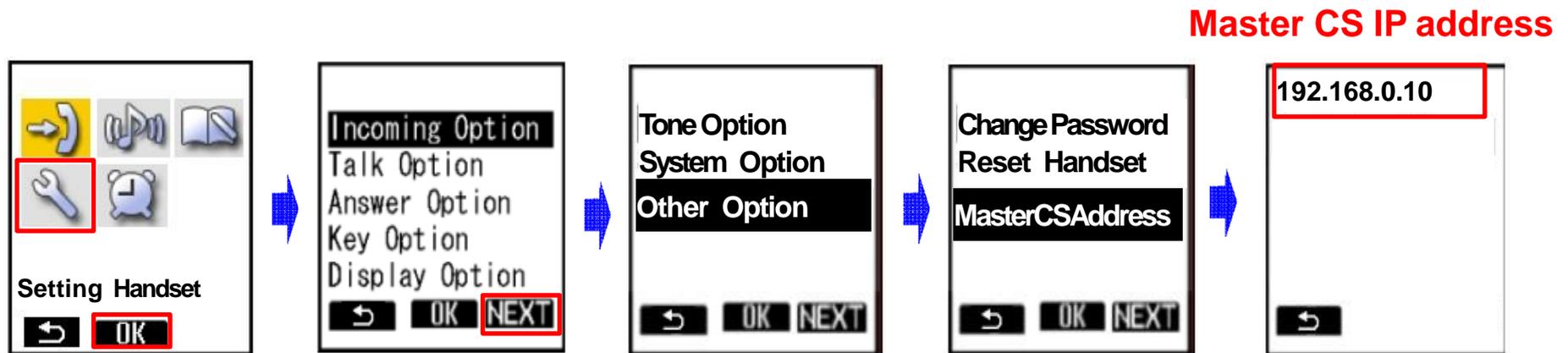
Please move under the CS



1. Turn on the PS.
2. Press [Menu] or the [CENTER] navigation key.
3. Select "Setting Handset" and then press [OK].
4. Press [NEXT].
5. Select "System Option" and then press [OK].
 - You may need to enter a system password to access this menu.
6. Press [NEXT] to display the second screen, select "Enable CS Web", and then press [OK].
7. When the operation is complete, "CS Web Enabled" is displayed.

Appendix B : How to find out IP Address of Super Master CS

Please move under the Super Master CS



1. Turn on the PS.
2. Press [Menu] or the [CENTER] navigation key.
3. Select "Setting Handset" and then press [OK].
4. Press [NEXT].
5. Select "Other Option" and then press [OK].
6. Select "MasterCSAddress" and the press [OK].
 - Display the Master CS IP address.