

SL2100 Quick Start Guide

Thank you for your purchase of the SL2100. If this is your first installation, please follow the steps in this document to complete the initial setup. All SL2100 technical documentation including manuals, help guides, training videos and knowledge base articles can be found at www.necntac.com.

Step 1

If you do not have an NEC Support ID, you can register online at www.necntac.com by clicking “**Create an Account**” and following the prompts. There is no charge or obligation requirements for receiving a support ID. A **support ID is required** to download the SL2100 Programming Tool (PCPro) as well as the latest version of software to ensure the SL2100 has the latest available features.

Step 2

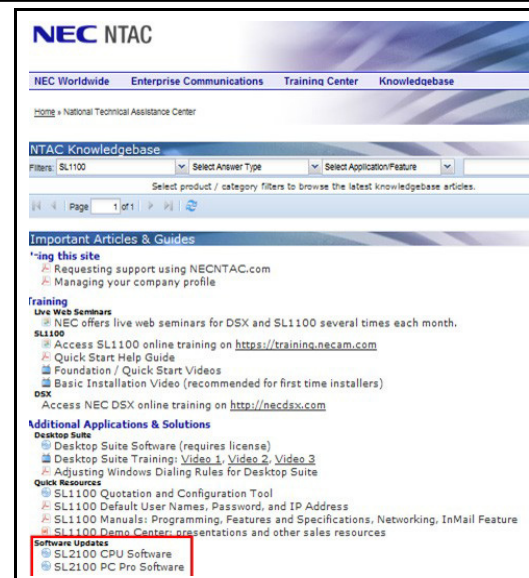
Download
PCPro and CPU
Software

Log into the www.necntac.com website using your support ID.

Once logged in, download the following two items, which are located on the bottom of the page:

- SL2100 CPU Software
- SL2100 PCPro Software

Please install the SL2100 PCPro software on the computer that runs the initial setup of the SL2100 system.



Step 3

Verify Power
and
Hardware Review

To avoid shock or equipment damage, **do not plug in or turn on the system power before completing the hardware installation.** You must install a CPU (IP7NA-CPU-C1) into the first KSU of each SL2100 system. Built into each CPU are eight VoIP channels and four InMail channels with two hours of storage.

To add extensions, you must either install a station expansion board and/or register IP telephones to the system. To add lines to the system, you need to install a line expansion daughter board or register SIP Trunks to the system (License). Each KSU contains four Expansion slots.

Available expansion boards are:

- IP7WW-082U-B1 – Provides 8 Digital Extensions + 2 Analog Extensions
- IP7WW-008U-C1 – Provides 8 Analog Extensions
- IP7WW-000U-C1 – Provides connection for Trunk Expansion Daughter Board, 0 Extensions
- IP7WW-3COIDB-C1 – 3-port Analog Line daughter board
- IP7WW-1PRIDB-C1 – 1 ISDN PRI / T1 daughter board

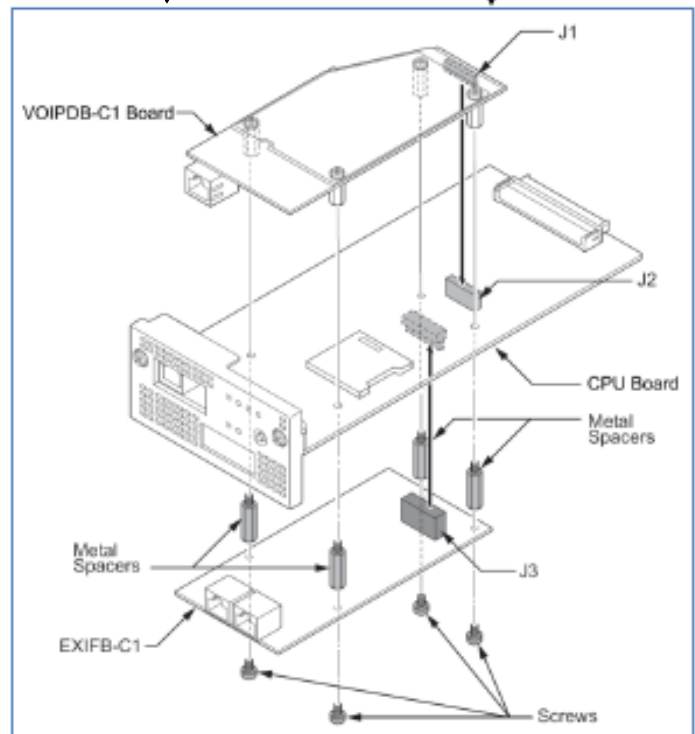
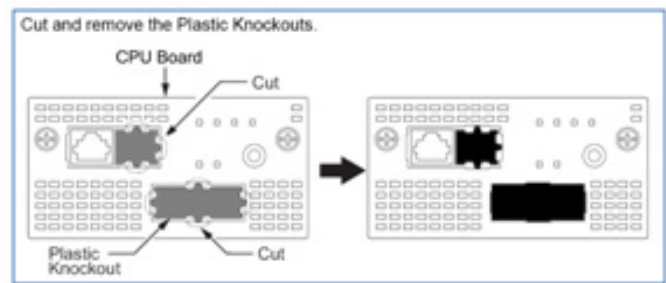
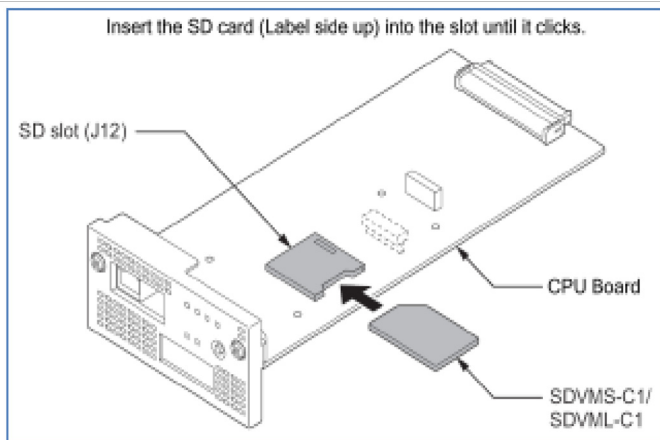
Step 3 Continued

Notes:

- The 3COIDB and 1PRIDB boards can be mounted onto 082U, 008U, 000U boards.
- Slot 4 can not contain a 082U board.
- InMail storage capacity can be increased by adding IP7WW-SDVMS-C1 SD card for 15 hours of storage or the IP7WW-SDVML-C1 for 120 hours of storage. Either SD card adds 26 language prompts.
- InMail channels can be increased from four ports to 16 ports by adding the IP7WW-EXIFB-C1 expansion board into the first KSU. This board also allows the first KSU to be connected to two other KSUs (each must contain an IP7WW-EXIFE-C1 expansion board).

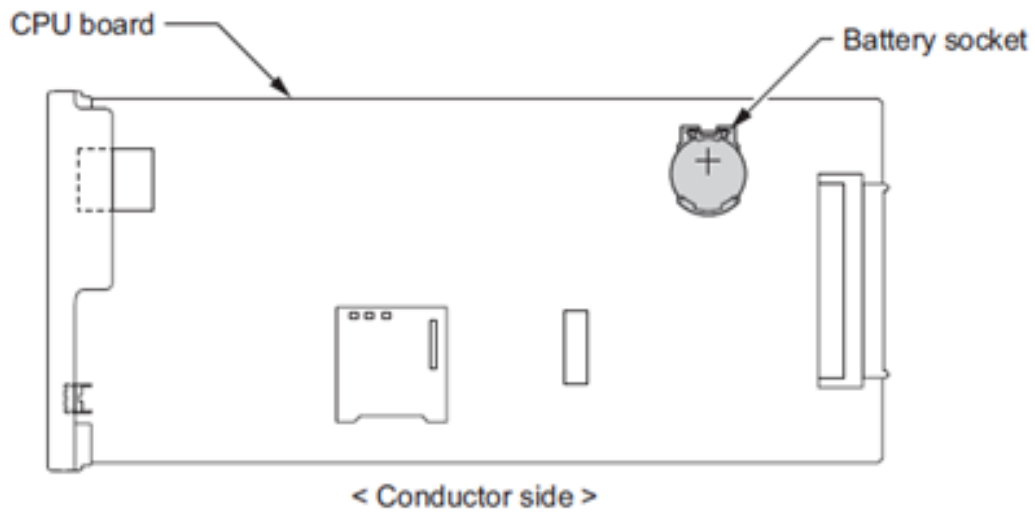
Step 4

While the SL2100 is still off and the power is disconnected, install the optional IP7WW-VOIPDB-C1, IP7WW-SDVMS / SDVML and/or IP7WW-EXIFE-C1 onto the CPU. Also, install the supplied lithium battery as shown on the next page.



Step 4 Continued

Lithium Battery Installation

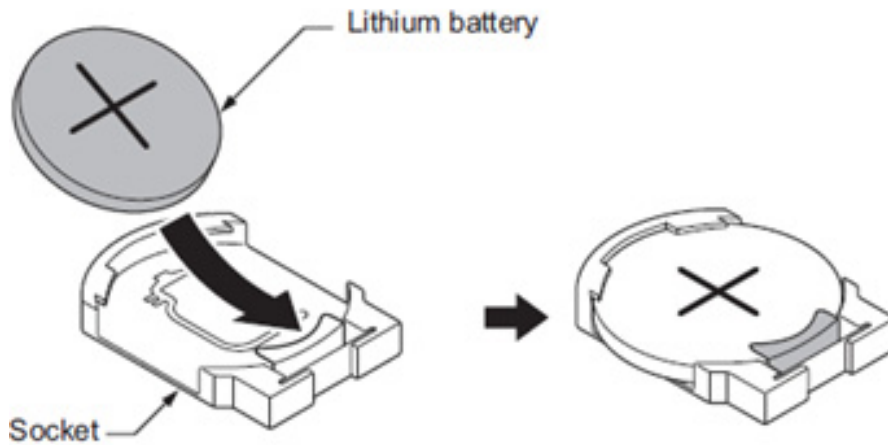


Location of Lithium Battery Socket

Insert the supplied lithium battery into the socket.



The polarity “+” symbol must be on top as illustrated in the following diagram.

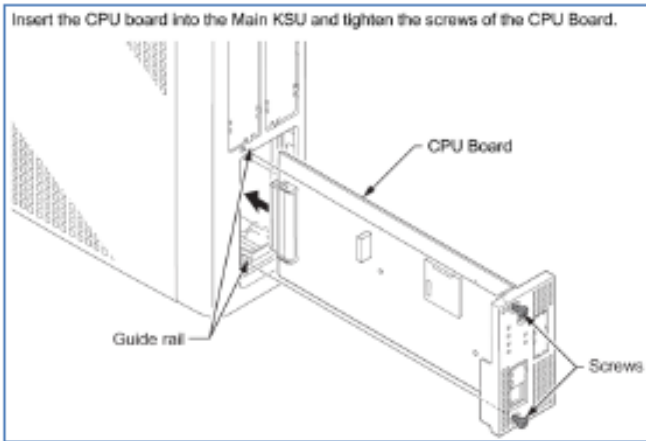


Inserting the Lithium Battery



Step 5

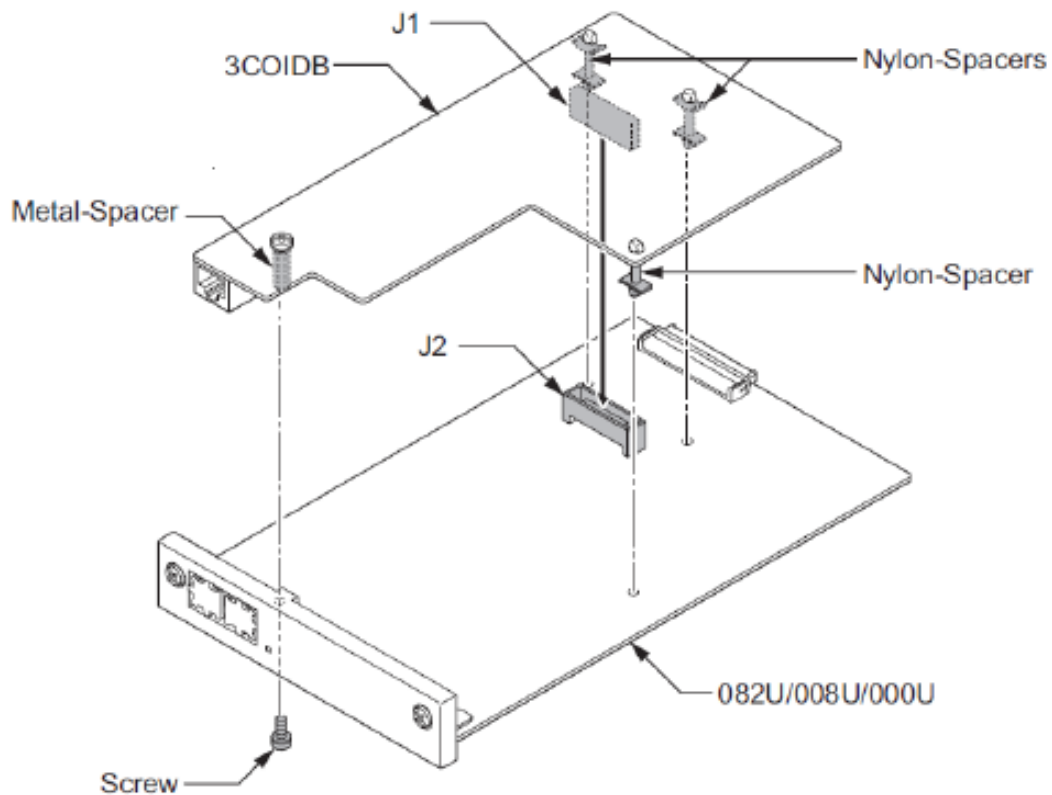
Insert the CPU into the chassis as shown below.



Step 6

If you have CO/Line or PRI daughter boards, you can install them onto the expansion boards.

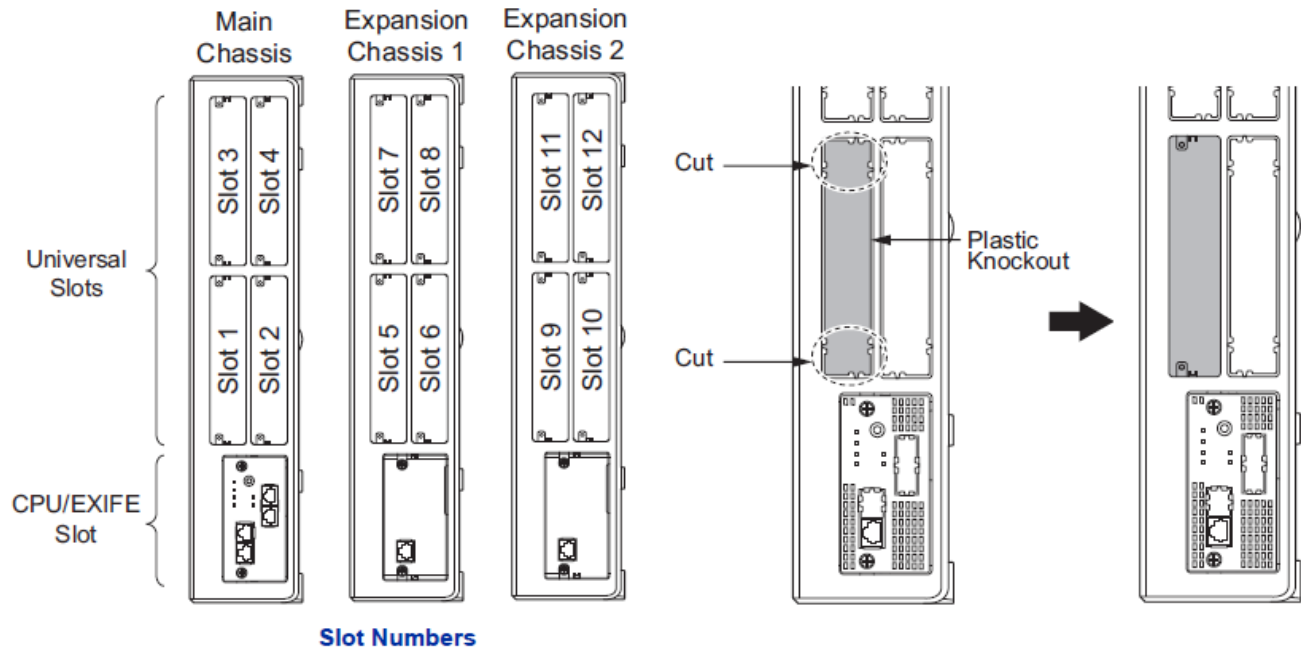
Mount the 3COIDB/1PRIDB PCB onto the 082U/008U/000U PCB using one screw.



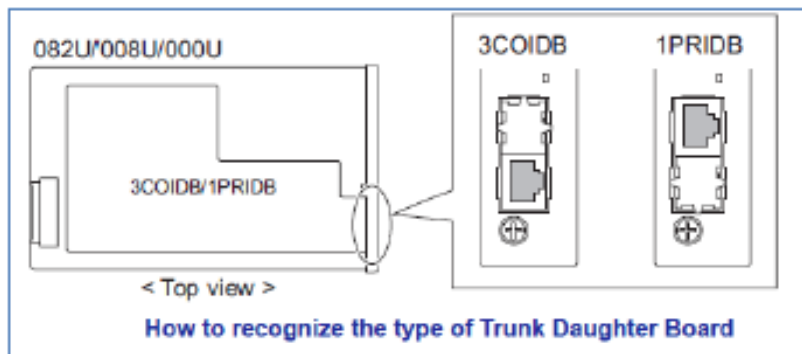
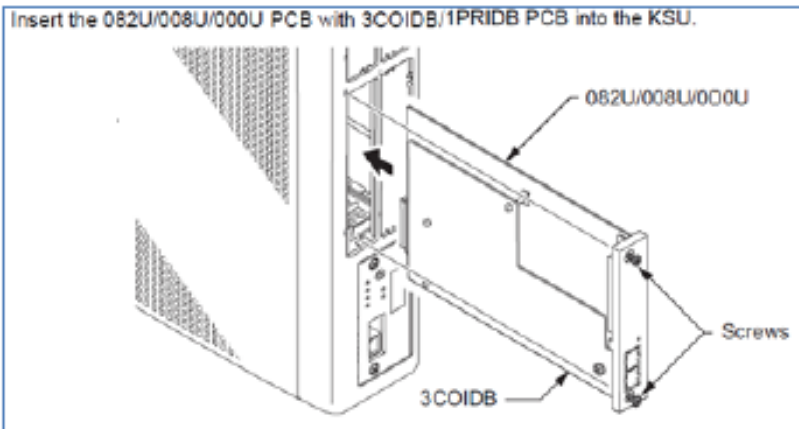
Mounting the 3COIDB/1PRIDB

Step 7

Insert the expansion board(s) into an available Expansion slot.

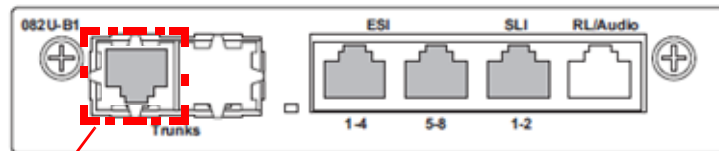


Note: Slot 4 can not contain the digital station board 082U expansion board.

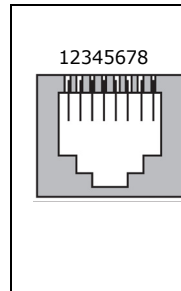
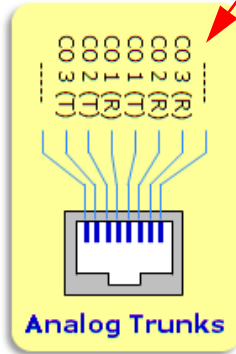


Pin Outs and Connections

**This IP7WW-3COIDB-C1 provides one RJ61 connection for CO lines.
082U/008U/000U + 3COIDB**

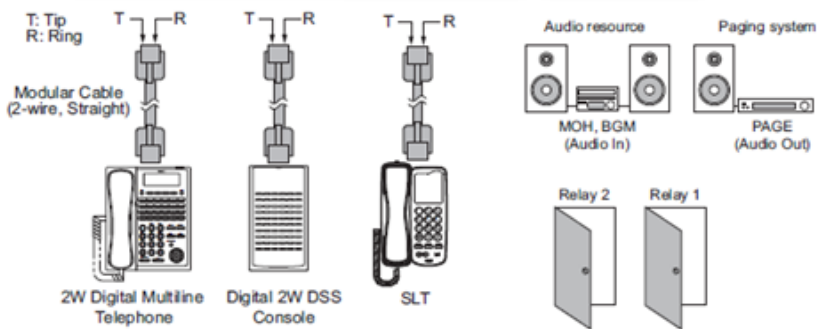
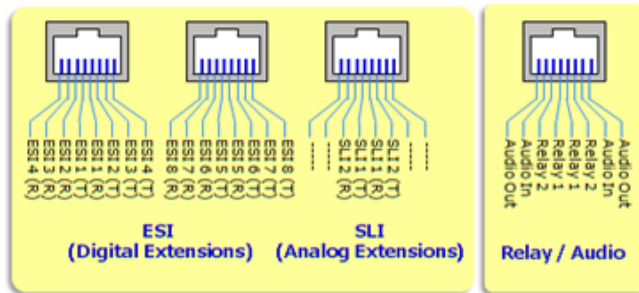
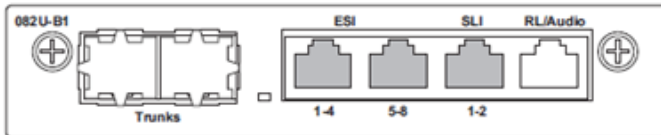


Trunk 1-3
(RJ61)



Pin Number	Pin Function
1	—
2	CO 3 (Tip)
3	CO 2 (Tip)
4	CO 1 (Ring)
5	CO 1 (Tip)
6	CO 2 (Ring)
7	CO 3 (Ring)
8	—

IP7WW-082U-B1



External Paging Output Specification	
Item	Specification
Output Impedance	600 ohms @ 1kHz
Output Level	Nominal 250 mV (-10dBm)
Maximum Output	400mV RMS

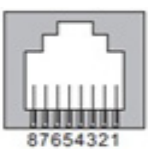
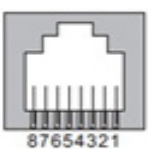
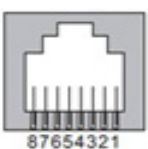
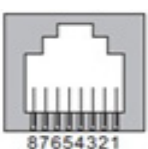

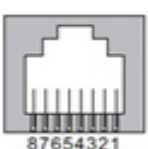
BGM/External MOH Input Specification	
Item	Specification
Input Impedance	600 ohms @ 1kHz
Input Level	Nominal 250 mV (-10dBm)
Maximum Input	1 V RMS

General Purpose/Door Relay Specification	
Item	Specification
Rated Voltage	DC 48 V Maximum
Rated Current	DC 320 mA Maximum
Contact	Normally open

NEC Quick Install cables allow for easier installation with six RJ61 modular plugs on a 25-pair cable. The figure on the next page shows the industry standard 25-pair color code and each modular plug pin out.

25 Pair Color code:

TIP		RING	
white/blue	pair 1	blue/white	
white/orange	pair 2	orange/white	
white/green	pair 3	green/white	
white/brown	pair 4	brown/white	
white/slate	pair 5	slate/white	
red/blue	pair 6	blue/red	
red/orange	pair 7	orange/red	
red/green	pair 8	green/red	
red/brown	pair 9	brown/red	
red/slate	pair 10	slate/red	
black/blue	pair 11	blue/black	
black/orange	pair 12	orange/black	
black/green	pair 13	green/black	
black/brown	pair 14	brown/black	
black/slate	pair 15	slate/black	
yellow/blue	pair 16	blue/yellow	
yellow/orange	pair 17	orange/yellow	
yellow/green	pair 18	green/yellow	
yellow/brown	pair 19	brown/yellow	
yellow/slate	pair 20	slate/yellow	
violet/blue	pair 21	blue/violet	
violet/orange	pair 22	orange/violet	
violet/green	pair 23	green/violet	
violet/brown	pair 24	brown/violet	
violet/slate	pair 25	slate/violet	

Modular Plug 1	Pin Number	Color
	1	White/Brown
	2	Green/White
	3	White/Orange
	4	Blue/White
	5	White/Blue
	6	Orange/White
	7	White/Green
	8	Brown/White
Modular Plug 2	Pin Number	Color
	1	Red/Green
	2	Orange/Red
	3	Red/Blue
	4	Slate/White
	5	White/Slate
	6	Blue/Red
	7	Red/Orange
	8	Green/Red
Modular Plug 3	Pin Number	Color
	1	Black/Orange
	2	Blue/Black
	3	Red/Slate
	4	Brown/Red
	5	Red/Brown
	6	Slate/Red
	7	Black/Blue
	8	Orange/Black
Modular Plug 4	Pin Number	Color
	1	Yellow/Blue
	2	Slate/Black
	3	Black/Brown
	4	Green/Black
	5	Black/Green
	6	Brown/Black
	7	Black/Slate
	8	Blue/Yellow
Modular Plug 5	Pin Number	Color
	1	Yellow/Slate
	2	Brown/Yellow
	3	Yellow/Green
	4	Orange/Yellow
	5	Yellow/Orange
	6	Green/Yellow
	7	Yellow/Brown
	8	Slate/Yellow
Modular Plug 6	Pin Number	Color
	1	Violet/Brown
	2	Green/Violet
	3	Violet/Orange
	4	Blue/Violet
	5	Violet/Blue
	6	Orange/Violet
	7	Violet/Green
	8	Brown/Violet

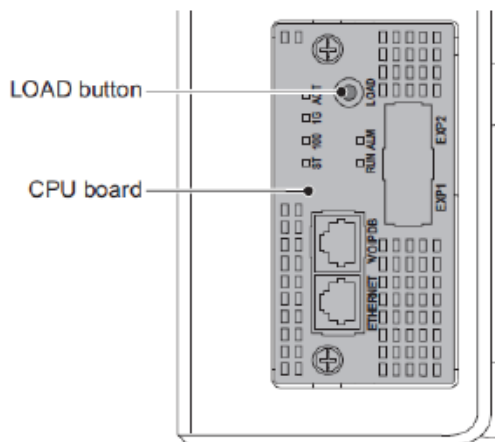
NEC Quick Install Cable 25-pair Color Code and Modular Pin Outs

Step 8

Apply Power and Cold Start

Once all the hardware is installed, plug the power cable into the AC outlet. During the initial installation you must always perform a Cold Start (System Initialization). Perform the Cold Start following the steps outlined below.

1. Verify the system is powered OFF.
2. Push in and hold the **Load** button on the CPU.
3. Continue to hold the **Load** button and turn the power switch to the **ON** position in the main KSU.
4. Continue to hold the **Load** button for approximately three seconds or until the **ALM LED** starts to flash red.



5. Release the **Load** button.
6. When the system completes reloading the software (approximately one minute), the **Run LED** flashes green on the CPU and connected multiline telephones show the **Time**, **Date** and **Extension** number.

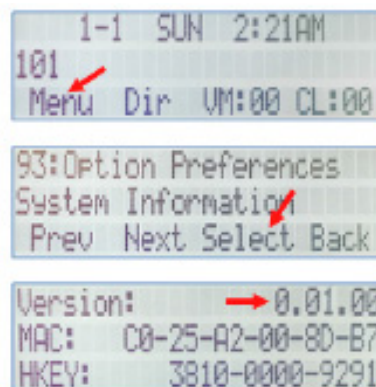
Step 9

Verify Software Version

To verify the software version from any multiline terminal:

1. Press the **Menu** softkey.
2. Dial **93** on the dial pad.
3. Press the **Select** softkey. The version is displayed in the top row of the telephone.

If the SL2100 software version is lower than the software version that was downloaded from www.necntac.com, an upgrade must be performed. If an upgrade is required, follow the SL2100 upgrade steps (refer to [Upgrade Instructions for the SL2100 on page 15](#)).





IMPORTANT: Please Read

The **SL2100 system is fully operational** with the following default settings:

- All lines are set to Loop Start with Caller ID enabled.
- All lines are members of Ring Group 1 and when an inbound call is made on one of these lines, the following extensions ring.
 - 101 ● 105
 - 102 ● 106
 - 103 ● 107
 - 104 ● 108
- All lines are in trunk group 01. When any extension goes off-hook and dials digit 9, the first available trunk in trunk group 1 is selected.
- Extension 101 is the operator. Any user can reach extension 101 by dialing 0 or by dialing 101.
- Extension 101 has administrator features enabled and is assigned to class of service 15. All other extensions are assigned to class of service 1, which does not have administrator features enabled.
- On all stations, line keys 1 ~ 12 are assigned as lines 1 ~ 12. Any user can press any of these lines and make an outbound call. By default, there is no code restriction enabled on any of the stations.
- At default, the InMail Pilot Extension number (VoiceMail) is 3999.
- At default, mailboxes 1 ~ 64 are assigned as personal mailboxes for extensions 101 ~ 164. Mailboxes 65~128 are open.

Connections

The following sections describe how to connect to the SL2100 (using PCPro) and make configuration changes.

Step 1

Before connecting to the SL2100 you must verify the IP Address. By default, the SL2100 is enabled to receive its IP address, Subnet Mask and Default Gateway from the Network DHCP Server.

If a DHCP server does not exist, the following chart displays the IP Address of the SL2100 along with the IP Address you assign on the PC that is used to configure the system.

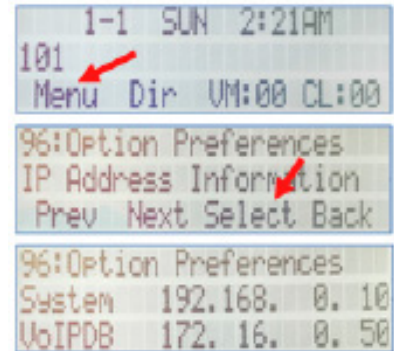
	SL2100 IP Address	SL2100 Subnet Mask	Your PC IP Address	Your PC Subnet Mask
VoIPDB Installed	172.16.0.10	255.255.0.0	172.16.0.11	255.255.0.0
No VoIP DB (Built-In VoIP)	192.168.0.10	255.255.255.0	192.168.0.11	255.255.255.0



Step 2 Verify IP Address

If the SL2100 receives an IP address from a DHCP server, complete the following steps from any multiline telephone to verify the IP Address:

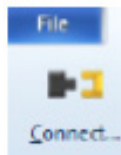
1. Press the **Menu** softkey.
2. Dial **96** on the dial pad.
3. Press the **Select** softkey. Two IP addresses are displayed:
 - If the VOIPDB is installed, use the VoIPDB IP Address and VoIP DB Ethernet connection.
 - If the VOIPDB is not installed, use the System IP Address.



Note: The screen shot above reflects changes that have been made to PRGM 10-12-09 VoIP DB IP Address from the default of 172.16.0.10.

Step 3

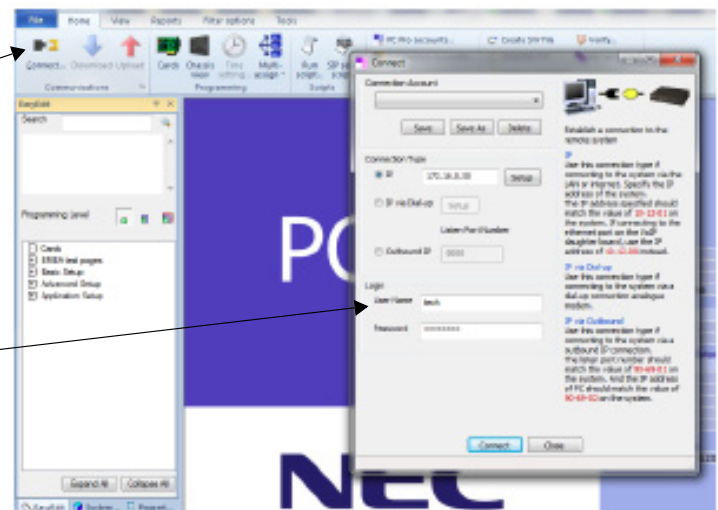
Launch PCPro and click the **Connection** icon.



After clicking the **Connect** icon, the **Connect** screen is displayed. Enter the **SL2100 IP Address, User Name** and the **Password**.

- User Name = tech
- Password = 12345678

Click **Connect**.

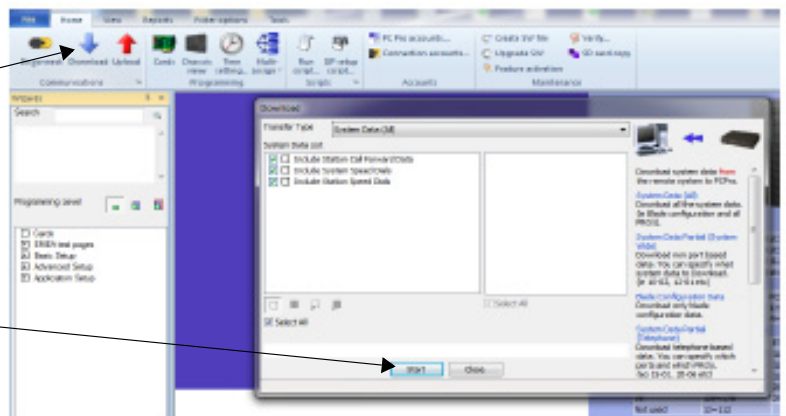


Step 4

After you connect to PCPro, click the download arrow.



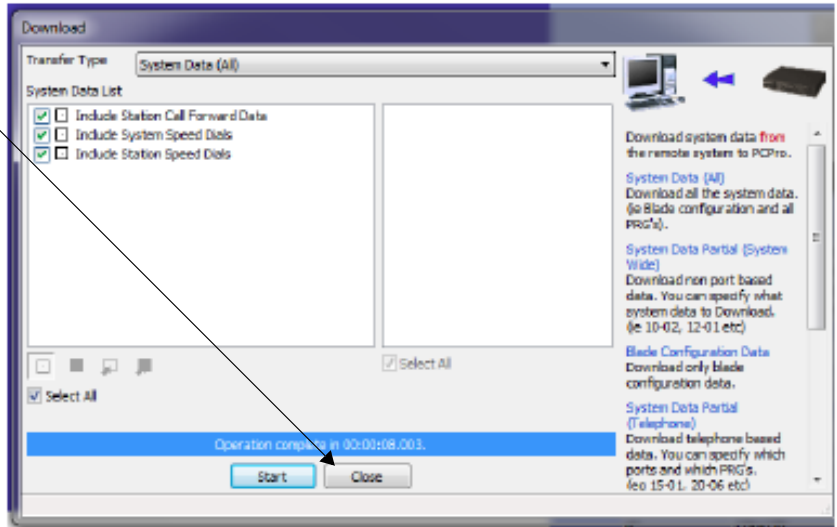
Click **Start** to download all current system data before making program changes.



Step 4 Continued

Once the download window displays **Operation Complete**, click **Close** to close the download window.

PC Pro now has current system data loaded. At this point, you can safely make program changes to the system and upload your changes.



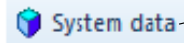
Change IP Address

The SL2100 can require a static IP Address within the customer's network scheme. To change the SL2100 IP Address, follow the steps below.

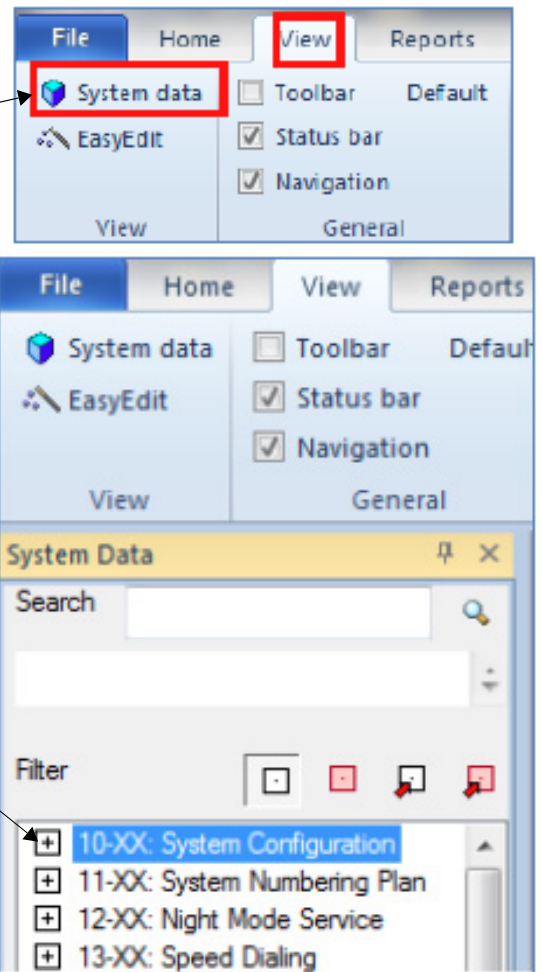
Step 1

To change the SL2100 IP Address, you must first disable the DHCP client.

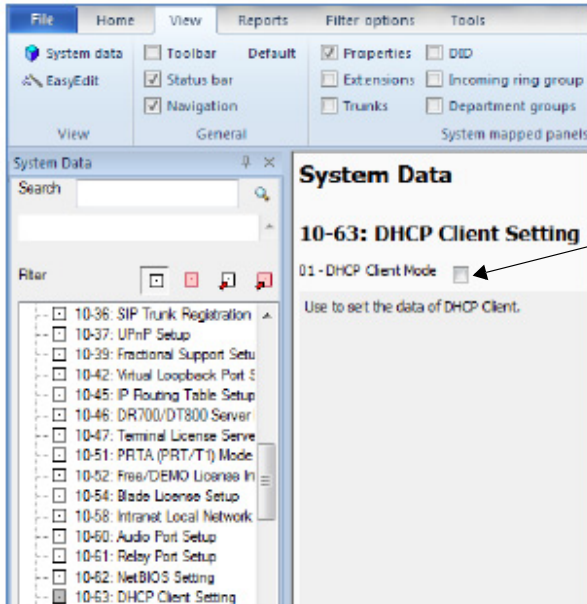
From the top left side of PCPro, click **View** then **System Data**.



From the System Data view click + next to 10-XX to expand the 10 - System Configuration programs.



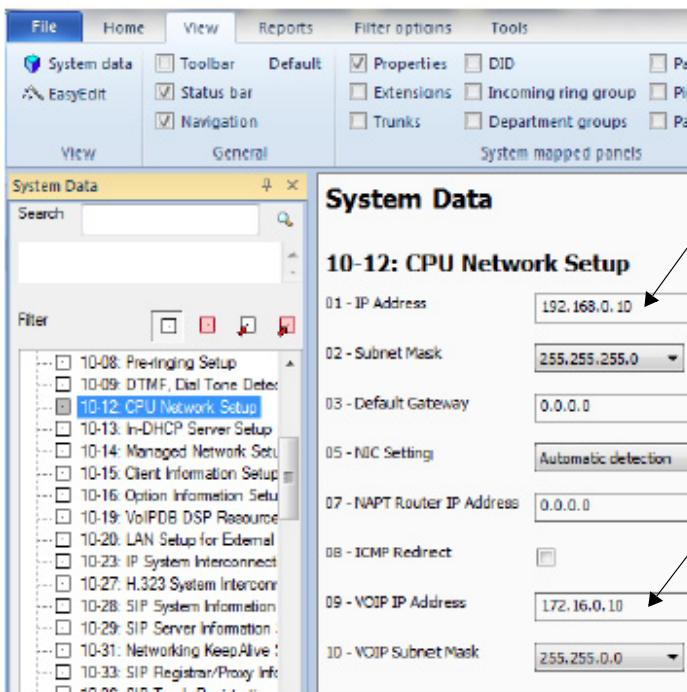
Step 2



Click on the **10-63 DHCP Client Setting** and uncheck DHCP Client Mode as shown.

Click **Apply** after each program change.

Step 3



If the optional VoIP Daughter Board is not installed assign:

- **IP Address:** Assign the new IP Address for the SL2100.
- **Subnet Mask:** Assign the new subnet mask for the SL2100.
- **VOIPDB IP Address (10-12-09):** Assign an IP Address of 0.0.0.0 (to prevent IP conflicts).

If the optional VoIP Daughter Board is installed assign:

- **VOIPDB IP Address:** Assign the new IP Address for the SL2100 and use the VoIP DB Ethernet connection.
- **VOIPDB Subnet Mask:** Assign the new subnet mask for the SL2100.
- **IP Address (10-12-01):** Assign an IP Address of 0.0.0.0 (to prevent IP conflicts).

Step 4

Specify the **Default Gateway IP Address**.

03 - Default Gateway

Click **Apply**.



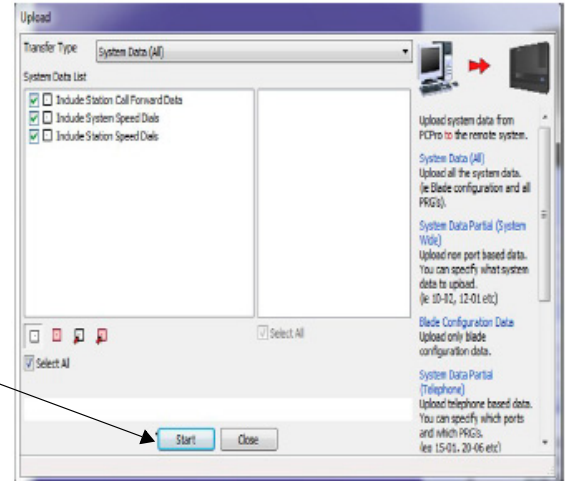
Step 5

Once all changes are final, click the **Upload** icon in the top left corner of PCPro, to send the data to the SL2100.



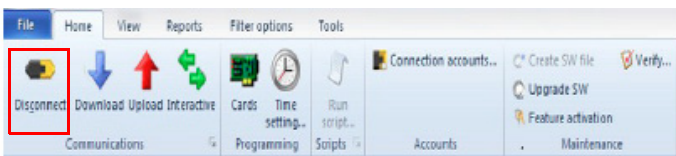
When the **Upload** icon is pressed, a new Upload window is displayed. Click **Start** to begin the upload.

When the data upload is finished, click the **Close** button to complete the process.



Step 6

After the upload is complete, you must disconnect PCPro by clicking the **Disconnect** icon.



The SL2100 **must be reset** for the IP Address to take effect.

Step 7

1. After disconnecting PCPro, wait 30 seconds for the data to write to memory.
2. Turn OFF the SL2100 by setting the power switch on the MAIN KSU to the **OFF** position.
3. Turn ON the SL2100 by setting the power switch on the MAIN KSU to the **ON** position.

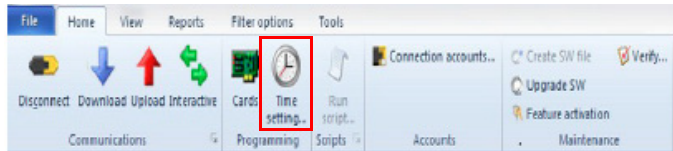
When the SL2100 comes back online, the new IP Addresses are applied.

Change Date/Time

The SL2100 has an internal clock that can be used to control the time and date. Or, the SL2100 can be connected to a NTP server to receive time and date information. The following section shows the steps for using the internal clock to control the time settings.

Step 1

Connect to the SL2100 using PCPro. Once PCPro is connected, the **Time setting** icon is available.

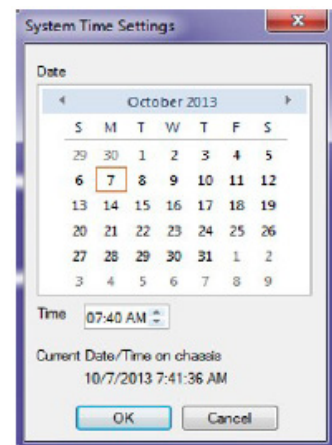


Click on the **Time setting** icon to launch the **System Time Settings** window.

Step 2

1. Select the **Month** and **Date** using the calendar.
2. In the time picker, specify the **current time**.
3. Click **OK** to change the current system date and time.

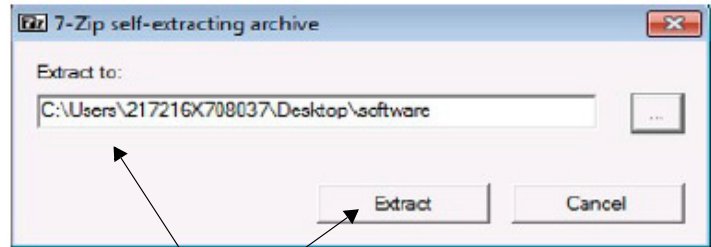
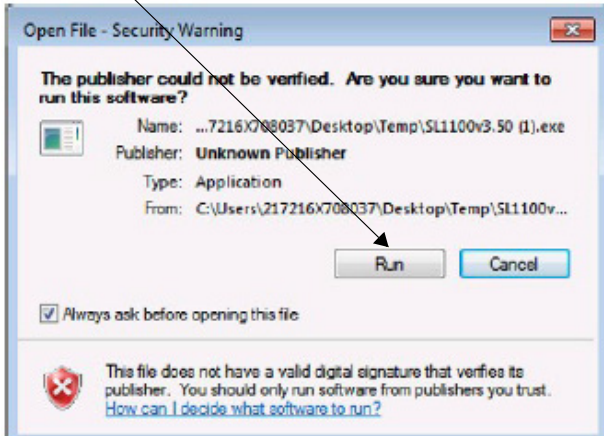
Note: You must change the state of the telephone to see the new time display (e.g., go off-hook and then go back on-hook).



Upgrade Instructions for the SL2100

Step 1

Double click the self-executable software file that was downloaded from the www.necntac.com website. Click **Run** to begin the extraction.



Take note of the destination where the software is being extracted.

Click the **Extract** button. The software upgrade files are saved in the **Extract to** location.

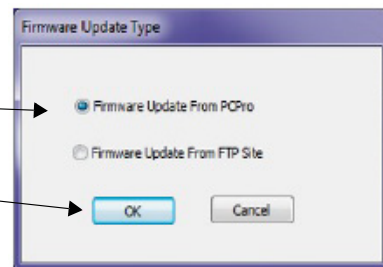
Step 2

Connect to the SL2100 using PCPro. When PCPro is connected, the **Upgrade SW** icon is available. Click the **Upgrade SW** icon to launch the **Firmware Update** window.



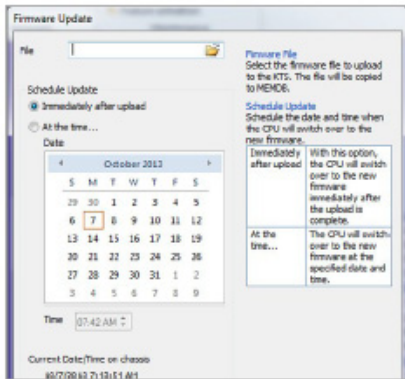
Step 3

Select the **Firmware Update from PCPro** radio button. Click **OK**.



Step 4

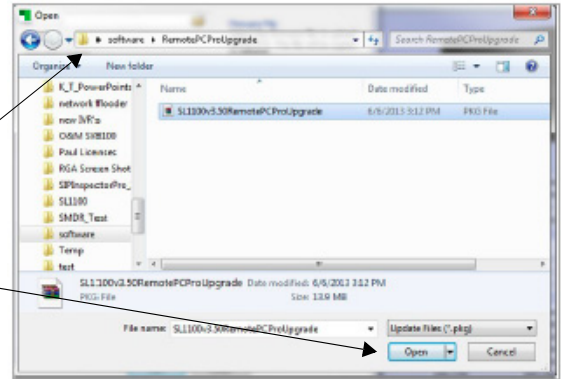
Connect to the SL2100 using PCPro. When PCPro is connected, the **Upgrade SW** icon is available.



Browse to the location where the self-extracted file was stored during Step 1.

Select the file that is stored in the **Remote PCUpgrade** folder.

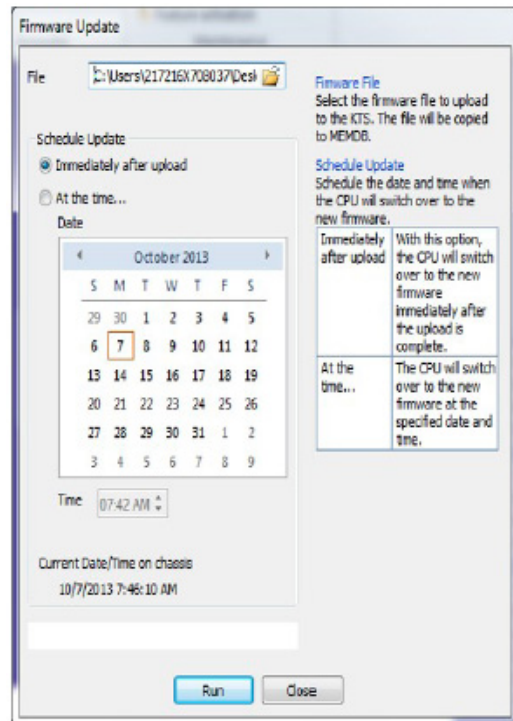
Click **Open**.



In the schedule update box, there are two possible upgrade methods that can be selected. They are:

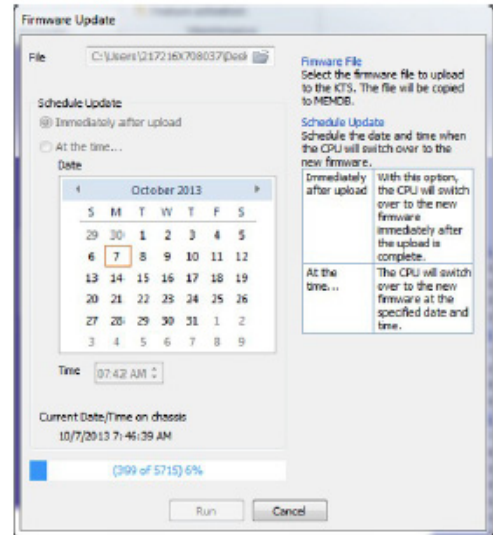
- **Immediately after upload** - As soon as the file finishes uploading, the SL2100 automatically resets itself and performs the upgrade
- **At the time...** - At the specified time and date, the SL2100 automatically resets itself and performs the upgrade.

Click **Run** to begin uploading the software to the SL2100.



Step 6

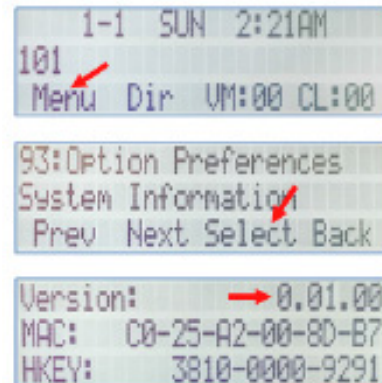
Once the file has been loaded, the system resets at the defined time (or immediately after) and then performs the upgrade.



Step 7

Once the system comes back online, verify the software version from any multiline telephone using the following steps.

1. Press the **Menu** softkey.
2. Dial **93** on the dial pad.
3. Press the **Select** softkey. The version is displayed on the top row of the screen.



Training Videos

Login to www.necntac.com using your Support ID and Password.
After you login, click the **Foundation / Quick Start Videos** link.

All SL2100 documentation, including manuals, help guides, training videos and knowledge base articles can be found on this website.

