MoniPlus2 Release 02.03.xx Global
Software Installation and Configuration Guide
using Basic Media Single Image and MoniACT

for Windows 7 and Windows 10

Ver. 8.0

Table of Contents

Revision History

Version	Date	Change Summary
1.0	6/3/16	Initial issue based on ver. 10 of the existing MoniPlus2 02.03 installation document. • Added BIOS configuration for the H61 core on pages 11-12. • Updated the media list and step-by-step installation instructions on page 13 -17. • Added troubleshooting section for problem where MoniACT does not auto-start on page 58. • Added a list of the devices that can be configured through MoniACT on page 83. • Added instructions on loading an MX5200 on page 84.
2.0	8/4/16	Added notation of how to start the MoniACT configuration program if not preceded by the Basic Media package on page 15. Corrected the installation instructions for the NHSecurity package on page 17. You must manually start the installation by selecting SWUpdate.exe on the CD. Added block diagrams for 7800i and 8800 terminals on page 67 and 68.
3.0	1/16/17	Added Q87 BIOS settings on page 13. Added instruction to set the GBRM entry on the Set Cash Mode supervisor screen to True only if you have a GBRM on page 21. Added note to use the Local Port Number setting in the Host Address when the host is defined as server, but requires a static port number for the ATM on page 23. Added instructions for changing the HCDU low bill sensor values on pages 59-60.
4.0	4/25/17	Updated the instructions for installing the Basic Media software on page 15. Updated the screen shot for MoniACT on page 16. Updated the MoniPlus2 application installation organization on pages 18-19. Removed the MX8800 block diagram because it does not support MoniPlus2 02.03.xx Global. Removed the EPP parts ordering information and recommended contacting the help desk.

Version	Date	Change Summary
5.0	12/26/17	Added BIOS information for the H81 core BIOS on page 13.
		Added instruction to permanently remove the modem card from a 5100T with an H81 core and 10" SPL on page 15.
		Added instruction to enable the US Common AID supervisor entry for US customers on page 21.
		Added block diagrams for 7600 models with an H81 core on pages 67-72.
6.0	7/17/18	Updated the Q87 BIOS information to the latest versions on page 13.
		Added instruction to always press the Apply button on the device drivers screen on page 19.
		Added instructions for using MoniView to distribute software updates to ATMs on pages 96-105.
7.0	1/21/19	Updated the Preliminary Activities section with Windows 10 information on pages 3 and 4.
		Moved and reworded the instructions about removing the modem from a 5100T with an H81 PC on page 4.
		Updated the BIOS information for both Windows 7 and Windows 10 on page 6.
7.1	2/5/19	Added deposit device configuration information on pages 18-19.
8.0	3/20/19	Moved loading hot fix CD to last on page 18.
		Added latest block diagrams for H81 cores and moved oldest to end of section on pages 53-65.

1 Introduction

This document provides step-by-step instructions for installing and configuring the Hyosung MoniPlus2 02.03.xx Global software on a MoniMax ATM using the single image base and MoniACT software. Instructions are included in this document and identified as such for:

$\Longrightarrow$ **Staging a new ATM or reloading an ATM at the plant**

$\Longrightarrow$ **Upgrading an ATM in the field**

This document explains how to install MoniPlus2 02.03.xx Global regardless of the version of Windows running on the ATM. All Windows version-specific information is included where necessary. Instructions for upgrading an ATM to the latest version of MoniPlus2 are also included in this document.

1.1 Document Organization

The information in this document is organized as follows:

Chapter 2, *Preliminary Activities*, explains activities that need to be done to prepare various MoniMax ATMs for a MoniPlus2 software load.   This chapter also lists the information you should collect from an ATM currently deployed in the field prior to reloading it.

Chapter 3, *Install and Configure the Software*, provides step-by-step instructions for installing and configuring all of the MoniPlus2 02.03.xx software.

Appendix A, *How to Install a Software Update,* provides step-by-step instructions for installing software updates. Keep these instructions for future software updates.

Appendix B, *Deposit Automation Worksheets*, contains worksheets that you can use to record the deposit automation values from your existing ATMs so that you can configure the new software in the same way. The deposit values do not print on the configuration receipt so you would have no record of them otherwise.

Appendix C, *Troubleshooting*, lists problems that can occur during software installation and solutions to those problems. This section also contains instructions on retrieving the application, EP and SP logs and the electronic journal (EJ) files.

Appendix D, *Block Diagrams*, contains the core block diagrams for a number of Hyosung ATMs. Additional diagrams will be added as they become available.

Appendix E, *Upgrade to a PCI 3.0 Compliant EPP Keypad*, contains instructions for installing and configuring the Hyosung PCI 3.0 compliant keypad in an ATM.

Appendix F, *MoniACT Device List*, contains a list of the terminal devices supported by MoniACT.

Appendix G*, Build and Install the MoniPlus2 02.03.xx Software for an MX5200 ATM*, explains the build and loading procedures for an MX5200, which has a unique build not supported in MoniACT.

Appendix H, *Loading the Software Image*, contains the instructions for loading an ATM with the old image software.

Appendix I, *Using MoniView to Distribute a MoniPlus2 Software Update*, explains how to create a downloadable software update package and then how to send the package to an ATM using MoniView.

1.2 Audience

This document is written for Hyosung stagers, field service engineers, value added resellers (VARs) and anyone responsible for installing the MoniPlus2 software. These instructions have been written with the assumption that you have been trained in general ATM installation and configuration.

1.3 Additional References

The following documents complement this one.

- MoniPlus2 Release 02.03.xx Software Release Notes – provided with the software

- Basic Media Package Release Notes – provided with the software

- MoniACT Package Release Notes – provided with the software

- NHSecurity Package Release Notes – provided with the software

- MoniMax 02.03.xx Operator Manual – available from the Hyosung technical support group

- MoniPlus VDM Manual (Diagnostics) – available from the Hyosung technical support group

- MoniPlus2 Release 02.03.xx Voice Guidance Configuration Guide – available from the Hyosung technical support group

1.4 Required Tools

You will need the following tools and supplies for your installation:

- Keyboard and mouse to attach to the ATM

- Ear buds or other small earphones to verify voice guidance

- Hyosung-supplied FSE tool kit

- Receipt paper – typically supplied by the bank

- Cash, checks and cards for diagnostic tests

1.5 Hyosung Contact Information

If you need assistance with your installation, contact Hyosung technical support.

- Email: techsupport@nhausa.com

- Phone : 877-HYOSUNG (496-7864)

1.6 How to Use this Document

$\Rightarrow$ **If you are staging a new or reloading a deployed ATM,** continue with the next section, *Preliminary Activities.*

$\Rightarrow$ **If you are upgrading an ATM to the latest version of 02.03.xx only and not completely reloading,** continue with the section entitled *How to Install a Software Update* on page 38.

2 Preliminary Activities

Before you load the MoniPlus2 02.03.xx software on an ATM, you need to determine what hardware you have to ensure that it is supported by MoniACT and MoniPlus2. There is a list of supported ATM models in the *Identify the ATM Hardware Model* section below. If your ATM is not one of the models listed, contact the Hyosung help desk. There are also some model-specific instructions included in this section.

- If you are upgrading to Windows 10, you may also need to replace the CE. Only H81 and Q87 cores can currently be used with Windows 10. The *Windows 10 Hardware Support* section on page 4 lists the core upgrade kits that are available by ATM model number.

- If you are loading a MX5200, go to the *Build and Install the MoniPlus2 02.03.xx Software for an MX5200 ATM* section on page 81. This model does not use the typical load process.

When reloading an ATM in the field, including upgrading to Windows 10, you need to collect all of the configuration information currently on the ATM so that you can re-enter it after you load the new software. This activity is also explained in this section.

Note: You do not need to reload the encryption keys when you load a new software image on an ATM in the field. The encryption keys are stored in the Encrypting Pin Pad (EPP) which is not affected by a software reload.

2.1 Identify the ATM Hardware Model

Ensure that your ATM is one of the following MoniMax models. These have been identified as the models that are supported in the MoniACT version of MoniPlus2 release 02.03.xx.

- All 7800 models:
    - 7800I – island
    - 7800T – through the wall
    - 7800L – lobby
- All 7600 models including:
    - 7600T – through the wall
    - 7600I – island
    - 7600FFL – full function lobby, front and rear access models
    - 7600DA – drive up
- 5700 - lobby
- 5600 – lobby, front and rear access models
- 5600T/R – through the wall
- 5300 – lobby
- 5100T – through the wall with SPL

Note 1: Your ATM may have an adequate core for Windows 10, but may need a BIOS upgrade. See *Verify the Core and BIOS* on page 6 for BIOS version information.

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Note 2: the Hyosung 7000, 5200 and 5100 lobby/5100T through the wall ATMs with TTUs will not be supported in MoniACT. You will need to load these using separate images.

2.2 Windows 10 Hardware Support

An H81 or Q87 CE and a minimum 4 GB memory are required to run Windows 10. The newer ATM models such as the 7800 series are already Windows 10 ready. CE/memory upgrade kits are available for most other models and are listed below.

2.3 Upgrade Kits for MoniPlus2 ATMs

As stated in the previous section, most of the newer Hyosung ATMs are already Windows 10 capable including 7800 models and 5700s. The following table lists the upgrade kits currently available for the MoniMax ATMs that would require hardware upgrades to run Windows 10.

ATM Type	H81 or Q87 CE Upgrade Kit Part #*
5100T	7900002271 (to H81)
5300XP	7900002272 (to H81)
5600	7900002176 (to H81)
7600FFL	7900002172 (to H81)
7600T	7900002173 (to H81)
7600I	7900002174 (to H81)

   *Includes 4G RAM.

2.4 5300XP Only – Receipt Printer Type

The 5300XP software distributed by Hyosung is configured for a USB receipt printer. If your 5300XP has a serial receipt printer, you need to install a switch CD to make the change. A switch CD changes one or more configuration items on an ATM.

If you do not know what type of receipt printer your 5300XP ATM has, look at the connector on the cable marked SPR; this is the receipt printer cable. A serial cable has a 9 pin connector.

2.5 Remove the Dial Up Modem in 5100T with H81 Core

If you are loading a 5100T with an H81 core and 10" SPL, remove the modem before you load the software. The modem causes the serial devices to be assigned incorrectly and is not needed by MoniPlus2 when used in the financial institution environment.

2.6 Obtain the Software for the ATM

You can obtain the MoniPlus2 software as follows:

- If you are a Hyosung stager or FSE, contact Hyosung technical support to obtain software and switch CDs/DVDs or download links.

- If you are a VAR employee, contact your channel manager/Hyosung sales representative to obtain the software and switch CDs/DVDs or links.

2.7 Collect the Current Configuration Information

If you are reloading a currently deployed ATM, you need to collect all the current MoniPlus2 configuration information from the ATM prior to installing the new software. You will need to re-enter this configuration information after you load the new software.

There are at least two areas on which you need to concentrate: ATM general configuration values and deposit automation configuration (required only for ATMs that support deposit automation). The remainder of this section explains how to collect this information.

2.7.1 General Configuration Settings

The ATM's general configuration information can be printed on the Config Information receipt available through supervisor. A sample receipt is shown below. This receipt includes:

- ATM hardware settings

- Communications parameters

- Cash cassette configuration

Use the **Supervisor>Configuration>Print All Config** function to print the ATM's general Config Information receipt.

2.7.2 Deposit Automation Settings

For the deposit automation settings, there are four sets of values that you need to capture:

- Depository emulation setup

- XML File Settings

- MICR options

- Misc Check Options

Use the **Supervisor>Configuration>Deposit Config** function to access these deposit values. Appendix B on page 40 contains a worksheet you can use to record these deposit values as they are not printable.

```
[CONFIG INFORMATION]

DATE                  = 04/27/2017
TIME                  = 07:18:29
LUNO                  = 050
MACHINE NO            = HYOSMP2s
DES KIND              = 3DES
LEFT-FDK OPTION       = False
MSG MODE              = NDC
NOTE COUNTING MODE    = TRUE
VOLUME MASTER         = 30
VOLUME DEFAULT VG     = 10
SPACE LINE            = 0
STN                   =
MAC FLAGS             = MAC DISABLED
SCREEN LAYOUT         = 32 X 16
SCREEN FONT SIZE      = 20
CONFIG ID             = 2504
COMMONAID ENABLED
A0000006200620
A0000001524010
A0000000042203
A000000333010108
A0000000980840


[NETWORK INFORMATION]

COMM MODE             = TCP/IP
ATM MODE              = CLIENT
HOST IP               = 156.55.244.137
HOST PORT             = 2026
LOCAL PORT            = 0
DHCP                  = ENABLED
ATM IP                = 10.61.19.10
ATM SUBNET            = 255.255.255.0
ATM GATEWAY           = 10.61.19.1
ATM PRIMARY DNS       = 10.61.4.2
ATM SECONDARY DNS     = 10.61.4.3
MSG FORMAT            = FULL_HEADER
LEN SIZE              = 2
LEN FORMAT            = NETWORK
LEN ADJUST            = 0
LEN EMBED             = 0
RCV TIMEOUT           = 60
RETRY TIMER           = 30
KEEP ALIVE            = TRUE
KEEP ALIVE TIME       = 5 MIN


[CDM/NOTE INFORMATION]

CASH UNIT MODE        = LCU
CST1 DENOMINATION     = 10
CST2 DENOMINATION     = 20
CST3 DENOMINATION     = 50
CST4 DENOMINATION     = 100
CST1 STANDARD NOTE    = 3000
CST2 STANDARD NOTE    = 3000
CST3 STANDARD NOTE    = 3000
CST4 STANDARD NOTE    = 3000
TYPE VALUE (A)        = USD 10
TYPE VALUE (B)        = USD 20
TYPE VALUE (C)        = USD 50
TYPE VALUE (D)        = USD 100
TYPE VALUE (E)        = NOT SET
TYPE VALUE (F)        = NOT SET
TYPE VALUE (G)        = NOT SET
TYPE VALUE (H)        = NOT SET
```

3 Install and Configure the Software

This section explains how to install and then configure all of the software used with the single image base with MoniACT version of MoniPlus2 02.03.xx.

- If you only need to upgrade to the current version of MoniPlus2 02.03.xx, go to the *How to Install a Software Update* section on page 38 rather than this section for instructions on loading the application update.

3.1 Verify the Core and BIOS

New ATMs typically come with the latest cores and BIOS software. If you need to upgrade the BIOS software of an existing ATM in the field, or want to ensure you have the latest BIOS:

- Restart the ATM.

- Press DEL when the boot screen displays to enter the BIOS.

- If you are prompted for a password, enter Hy0sung*.

The BIOS software version number is typically on the BIOS main screen. Use the tables below to determine what version of BIOS software is the latest. Contact Hyosung technical support to obtain a copy of the BIOS software or for assistance.

Widows 7

Core Type	BIOS Version
Q87	P2.02B for MX8800 P2.50B for all other ATM types
H81	5.05A
H61	201A
Q87 Mini	P1.92B

Windows 10

Core Type	Bios Version
Q87	3.02B for MX8800 only 3.50B for all other ATM types
H81	5.11NH
Q87 Mini	1.91B

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3.2 Install the Software

After you set or upgrade the BIOS if necessary, the ATM is ready for the software. It takes approximately 1 hour to install all of the software. If you are reloading an ATM, you typically do not need to reload the encryption keys assuming they are already loaded. The keys are stored in the Encrypting Pin Pad (EPP) which is not affected by a software image reload.
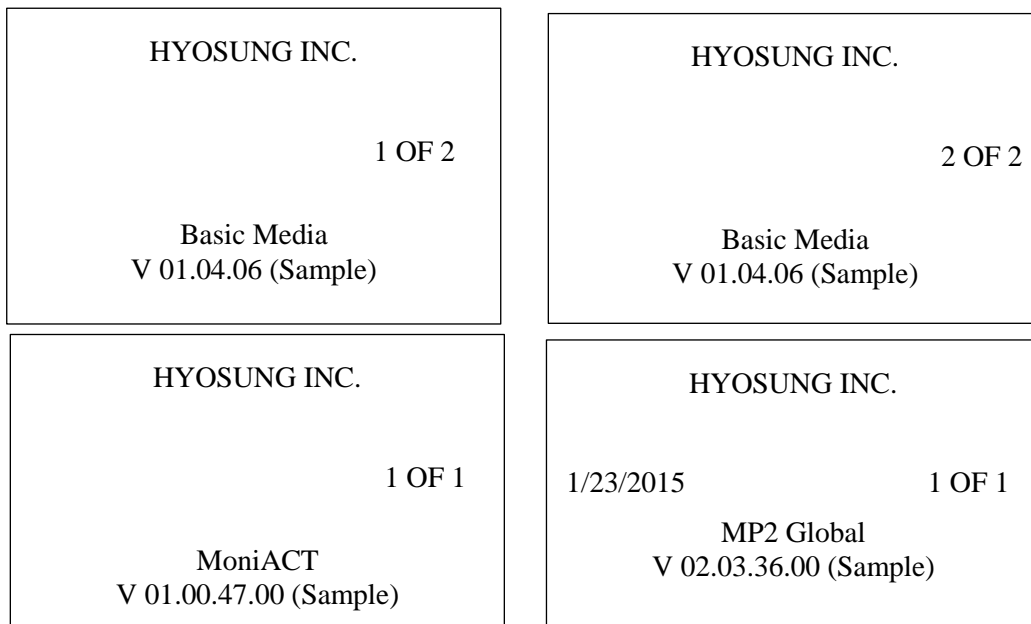
The instructions in this section are organized into sub-sections, but the steps you need to follow are numbered sequentially across all sub-sections – as one long process.

3.2.1 Assemble the Software Installation Media

The software media you need to install MoniPlu2 02.03.xx on a terminal using the single image software is listed below. If you have software labeled XFS Platform and Device Config instead of Basic Media, MoniACT and NHSecurity, refer to Appendix H, *Loading the Software Image,* on page 84 for instructions.

- Basic Media Image – 2 DVDs

- MoniACT – 1 DVD

- NHSecurity – 1 CD

- MoniPlus2 application update – 1 CD

- Optional Device Orientation – 1 CD

- Optional switch CD – for 5300XP only

- Optional customer or network-specific software update CDs, as required

- Optional third-party CDs, as required

Sample only labels are shown below. Refer to your software release notes to verify that you have all of the media you need before starting.

HYOSUNG INC. 1 OF 2 Basic Media V 01.04.06 (Sample)	HYOSUNG INC. 2 OF 2 Basic Media V 01.04.06 (Sample)
HYOSUNG INC. 1 OF 1 MoniACT V 01.00.47.00 (Sample)	HYOSUNG INC. 1/23/2015 1 OF 1 MP2 Global V 02.03.36.00 (Sample)

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If you are reloading an ATM in the field, be sure you also have all of the configuration information you need to reenter before you start. Refer to the *Collect the Current Configuration Information* section on page 5 for information.

3.2.2 Load the Basic Media Single Image Software

Use the following procedure to load the basic media image which contains the Windows operating system, drivers and hot fixes. Refer to the *Troubleshooting* section on page 42 if you have problems while loading the image. It takes approximately 30 minutes to load the basic media.

1. Attach a keyboard and optional mouse to the ATM if you have not done so already.

2. If your CE has a Watch Dog switch as shown in the picture below, you must disable the Watch Dog by moving the switch to the 0 position when the software starts to load. **If you do not disable this switch, the ATM will reboot 10 minutes after you start loading the software.**

   If your CE does not have a Watch Dog switch, skip this step.

3. Insert the first Basic Media Image DVD (1 of 2) into the CD/DVD drive, power the ATM off and then back on to start the image installation process. A progress bar displays as Windows files load.

4. When prompted, remove the first Basic Media DVD and insert the second Basic Media DVD (2 of 2).

   - You will see onscreen messages as the hard disk is configured. Then the ImageX Tool for Windows screen displays as the Windows image restores.

   - The ATM will restart multiple times as it loads and runs configuration and setup scripts.

   - After Windows finishes loading, the completion message "**Basic media installation complete**" displays to you on the Windows desktop. **Wait until you see this message before proceeding.**

5. Press **OK** on the completion message box and remove the DVD.

6. **Manually restart the ATM** and then continue with the next section.

3.2.3 Run the MoniACT Configuration Program

MoniACT installs and configures the XFS platform software required by the ATM devices. The installation for this software takes about 15 minutes. Use the following instructions to run MoniACT.

7. Insert the MoniACT DVD into the drive. The ATM will reboot and the installation will start automatically within a few seconds. This software package installation process is slow so be patient.
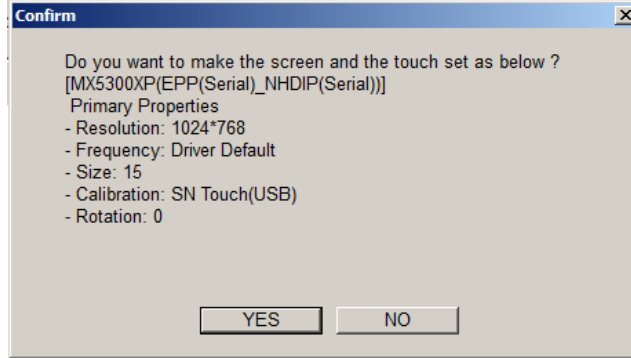
    Note: If you run the MoniACT configuration program without loading the Basic Media just prior, you will have to double-click the **StartMoniAct.bat** file on the MoniACT DVD to start the program.

8. Select your ATM model when prompted. A sample of this screen is included below.

9. Select the devices on this ATM from the SUBMODEL list on the screen. If you do not see the proper combination of devices in the SUBMODEL column, select the one that most closely matches. MoniACT will scan the hardware and install all required USB drivers, even if they are not listed in the SUBMODEL list.
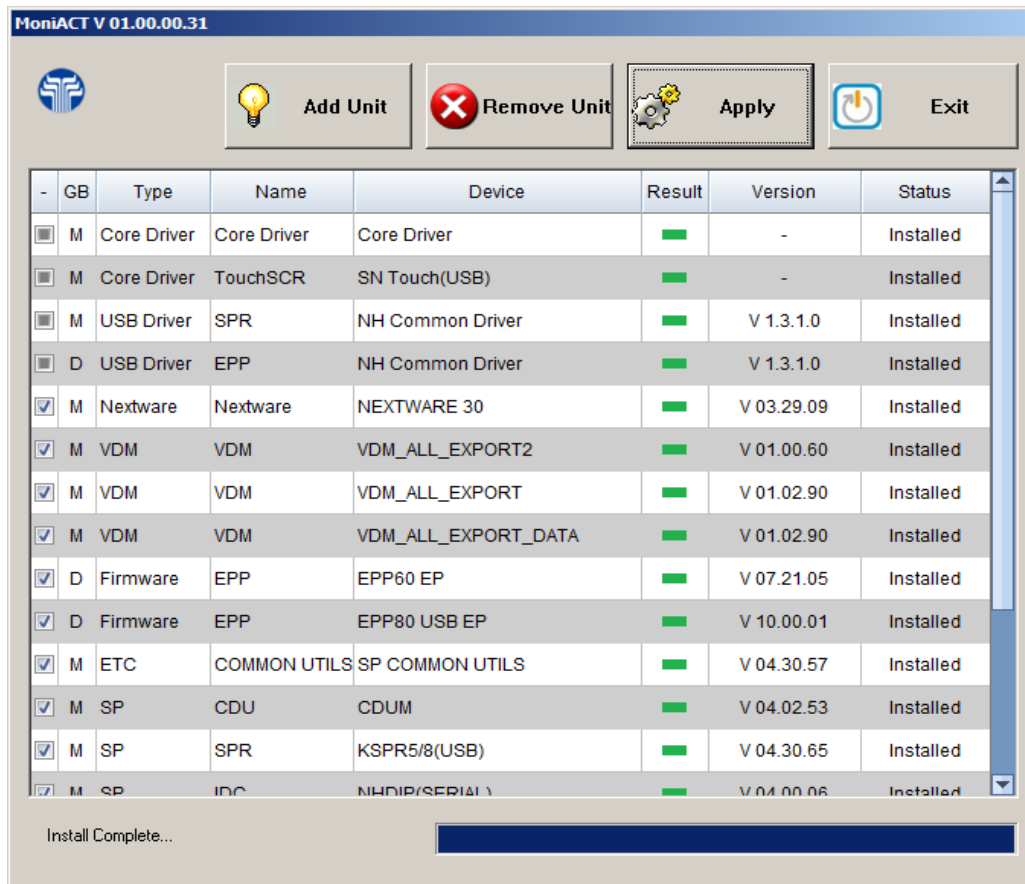
10. Press the **Select** button to continue.
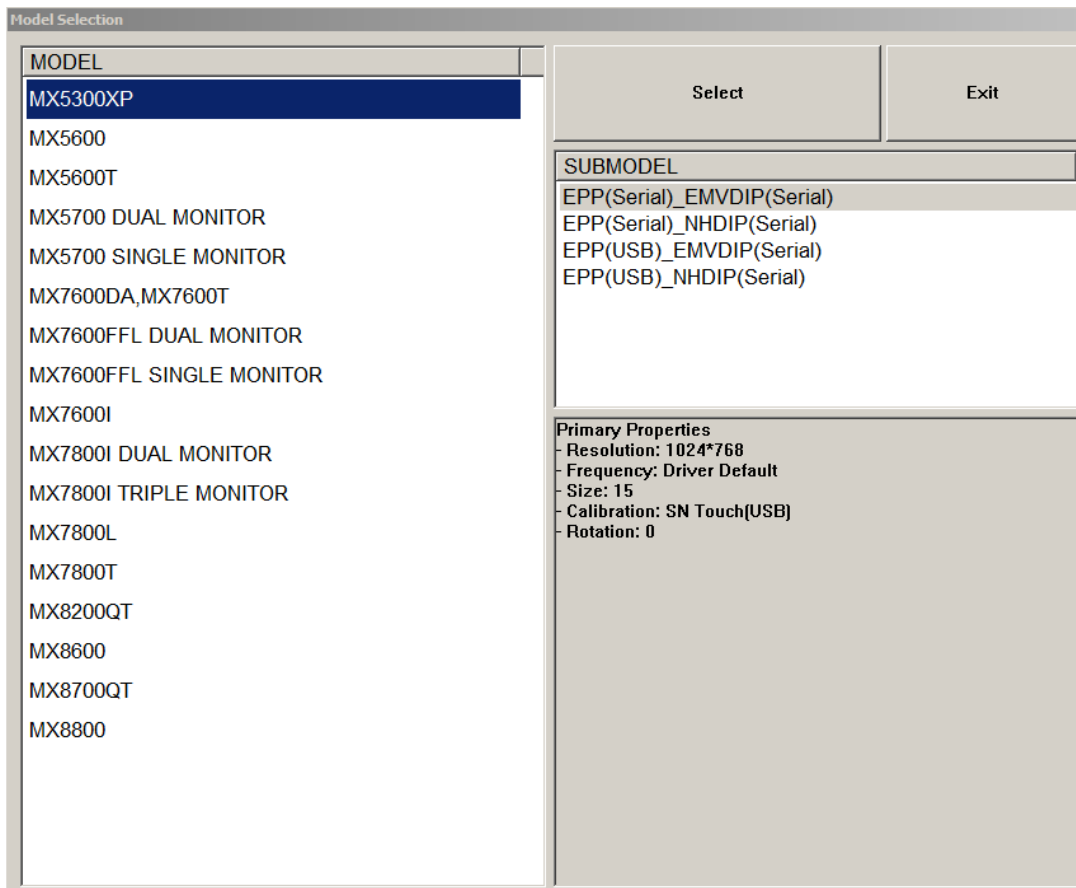
11. Select **Yes** when the screen properties popup box displays as shown at the top of the next page. If you select No, the installation will continue, but the screen calibration may be incorrect and you may have to calibrate the screen(s) manually.

Confirm

Do you want to make the screen and the touch set as below ?
[MX5300XP(EPP(Serial)_NHDIP(Serial))]
 Primary Properties
- Resolution: 1024*768
- Frequency: Driver Default
- Size: 15
- Calibration: SN Touch(USB)
- Rotation: 0

YES   NO

The ATM reboots after you respond to this screen.

12. The Package Installer then installs Nextware, VDM and multiple service providers and firmware files.

13. Next a list of all of the device drivers that have been installed on this ATM displays on a screen similar to the one below. Review this list to ensure that there are device drivers for all devices on this ATM. If drivers are missing, contact Hyosung tech support.

MoniACT V 01.00.00.31

Add Unit   Remove Unit   Apply   Exit

-	GB	Type	Name	Device	Result	Version	Status
■	M	Core Driver	Core Driver	Core Driver	▬	-	Installed
■	M	Core Driver	TouchSCR	SN Touch(USB)	▬	-	Installed
■	M	USB Driver	SPR	NH Common Driver	▬	V 1.3.1.0	Installed
■	D	USB Driver	EPP	NH Common Driver	▬	V 1.3.1.0	Installed
✓	M	Nextware	Nextware	NEXTWARE 30	▬	V 03.29.09	Installed
✓	M	VDM	VDM	VDM_ALL_EXPORT2	▬	V 01.00.60	Installed
✓	M	VDM	VDM	VDM_ALL_EXPORT	▬	V 01.02.90	Installed
✓	M	VDM	VDM	VDM_ALL_EXPORT_DATA	▬	V 01.02.90	Installed
✓	D	Firmware	EPP	EPP60 EP	▬	V 07.21.05	Installed
✓	D	Firmware	EPP	EPP80 USB EP	▬	V 10.00.01	Installed
✓	M	ETC	COMMON UTILS	SP COMMON UTILS	▬	V 04.30.57	Installed
✓	M	SP	CDU	CDUM	▬	V 04.02.53	Installed
✓	M	SP	SPR	KSPR5/8(USB)	▬	V 04.30.65	Installed
✓	M	SP	IDC	NHDIP(SERIAL)	▬	V 04.00.06	Installed

Install Complete...

14. Press **Apply** on this screen to continue.

15. Press **Exit** to finish. The ATM prompts you for a reboot. Answer **Yes** to reboot the ATM.

    After the ATM reboots, the platform installation and configuration are complete. Remove the MoniACT DVD and continue with the next section.

3.2.4 Load the NHSecurity CD

This mandatory package locks down the ATM. There is a standard version and a domain version of this package. Be sure to use the one that is appropriate for this site.

16. Insert the **NHSecurity** CD into the drive.

17. Use Windows Explorer to navigate to the CD and double-click on the **SWUpdate.exe** program.

18. After the ATM finishes installing the security software, the ATM will reboot automatically. The Out of Service screen displays when the ATM finishes rebooting.

19. Remove the NHSecurity CD and continue with the next section.

3.2.5 Load the 5300XP Switch CD

20. If you are loading a 5300XP and have a printer switch CD to load, load it now. This CD is provided when required to change the configuration of the receipt printer from USB to serial. If you are not loading a 5300XP ATM, skip this section.

    - Insert the CD into the drive.

    - Use Windows Explorer to navigate to the CD and double-click on the **SWUpdate.exe** program.

    - The ATM will reboot if necessary and then return to the Windows desktop.

    - Remove the CD and load the application as explained in the next section.

3.2.6 Load the MoniPlus2 02.03.xx.xx Application CD

The MoniPlus2 application takes about 10 minutes to load.

21. Insert the MoniPlus2 02.03.xx.xx application CD into the drive. Using Windows Explorer, navigate to the CD and double-click on the **SWUpdate.exe** program to begin the installation.

    - The ATM will reboot multiple times while installing the software. Remove the CD after the first reboot.

    - You will be prompted to enter your ATM model name (number) during the installation if this is a new installation. Otherwise, you will not be promoted for the model.

    - After the ATM reboots the final time, the application will start. You will see the supervisor screen on the rear (or single) monitor and the out of service screen on the front (dual) monitor.

    Troubleshooting Note: If the customer touch screen is not responsive at this point, it may be plugged into the wrong port. Refer to the *Touch Screen not Responsive* section on page 46 for details.

22. If the location of the device orientation script within the voice guidance file needs to be changed, or omitted all together, load the Device Orientation package through supervisor as a software update. Refer to the *How to Install a Software Update* section on page 38 for instructions on software updates. Then select the required orientation option from the following when prompted:

- 0 = Turn off device orientation − do not include dynamic device orientation at all

- 1 = Prepend device orientation − prepend the dynamic device orientation text to my orientation script text

- 2 = Replace device orientation − completely replace the text in my orientation script with the dynamic device orientation text (default)

The ATM will reboot after you make your selection and then return to the supervisor screen.

3.2.7 Load Any Additional Software

You may need to load one or more of the following packages.

23. Load any network or customer-specific CDs. These are typically loaded as software updates through supervisor, but may be a simple file copy as with the AudioGuidanceData.xml voice guidance file when it is loaded locally instead of downloaded. Refer to the *How to Install a Software Update* section on page 38 for instructions on software updates.

   Troubleshooting Note: If you are instructed to load one or more files into directories that do not exist on the ATM, use Windows Explorer to create the required directories.

24. Load any third-party CDs. Refer to the information provided by the vendor for installation instructions.

3.2.8 Load Hot Fix Update CD

If you have a Windows Hot Fix Update CD, install it at this time.

25. Insert the CD, navigate to the SWUpdate.exe program and select it to start the installation program.

3.2.9 Finish the Software Installation

26. If you disabled the Watch Dog switch on your CE, enable it again by moving the switch to the 1 position when the ATM comes in service. Refer to Step 2 for a picture of the Watch Dog switch.

   If your ATM does not have Watch Dog switch, skip this step.

⟹ **If you are staging ATMs at the warehouse, STOP HERE.** Power down the ATM, remove the keyboard and mouse and follow your established procedures to prepare the ATM for shipment.

⟹ **If you are reloading an ATM in the field, continue with the next section to configure the new software.**

3.3 Configure the Software

Use the values on the ATM's Config Information receipt and Deposit Automation worksheets, if appropriate, to reload the ATM's configuration values. Otherwise, use the values provided by the host or branch personnel.

3.3.1 Enter General Configuration Information

27. Enter supervisor mode and login as Supervisor.

28. Select **1 Configuration.** The Configuration menu displays as shown below.

29. Select **1 Operation Config** and enter the configuration values as listed on the top portion of the Config Information receipt if you have it. If the default value is correct for a setting, you do not need to reenter it. Or for new installations, enter at least the machine number (terminal ID).

30. Select **Enable** for the **9 US Common AID** field if this is a U.S. site. If this is not a U.S. site, skip this entry.

    When finished, press **Previous** to return to the Configuration menu.

31. Select **2 Cash Config** and then **1 Set Cash Mode**. The Set Cash Mode screen displays as shown below. Enter the cash configuration information listed in the CDM/NOTE INFORMATION portion of the Config Information receipt. Or for new installations:

    - Change Note Counting to the value specified by your customer (typically False).

    - Set Cash Unit Mode to the value specified by your customer (typically LCU) and make sure the Support GBRM entry is set to True if your ATM has a GBRM and False if your ATM has an HCDU.

    When finished, press **Previous** to return to the Cash Config menu.
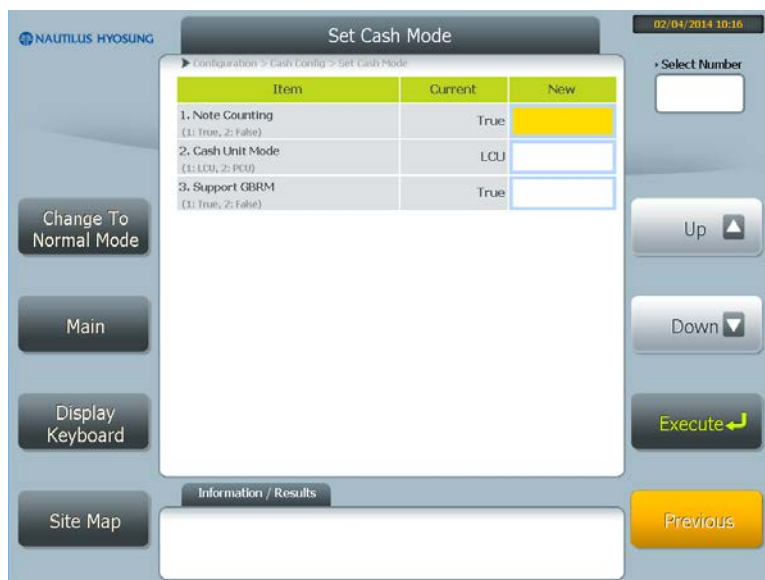
32. Select **3 Set Host Type Mapping**. The Host Type Mapping screen displays as shown at the top of the next page. Enter the denominations to match the host type mapping defined by the host or on the Config Information receipt.

    When finished, press **Previous** until you return to the Configuration menu.

33. Select **99 Next Page** and then **12 Time Zone Config**. The Time Zone Config screen displays as shown below. Page up and down to find your time zone index number. Then enter the **index number** of time zone in which this ATM is located into the input box. Then press **Execute.**

When finished, press **Previous** until you return to the Configuration menu.

Note: It is important that you set the time zone **PRIOR** to setting the time on the next screen so that the correct time is maintained.

34. Select **3 System Config.** The System Config screen displays as shown at the top of the next page. Enter today's date and time and the two volume values:

- Master volume

- VG volume

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When finished, press **Previous** until you return to the Configuration menu.

35. Select **4 Network Config** and then **2 TCP/IP** to enter the communications parameters. The TCP/IP menu displays as shown below.

   - If the network uses DHCP, continue with the Host Information in Step 36.

   - If the network does not use DHCP, select 1 DHCP and change the setting to disabled. Then press Previous and continue with the next step.

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36. Enter the network parameters from the receipt or as specified by the host.

- Local ATM Information – only if not using DHCP:
    - ATM IP Address
    - ATM Subnet Mask
    - Gateway
- Host Information:
    - IP Address
    - Host Port
    - Local Port
      Note: if the host is defined as server, but requires a static port number for the ATM, use this setting to assign the ATM client static port number.

When finished, press Previous until you return to the Configuration menu.

37. Print the Config Information receipt using the **8 Print All Config** function and leave it in the ATM.

$\Longrightarrow$ **If this is a deposit automation ATM that supports cash and/or check deposits, continue with the next section. If this is not a deposit automation ATM, skip to the** *Load the Master Encryption Key – Optional by Network* **section on page 33.**

3.3.2 Enter Deposit Automation Information

This section explains how to configure the deposit automation settings in supervisor and how to run the deposit "Learn" process. The Learn operation is how the software determines when to jump to the deposit emulation screens to allow customers to deposit cash and checks. Use the values you recorded on the *Deposit Automation Worksheets* on page 40 or as defined by the host when configuring this feature.

You must be able to accept the host download and put the ATM in-service to complete deposit automation configuration. If you cannot go in-service now, skip the Learn procedure and compete the rest of the deposit automation configuration. Then return to the Learn process and complete it at a later time when you can go in-service.

38. Select **6 Device Config** and then **1 Device Setup.** The Device Setup screen displays with all devices set to False as shown below.

Set the fields that match the way you want your deposit hardware to behave to True. See the exceptions listed below.

    a. If you want the CCIM to behave like a BNA/BCA, set BNA and BCA to True and ensure that MMA is set to False.

    b. If you want the CCIM to act like a single function device, check or cash accept only, set the desired function to True and the other to False. For example, if you want the CCIM to accept checks only and not accept cash, set BCA to True and BNA to False on this screen.

When you are finished making changes, press Previous to return to the Device Config menu and continue with Step 39.

39. Select **2 Advanced Device Setup Config**. The Advanced Device Setup Config screen displays as shown at the top of the next page.

Define the values on this screen per device as follows:

- Check Acceptor – hardware model number sticker is on side of device

    Note: You must set the Check Acceptor value as shown in the table below or the unit will not operate as expected and could cause problems.

Physical Hardware	Adv. Dev. Setup Config
CSM33/35	CSM3
CSM50	CCIM
BCA	BCA
CCIM	CCIM
CSM20	CSM

- Cash Acceptor – setting should always match the hardware you want to use to accept cash deposits. Be careful when you have multiple devices that can accept cash.

- Cash Dispenser – setting should always match the hardware

- Coin Dispenser – setting should always match the hardware

- TTU – setting should always match the hardware

When finished, press Previous until you return to the Configuration menu.

40. Select **7 Deposit Config** and then **1 Depository Emulation Setup.** The Depository Emulation Setup screen displays as shown below.

41. Select 1 for True or 2 for False for these options as follows:

- Depository Emulation Mode - Select True.

- Transaction menu has Separate Deposit Cash/Check Button - Select True if the transaction selection menu or sub-menu has separate buttons for check and cash deposits. Select False if the transaction selection menu has only one deposit button.

- Test Deposit Mode – Select True to run the 'Learn' operation after this configuration session. The Learn operation is how the software determines when to jump to the deposit emulation screens to allow customers to deposit cash and checks. This entry will also automatically be set back to False after the Learn operation.

Depending upon your answer to the Test Deposit Mode option above, you either need to run the Learn now or come back to this screen at a later time, change the Test Deposit Mode option to True and then run the Learn at that time.

These instructions take you through the Learn now. If you want to finish the configuration tasks first, go to the *Define the Remaining Deposit Settings* section on page 28 then return here to run the Learn operation.

42. Press **Previous** until you exit Supervisor and go In Service. Then perform one or two deposit transaction as explained in the next section so that the application can learn the new deposit flow (**see Caution below**).

Caution: if you perform any transaction other than a deposit after you exit Supervisor at this point, the ATM will not learn the new deposit flow correctly and you will need to go back into Supervisor and define all of your Deposit Emulation settings again.

Further, anything that causes you to go back to the 'Please Insert Your Card' screen (such as pressing Cancel during this deposit) will cancel the learn and you will need to go back into Supervisor and define all of your Deposit Emulation settings again.

3.3.3 Deposit Learn Flow

The software leads you through the learn operation, screen by screen. The Learn process is slightly different depending upon whether you have one deposit button or separate cash and check buttons on the main menu.

During the learn process, the deposit transaction will appear to you as the envelope deposit where you enter the amount; this is normal. Additionally, this deposit transaction will be sent to the host and the host can either approve or deny it. The host response makes no difference to the application. The transaction will not complete successfully; this is also normal.

Use the steps that match your deposit menu configuration – single or multiple buttons. Both are included here and each starts with step 43 as a continuation from the previous section.

NOTE: If you incorrectly configure your deposit transaction through the Learn, you can use the Reset Deposit Settings selection on the Deposit Config menu to reset all settings and start over. This function is the only way to clear the settings defined during the Learn process.

Single Deposit Button Learn Flow

43. Bring the ATM in service and enter your card and PIN. You will see the following screen which will display for a few seconds only.
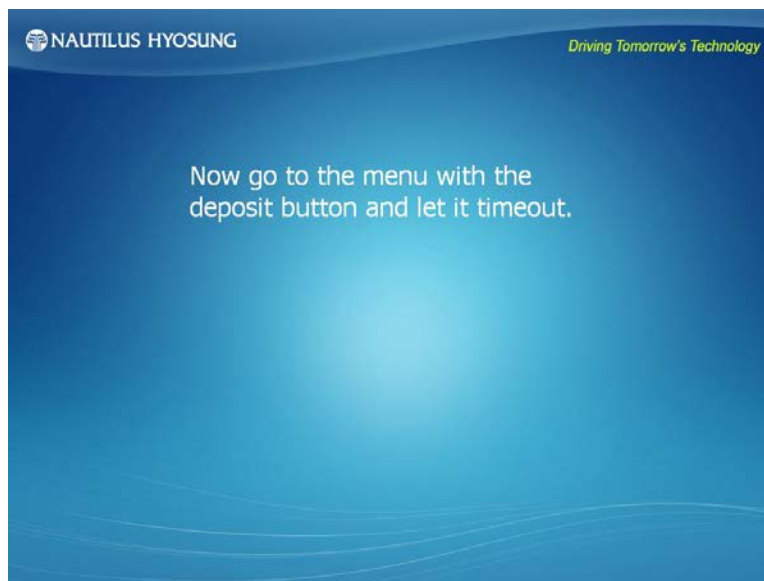
44. Go to the main menu or the menu with the Deposit button and let it time out. The screen shown at the top of the next page will display briefly when the screen times out.
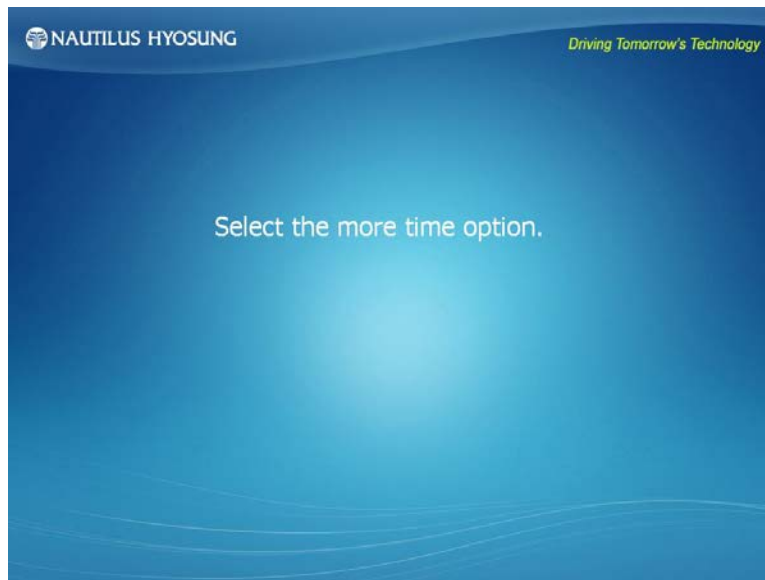
45. Select Yes to More Time when prompted. The screen below will display briefly and then the main menu will redisplay.
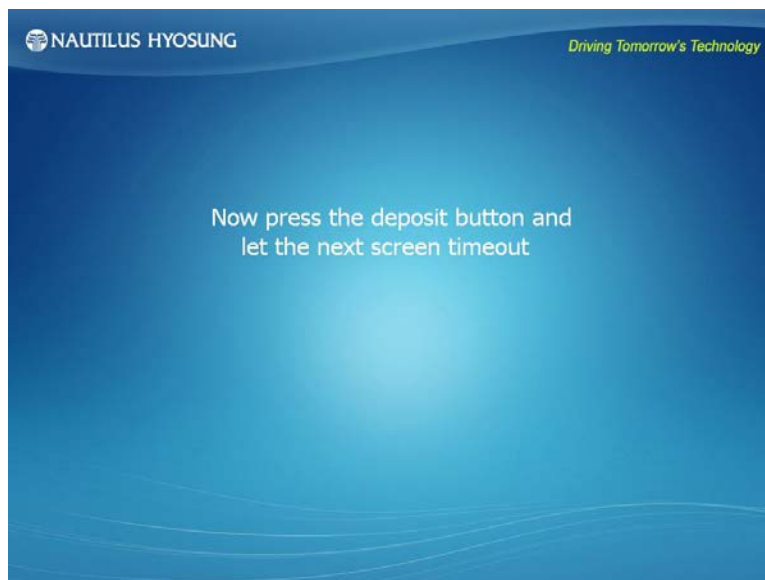
46. Select the Deposit button and let the **next screen** time out; the next screen is typically the account selection screen. The "Select the more time option" message displays again briefly.

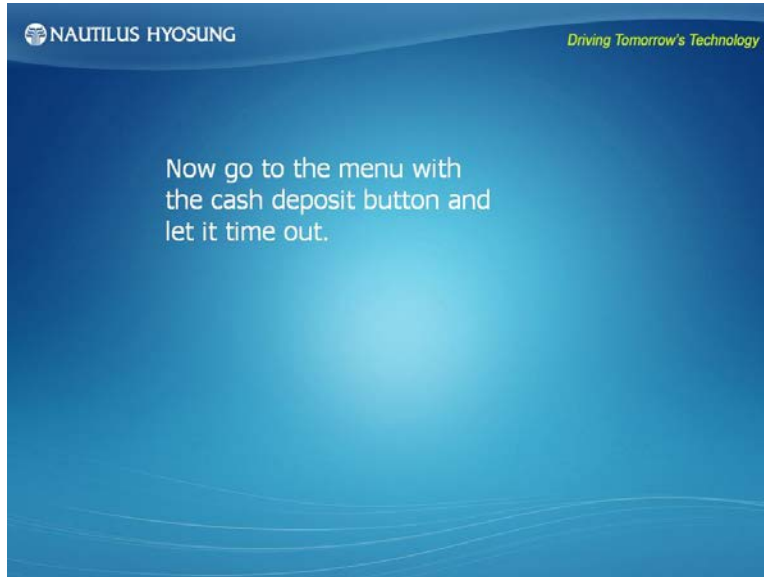47. Select Yes to More Time when prompted. You are next prompted to finish the deposit transaction as shown below.
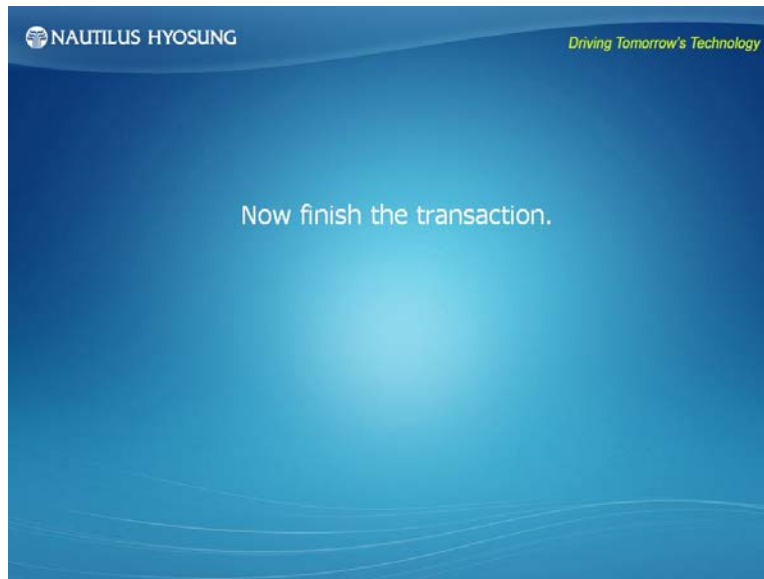
48. Finish the deposit transaction. It will not complete successfully and may even look like there is a problem with the transaction; this is normal. It will typically present the enter amount screen and then stop, but may go a bit further.

The ATM will reboot after you run this transaction and your new deposit automation transactions will be available. Run another deposit transaction and verify that cash and check are offered either on the main menu or a sub-menu after you select the Deposit button. Then run one of each transaction in the customer's transaction set. This will flush out any problems.

Continue with *Define the Remaining Deposit Settings* on page 28.

NOTE: If the host reports that deposits are unavailable, go in and out of supervisor and then run the post-Learn verification deposit again.

Multiple Deposit Button Learn Flow

43. Bring the ATM in service and enter your card and PIN. You will see the following screen for a few seconds only.
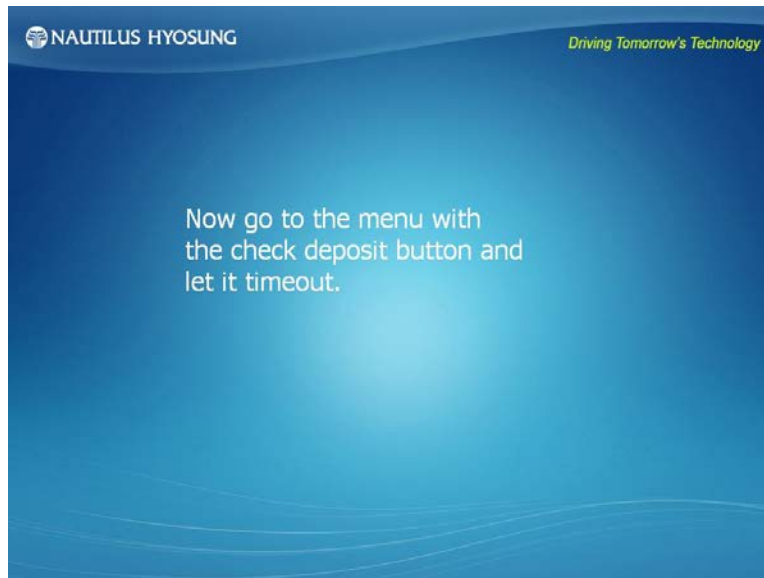
44. Go to the menu with the check deposit button and let it time out. The following screen will display briefly.
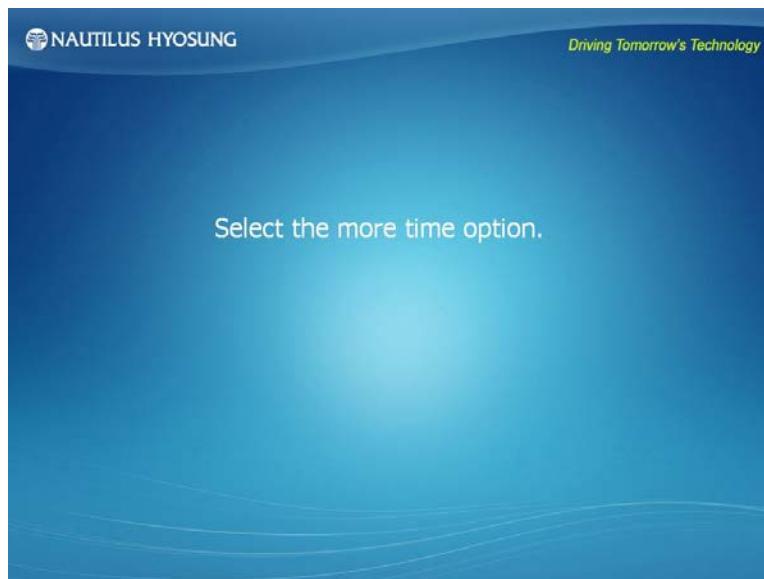
45. Select Yes to More Time when prompted. The menu redisplays and then the screen below displays briefly.
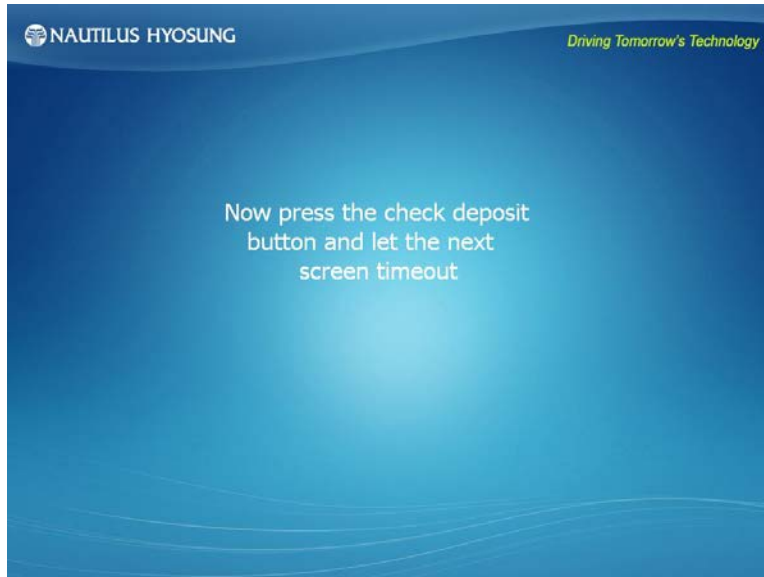
46. Select the Check Deposit button and then let the **next screen** time out; the next screen is typically the account selection screen. You will again be prompted to select the more time option.

47. Select Yes to More Time when prompted. You are next prompted to finish the check deposit transaction as shown below.
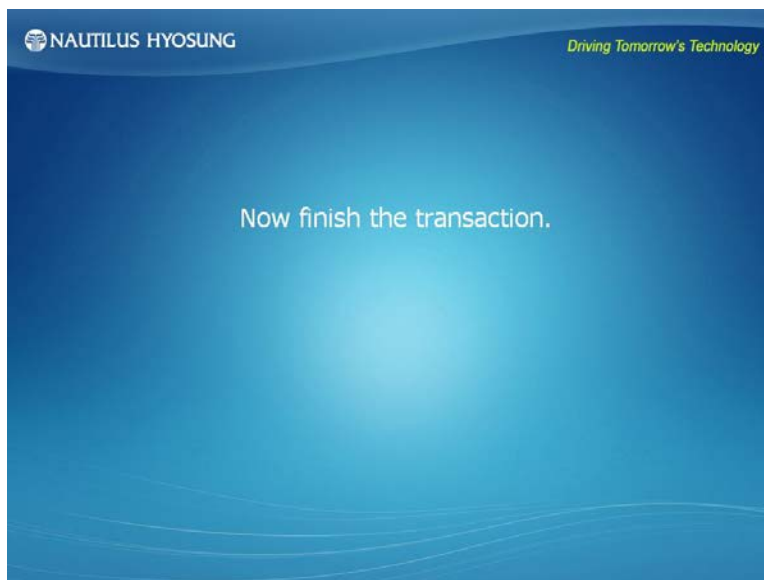
48. Finish the check deposit transaction. It will not complete successfully; this is normal. The flow will return to the Welcome screen.

49. Enter your card and PIN again to run the cash transaction. You will see the following screen for a few seconds only.

    NOTE: If the host reports that deposits are unavailable, go in and out of supervisor and then try again.

50. Go to the menu with the cash deposit button and let it time out. The following screen will display briefly.
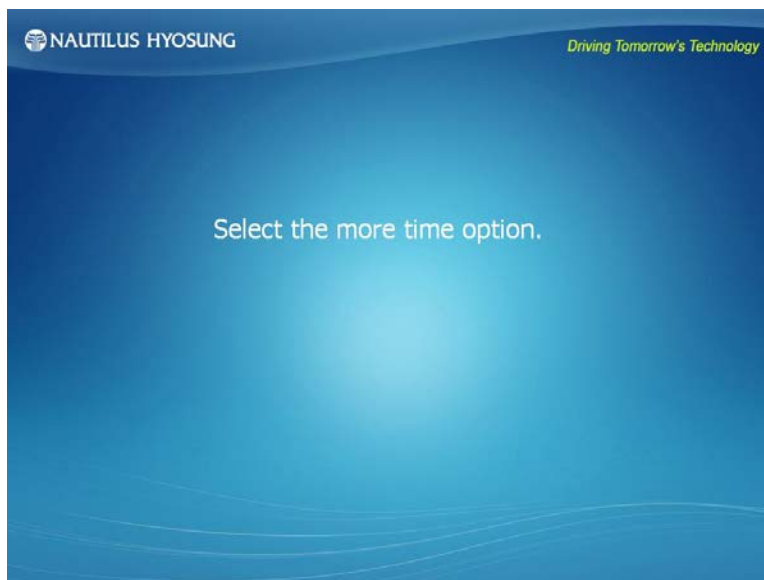
51. Select Yes to More Time when prompted. You will briefly see the screen below display which prompts you to press the Cash Deposit button.
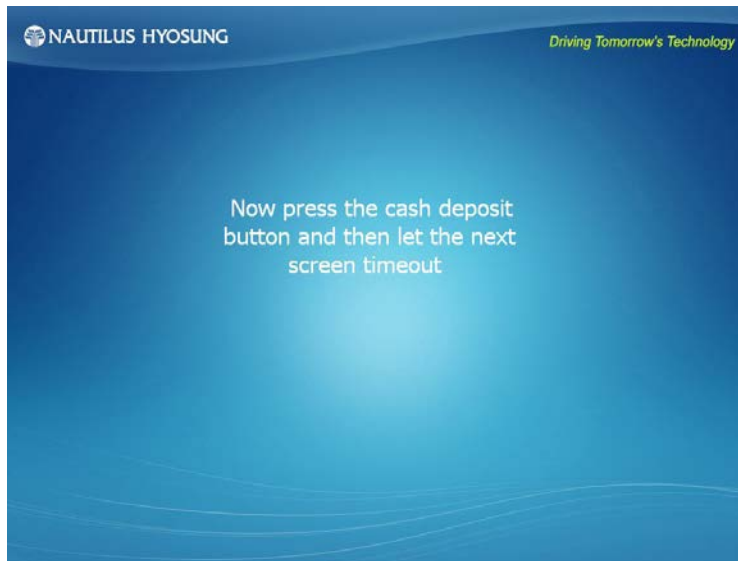
52. Select the Cash Deposit button and then let the next screen time out; the next screen is typically the account selection screen. You will again be prompted to select the more time option.

53. Select Yes to More Time when prompted. You are next prompted to finish the cash deposit transaction as shown below.
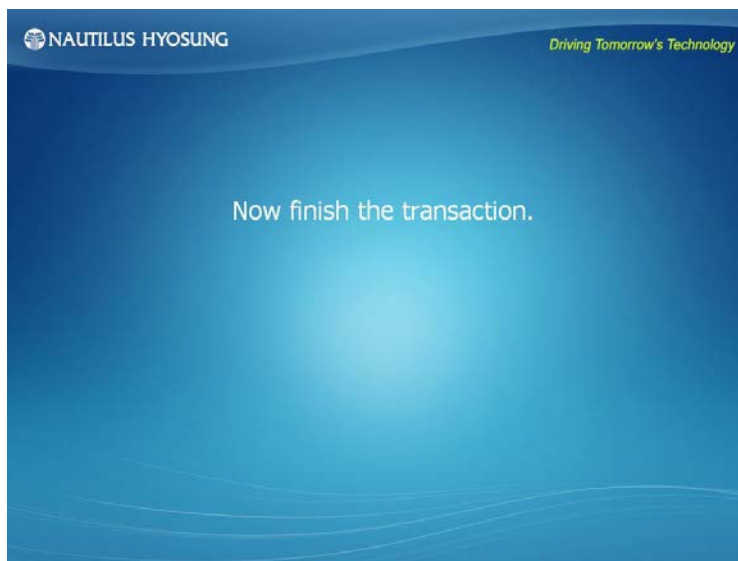
54. Finish the cash deposit transaction. It will not complete successfully; this is normal.

   The ATM will reboot after you run this transaction and your new deposit automation transactions will be available. Run another deposit transaction and verify that cash and check are offered separately on the main menu itself. Then run one of each transaction in the customer's transaction set. This will flush out any problems.

   NOTE: If the host reports that deposits are unavailable, go in and out of supervisor and then run the deposit again.

3.3.4   Define the Remaining Deposit Settings

The remaining settings define the XML File Settings, MICR validation requirements and miscellaneous check deposit settings.

3.3.4.1   Define the XML File Settings

The XML File Settings allow you to define the host transaction reply data that is used to populate several fields in the deposit XML file. Use the following steps to configure these values.

55. Press the **Change to Supervisor Mode** button to reenter supervisor mode and login as Supervisor.

56. Select **1 Configuration** and then **7 Deposit Config.** The Deposit Config menu displays as shown below.

57. Select **2 XML File Setting**. The XML File Setting menu displays as shown below.

58. Select **1 XML Type** on the XML File Setting menu. The XML Type screen displays as shown below.

59. Select the XML file format that the ATM should generate for the consolidation server: NCRXML or NHXML. If the host is using the NCR consolidation server or one compatible with it, you must select NCR.

    If you do not use a consolidation server and, therefore, do not need images and XML files kept for uploading, select 3 NONE. If you do not use a consolidation server, but do not select NONE for this entry, the unused check images could eventually exhaust the disk space on the ATM.

60. Press the Previous button to return to the XML File Settings menu and continue as follows:

    - If you have a consolidation server, continue with Step 61.

    - If you do not have a consolidation server, go to Step 75 on page 32.

61. Select the **XML Account Number Element** menu item. The XML Account Number Element screen displays as shown at the top of the next page.
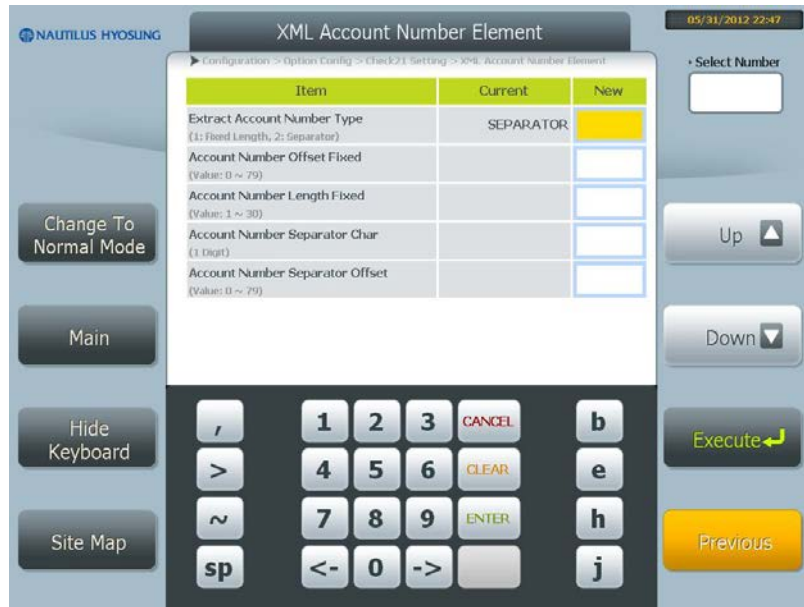
62. For the Extract Account Number Type, select **1 FixedLength** or **2 Separator** depending upon the format of the account number sent to the ATM in the host PPD data.

   - If FixedLength, you must also enter the starting position of the account number (Offset) and the length of the account number data. Continue with Step 63

   - If Separator, you must also enter the Separator Character that follows the account number data and the starting position of the account number (Offset). Continue with Step 65.

63. For the **Account Number Offset Fixed** field, enter the beginning position of the account number (offset) in the PPD data as a numeric value between 0 and 79. This entry is zero-based.

64. For the **Account Number Length Fixed** field, enter the number of digits in the account number as a numeric value between 1 and 30. This entry is zero-based. Continue with Step 67.

65. For the **Account Number Separator Char,** press the right-arrow button (→) to select an alpha character or the left arrow button (←) to select the symbol of the separator character that follows the account number in the PPD data as defined by the host.

66. For the **Account Number Separator Offset,** enter the beginning position (Offset) of the account number in the PPD data as a numeric value between 0 and 79.

67. Press Previous until you return to the XML File Settings menu.

68. Select **XML Deposit Type Element** on the XML File Settings menu. The XML Deposit Type Element screen displays as shown at the top of the next page.

69. Select the **OPCode Byte** field and enter the byte number used for the account type identifier in the opcode as defined by the host.

70. Select the **OPCode Char of DDA** and press the right-arrow button (→) on the virtual keyboard to select the alpha opcode character (A – I) for DDA as specified by the host.

71. Repeat Step 70 for the remaining entries on the screen: Savings, Payment, Cashed Check, etc. Note that Checking and Credit are not currently supported in the XML. You can either enter them now for future support, or skip them now and enter them later.

72. Press Previous to return to the XML File Settings menu.

73. Select **XML Item Type Element** on the XML File Settings menu**.** The Item Type Element screen displays as shown below. This screen enables you to enter the routing number for On-Us checks to populate the <ItemType> field in the XML file.

74. Enter the routing number to be used to identify On-Us checks. Then press Previous until you return to the Deposit Config menu.

75. Select **MICR Options** on the Deposit Config menu. The MICR Options screen displays as shown below.

76. Select True or False as specified by the host for each of the MICR items:

- Accept or reject Image Replacement Documents (IRD)

- Must detect at least 1 MICR character on the check before the check will be accepted

- Allow or do not allow reject characters in the MICR line when determining to accept the check

- Require that the check pass Modulus 10 validation before it will be accepted

77. Press Previous until you return to the Deposit Config menu.

78. Select **Misc Check Options** on the Deposit Config menu. The Misc Check Option screen displays as shown at the top of the next page.

79. Select 1 for True or 2 for False to the Accept Money Orders and Accept Savings Bonds questions.

80. Enter the maximum amount to accept for a check. This amount is in cents (100 - 99999999).

81. Press Previous until you exit deposit configuration and return to the ATM Status window.

> **Troubleshooting Note:** If several devices are listed as "open failed" on the Initializing Devices screen when the application initializes, you have a loose connector for a USB cable on the core. Refer to the *Several Devices Listed as "Open Failed" on Initializing Devices Screen* section on page 44 for details on addressing this problem.

3.4 Load the Master Encryption Key – Optional by Network

If you need to enter the mater key, use the following procedure. If the host uses remote key transfer (RKT), you may or may not do not need to load the master key. Contact your network representative if you need details.

If you do not need to enter the master key, skip this section and continue with Step 87 in the *Run Diagnostics* section on page 35.

You need two passwords to enter the master key. Contact Hyosung technical support if you do not know the passwords required to access the Key Manager menu to load the master key.

Note: Although Hyosung supervisor functions exist to enter the Comms and MAC keys, the Secure Key mandates from VISA and MasterCard imply that only the Master Key be manually entered at the ATM. Therefore, **Hyosung recommends that any keys other than the Master Key always be downloaded from the host, encrypted under the Master Key.**

82. Login either a **1 Supervisor** or **3 Technician** and enter the password if you are not already logged in.

83. Select 8 **Diagnostics**.

84. On the Diagnostics menu, select **4 Key Manager**. Go to the front display on the ATM. The Key Manager menu displays as shown below.

85. Select **1 Enter Password** and press Execute. The password screen shown below displays to you. Follow the instructions on the screen to login. Remember you must press Execute before you can enter your passwords.
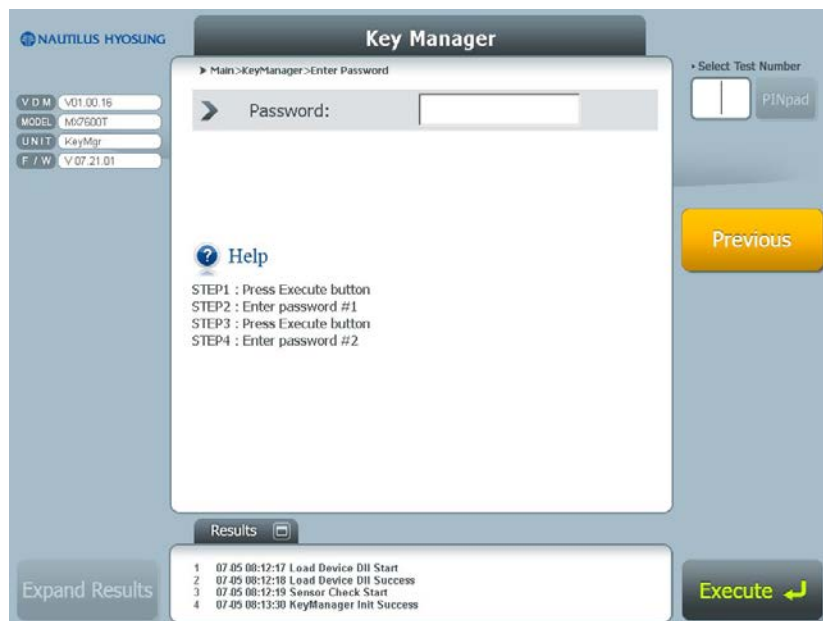
86. After you successfully enter your passwords, the Key Manager menu shown below displays to allow you to load the master key.

Note: Unlike MoniPlus2 01.04 xx, the ATM will NOT reboot after you exit MoniPlus2 02.03.xx diagnostic mode unless the function that you perform requires a reboot.

3.5 Run Diagnostics

After you configure the application, you should run diagnostic tests on all the hardware modules and preform any other standard tests defined in your process.

87. On the rear monitor, press the **Change to Supervisor Mode** button if you are not already in supervisor.

88. Login as Supervisor with a password of 111111. The Select Menu will display to you as shown below.

89. Select the **8 Diagnostics** menu item and press Execute. The Diagnostic Main Menu will display as shown below.

90. Select each device from the main menu and press the Execute button to access the diagnostics tests available for the device. Run at least the **initialization** function for each device to ensure that they are operating properly.

Refer to the **MoniPlus VDM Manual (Diagnostic)** or similar document for details on the diagnostic tests if you need details. You will need test cash, checks and cards for these tests.

91. After you run all of your diagnostic tests, continue with the next section to remove load from CD/DVD capability.

3.6 Remove the Load from CD/DVD Capability

Remove the ability to load from CD/DVD for the terminal through the BIOS. The key you press to enter the BIOS is different depending upon the PC core on the terminal. Contact Hyosung technical support if you need assistance.

3.7 Bring the ATM Live and Complete the Installation

92. Have the CIT or appropriate branch personnel load cash into the ATM. If the CIT or branch personnel are not available, you may have to return to complete this installation.

93. Bring the ATM in service and run a test transaction as dictated by the bank - typically a balance inquiry transaction with receipt. Perform any additional transaction tests required by the bank.

    - Verify that the receipt contains the header logo (if included), correct location address and terminal ID (if used). This will also test the card reader and receipt printer.

    - If the ATM does not come in service, call the Hyosung or bank help desk for assistance.

94. Plug in your headset or ear buds and run a second balance inquiry, verifying that the VG is working properly.

95. If required, run settlement and balance the ATM with the branch/host.

96. Train the tellers or CIT, as appropriate, on loading receipt paper, loading cash, clearing receipt paper jams and removing check and cash jams. Details on these tasks are included in the MoniMax operator manual for your ATM.

97. Set the Cencon Kaba-Mas lock according to the requirements defined by the bank.

98. Transfer all ATM keys to the branch personnel.

99. Contact your Hyosung installation coordinator to notify him that you have completed the installation.

A How to Install a Software Update

This section provides simple, step-by-step instructions for installing software updates on a MoniPlus2 ATM. Software updates are typically distributed as a link to a downloadable file, but can also be distributed on CD/DVD or on a USB flash drive. Contact your support group if you need to obtain updates.

The instructions in this section assume that you already have the software update media and are installing the update while physically at the customer site. Refer to the *Using MoniView to Distribute a MoniPlus2 Software Update* section on page 87 if you need information on downloading a software update to a MoniPlus2 terminal using a remote, software distribution program.

A.1 Check the Software Version

You need to verify that the ATM is running the version of the application that supports the update. Refer to the application version number listed on the ATM Status window as shown in the circled area on the sample screen below and to the release notes for the update you are installing.

A.2   Install the Update

Access the supervisor main menu and then use the steps below to load the software update CD or USB.

1. Select **9** Software Update from the supervisor menu. The Software Update screen displays as shown below.

2. Insert the software update CD or USB into the drive, select **1 Execute Software Update**. The update will start immediately and the ATM may reboot multiple times while the update installs.

3. When the update completes, a short message displays and the application loads. Remove the CD or USB.

4. To verify that this package installed successfully, return to the Select menu and select **1 Configuration** > **9 Version Information** > **3 Installed Packages**.

    The Installed Packages screen displays a list of all the installed packages. Ensure that the package name is listed as installed and the Status is listed as Good.

    If the package does not display in this list after you install it, or if the Status is Bad, contact Hyosung technical support:

    • Email: techsupport@nhausa.com

    • Phone : 877-HYOSUNG (496-7864)

5. Move the mode switch to Normal to go back in-service.

B Deposit Automation Worksheets

Record your unique Deposit Automation values on these worksheets before you reload your ATM. If you need information on how to find these values, refer to the *Enter Deposit Automation Information* section on page 18 for information.

Deposit Emulation Setup Settings	Value
Separate Cash/Check Buttons (True/False)	

Check21 XML Configuration Parameters	Value
Mode (NCRXML, NHXML or NONE) (If NONE, skip the rest of this section)	
XML Account Number Element	
Extract Account Number Type (Fixed Length or Separator)	
For Fixed Length Account Number – Current Offset (0-79)	
For Fixed Length Account Number – Account Number Current Length (1-30)	
For Account Number Separator– Current Separator Character	
For Account Number Separator – Current Separator Offset (0-79)	
XML Deposit Type Element	
Account Type Opcode Byte (0-7)	
DDA Opcode Char (A, B, C, D, F, G, H, I)	
Savings Opcode Char (A, B, C, D, F, G, H, I)	
Payment Opcode Char (A, B, C, D, F, G, H, I)	
Cashed Check Opcode Char (A, B, C, D, F, G, H, I)	
Checking Opcode Char (A, B, C, D, F, G, H, I)	
Credit Opcode Char (A, B, C, D, F, G, H, I)	
XML Item Type Element (Routing Number) – Current Item (1-30 digits)	

MICR Settings	Value
Allow IRD Option (True/False)	
Must Detect MICR Ink (True/False)	
Allow Reject Characters (True/False)	
Enforce Mod10 (True/False)	

Misc Check Options Settings	Value
Accept Money Orders (True/False)	
Accept Savings Bonds (True/False)	
Maximum Check Amount (100 – 99999999 cents)	

C Troubleshooting

This section contains information on problems that can occur during and after installation. Each problem listed in this section contains:

- Problem name or description

- Tools required to address the problem, if required

- High-level or step-by-step instructions as required to solve the problem

This section will be updated when problems are identified.

C.1   CD/DVD Load Will Not Start

If the CD/DVD does not start loading automatically after you put it into the drive, you need to use the Boot Menu to start the load as described below.

1. Power down and then power up the ATM. As soon as the MSI mainboard power-up screen displays, press F11. The message "Entering Boot Menu" should display at the bottom of the screen. (You may need to press F11 multiple times until you see the message.) The boot menu will display as follows:

```
┌────────────────────────────────────────────────┐
│                                                │
│          Please select boot device:            │
│                                                │
├────────────────────────────────────────────────┤
│  ┌──────────────────────────────────────────┐  │
│  │ SATA : 3M-SAMSUNG HD322GJ                │  │
│  └──────────────────────────────────────────┘  │
│    CD/DVD : 4M-TSSTcorp CDDVDW TS-H6           │
│                                                │
│                                                │
├────────────────────────────────────────────────┤
│                                                │
│        ↑ and ↓ to move selection               │
│        ENTER to select boot device             │
│        ESC to boot using defaults              │
│                                                │
└────────────────────────────────────────────────┘
```
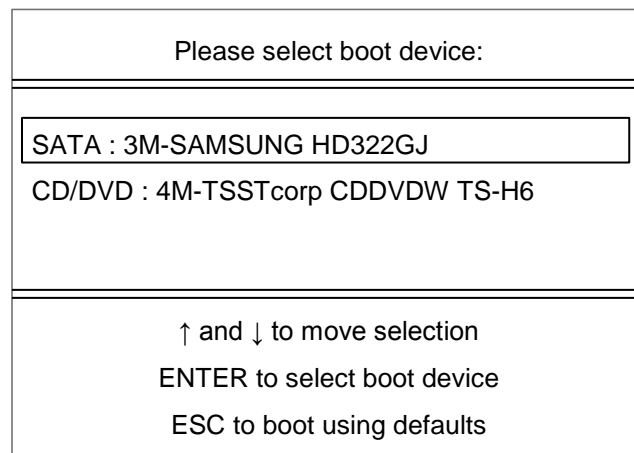
2. Press the ↓ key once to highlight the **CD/DVD** entry.

3. Press the **Enter** key to start the load. The image restore will begin immediately.

Note: If you are installing the software through MoniACT, refer to the *MoniACT Installation Does Not Auto-Start* section on page 51 if the installation does not automatically start.

C.2   Cannot Boot from USB Stick

If you are trying to boot from a USB stick and the ATM will not boot from it, you probably have the BIOS set incorrectly for USB boot. You may see the message "Reboot or Select Proper Boot Device" display on the screen or the USB may not be listed in the boot menu.

Note: the G41 and H61 are set to boot from other devices by default; therefore, you will not have this problem with these CEs.

To enable boot from USB on a 945 CE:

1. Connect a keyboard to the ATM.

2. Power up the ATM and press the Delete key when the boot screen displays to access the BIOS Setup Utility.

3. Select the Advanced menu.

4. Select the **USB Configuration** item and press Enter.

5. Select the **Legacy USB Support** item and press the dash (-) key until **Enabled** displays.

6. Press **ESC** to return to the main Advanced menu.

7. Save your settings by selecting the **F10 Save & Exit** item and pressing Enter. The ATM should now boot from the USB stick.

C.3   Receipts too Long/Have Blank Lines

If the receipts are printing with many blank lines, making the receipt too long, the receipt printer is erroneously set to print on black mark paper. To set the receipt printer for non-black mark paper:

1. Open the top box of the ATM and locate the red and white DIP switch pack below the receipt paper as shown in the picture below.
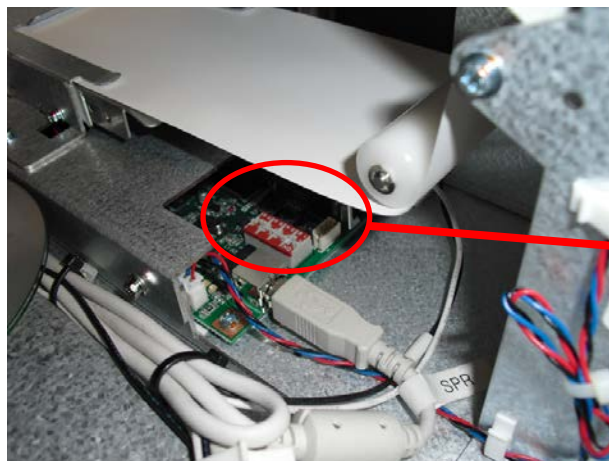
Switch pack

2. Move switch 6 to the ON position by pushing the switch toward the ON label at the top of the pack and away from the line of numbers along the bottom of the pack. The picture below shows switch 6 in the ON position.

ON position
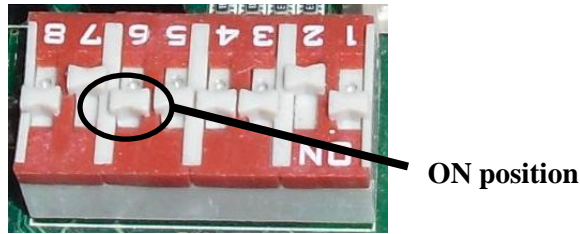
3. Power down the ATM completely and then power it back up (hard reboot) to reset the printer.

4. Perform another transaction with a receipt to verify that the receipt printer is no longer set for black mark paper.

C.4   ATM Reboots While Loading Image

If your ATM reboots while loading the software image, your CE probably has a Watch Dog switch and you did not disable it. Move the Watch Dog switch to the 0 position and start the software load again. The picture below shows the Watch Dog switch.

You must re-enable the Watch Dog switch, by moving it to the 1 position after the software loads.

C.5   Several Devices Listed as "Open Failed" on Initializing Devices Screen

Some HUB1 USB cables have a loose connector that does not plug securely into the USB3 port on the core, particularly when the cable retaining bracket is removed. When this problem occurs, the cable does not appear loose, but several devices will not initialize and will be listed as "open failed" on the Initializing Devices screen when the application initializes. This issue can occur on all core types. The picture at the top of the next page shows the HUB1 USB cable plugged into the USB3 port.

Other symptoms of this problem include the unavailability of anything that plugs into this hub, such as the Panel Control board that controls the sensors, including the EPP and supervisor switch. If the supervisor switch does not respond when moved, this may be your problem.

You can also use Device Manager to verify this problem - some of your devices/sensors will be missing from your device list. The picture on the left at the top of the next page shows a sample of the devices that should be displayed to you in Device Manager when the HUB1 USB cable is connected properly. The picture on the right shows the devices missing as would occur when the HUB1 USB cable is not connected properly, particularly the PNC and EPP would be missing. The actual lists that display to you are ATM dependent.

HUB1 USB cable connected properly

HUB1 USB cable not connected properly

C.6   Touch Screen not Responsive

If the customer screen is not response after you load the Windows and XFS Platform software and the application, the monitor cables are plugged into the wrong connectors on the CE. The cables need to be configured as:

- Customer monitor – plugged into the DVI connector

- Operator panel – plugged into the CRT connector

Attach the cables as listed above and then test the customer monitor again. If the monitor is still experiencing problems after you re-attach the cables, contact Hyosung tech support.

C.7   ATM Default Display Resolutions

Use the following information if you need to know the default resolution used for the ATMs on which MoniPlus2 can be installed.

- MoniMax 7800I - 1920 x 1080

- MoniMax 7800T/7800L/7600/7070/5600/5300/5200/5100 - 1024 x 768 (default), 800 x 600 (configurable option for some)

- MoniMax 7100T/7000/5100T - 800 x 600 (default)

C.8   How to Retrieve the Application Log and Electronic Journal Files

When issues occur at the ATM, you may be asked to retrieve the application log file and the electronic journal (EJ) files to a USB stick. You retrieve these files in supervisor using the Copy Logs function on the Select Menu. You can login as Supervisor or Operator to access the Copy Logs menu.

C.8.1 Copy the Application Log Files

Use the following steps to copy the zipped application log files to a USB stick.

1. Insert a USB stick into an open USB port on the ATM.

2. Select **4 Copy Logs** on the Select Menu. The Copy Logs menu displays as shown below.
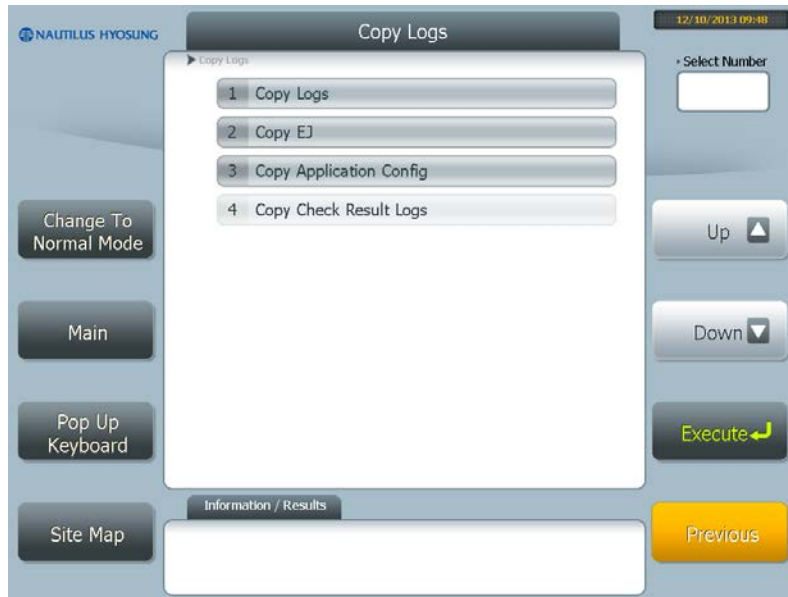
3. Select **1 Copy Logs**. The Copy Log menu displays as shown below.
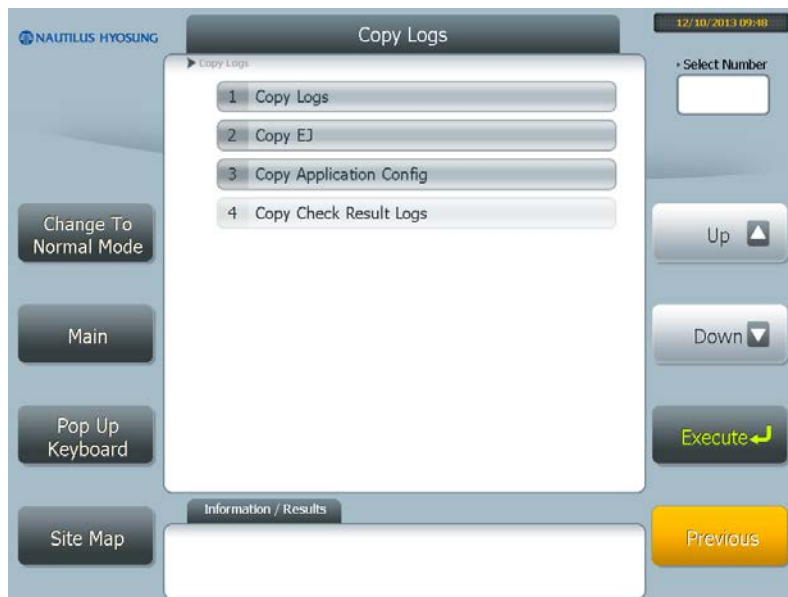
4. Select **1 Copy Logs**. The Copy Logs copy options screen displays as shown below.
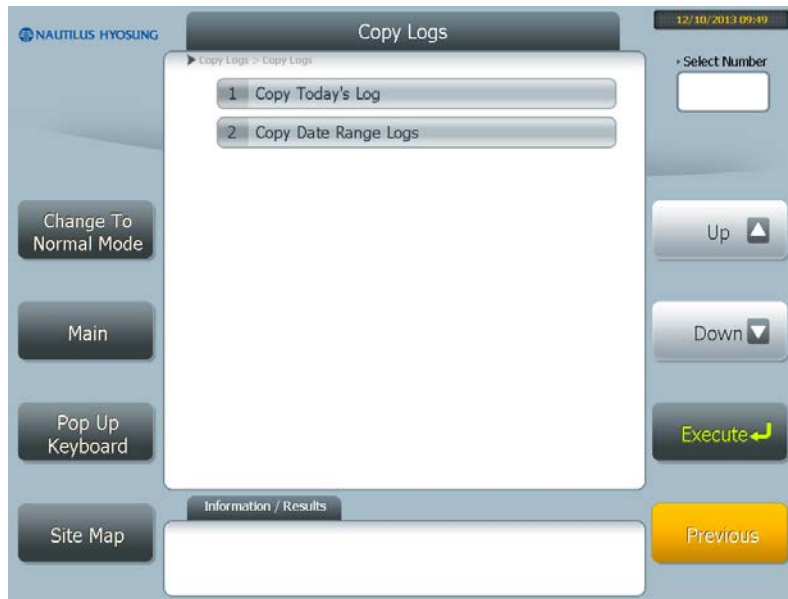
5. Select **1 Copy Today's Log** to retrieve today's logs or select **2 Copy Date Range Logs** to retrieve the logs for a particular time period.

    - When you select **1 Copy Today's Log**, you must press the Execute Copy button to copy the logs to your USB stick.

    - When you select **2 Copy Date Range Logs,** you must enter the start and end dates for the range you want. Then press Execute Copy to copy the logs to your USB stick.

    The application log filename has the format APLog_123456_20131210_20131210.zip, where '123456' is the ATM machine number and '20131210_20131210' is the start and end date of the log files retrieved. The sample name shown is for Today's Log, which uses the same start and end date. If you copy a range, the start and end dates will be different.

6. If you also need to retrieve the EJ files continue with the next section, *Copy the EJ File*. Otherwise, remove your USB stick and press Previous until you return to the Select menu. The press **Change to Normal Mode** to exit supervisor.

C.8.2 Copy the EJ File

Use the following steps to copy the zipped EJ file(s) to a USB stick.

1. Insert a USB stick into an open USB port on the ATM.

2. Select **4 Copy Logs** on the Select Menu. The Copy Logs menu displays as shown below.

3. Select **2 Copy EJ**. The Copy EJ menu displays as shown below.

4. Select **1 Copy Today's EJ** to retrieve today's EJ file only or select **2 Copy Date Range EJ** to copy EJs for a particular time period.

   - When you select **1 Copy Today's EJ**, you must press the Execute Copy button to copy the logs to your USB stick.

   - When you select **2 Copy Date Range EJ,** you must enter the start and end dates for the range you want. Then press Execute Copy to copy the EJ to your USB stick.

   The EJ filename has the format ej_123456_20131210_20131210.zip, where '123456' is the ATM machine number and '20131210_20131210' is the start and end date of the ej files retrieved. The sample name shown is for Today's EJ, which uses the same start and end date. If you copy a range, the start and end dates will be different.

5. Remove your USB stick and press Previous until you return to the Select menu. The press **Change to Normal Mode** to exit supervisor.

C.9   Copying the EP/SP Logs Using VDM

You can copy the EP/SP logs using a function available through VDM. You will need a USB stick and the start and end dates for which you need to retrieve the logs.

1. With the VDM diagnostics main menu displayed, select **Maintenance** and press **Execute**. The Maintenance menu displays as shown below.

2. Select **2 Save SP/EP Log Data to USB** and press **Execute**.

3. Select **1 All** to copy all logs or you can copy individual logs by selecting 2 SP or 3 EP only. Then press **Execute**. You are prompted to enter the start and end date for the logs as shown at the top of the next page.
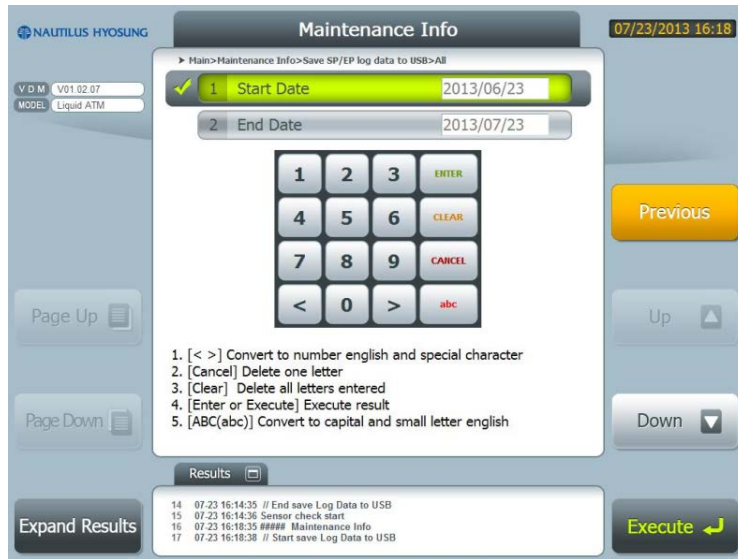
4. Select the start and end dates for which you need to retrieve the logs and press **Execute**.

5. Insert your USB stick into an open USB slot. The copy will start immediately and a message box with a progress bar will display onscreen while the files are copied to USB.

6. Press OK to finish and then remove your USB stick.

   The files are placed in a zipped file labeled SPEP_*StartDate-EndDate*.zip on the USB stick where SPEP reflects the type of logs you requested (SPEP, SP or EP) and the start and end dates are in the format YYYYMMDD.

C.10 MoniACT Installation Does Not Auto-Start

This can occur if the installation DVD was not created from the ISO image or if you did not install the Basic Media just prior. You can manually start the installation by executing the **StartMoniAct.bat** file in the root of the DVD.

C.11 Changing the HCDU Low Bill Sensor Value

Each cassette in the HCDU contains a low bill sensor strip that triggers a low bill warning when the cash supply in the cassette reached that point. The strip is perforated and divided into 5 sections so that a warning can be set to occur at 100, 200, 300, 400 or 500 bills remaining in the cassette. Each portion of the strip equals 100 bills. The figure at the top of the next page shows the low bill sensor strip in an empty cassette set to trigger a warning at 500 bills – with all 5 sections intact.
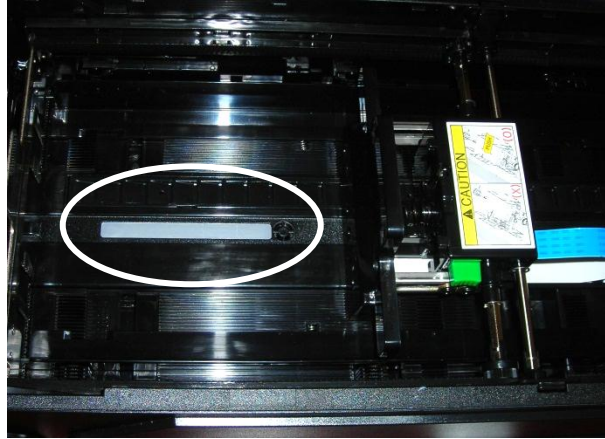
To change the low bill sensor value:

1. Remove from the ATM the cassette for which you need to change the low bill sensor strip.

2. Remove any bills from the cassette and store the bills in a secure location.

3. Remove the required number of sections from the low bill sensor strip as shown in the image below to set the warning to a lower number.

    If you need to set the warning strip to a higher value than to which it is currently set, you need to replace the strip.
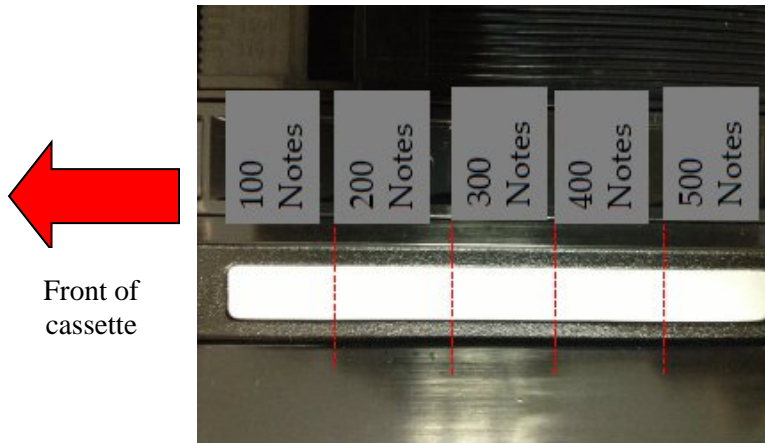
4. Place the bills you removed back into the cassette and then insert the cassette into the ATM.

D Block Diagrams

This section includes the latest diagrams at the beginning and older diagrams at the end.

D.1   5300XP Block Diagram (H81)
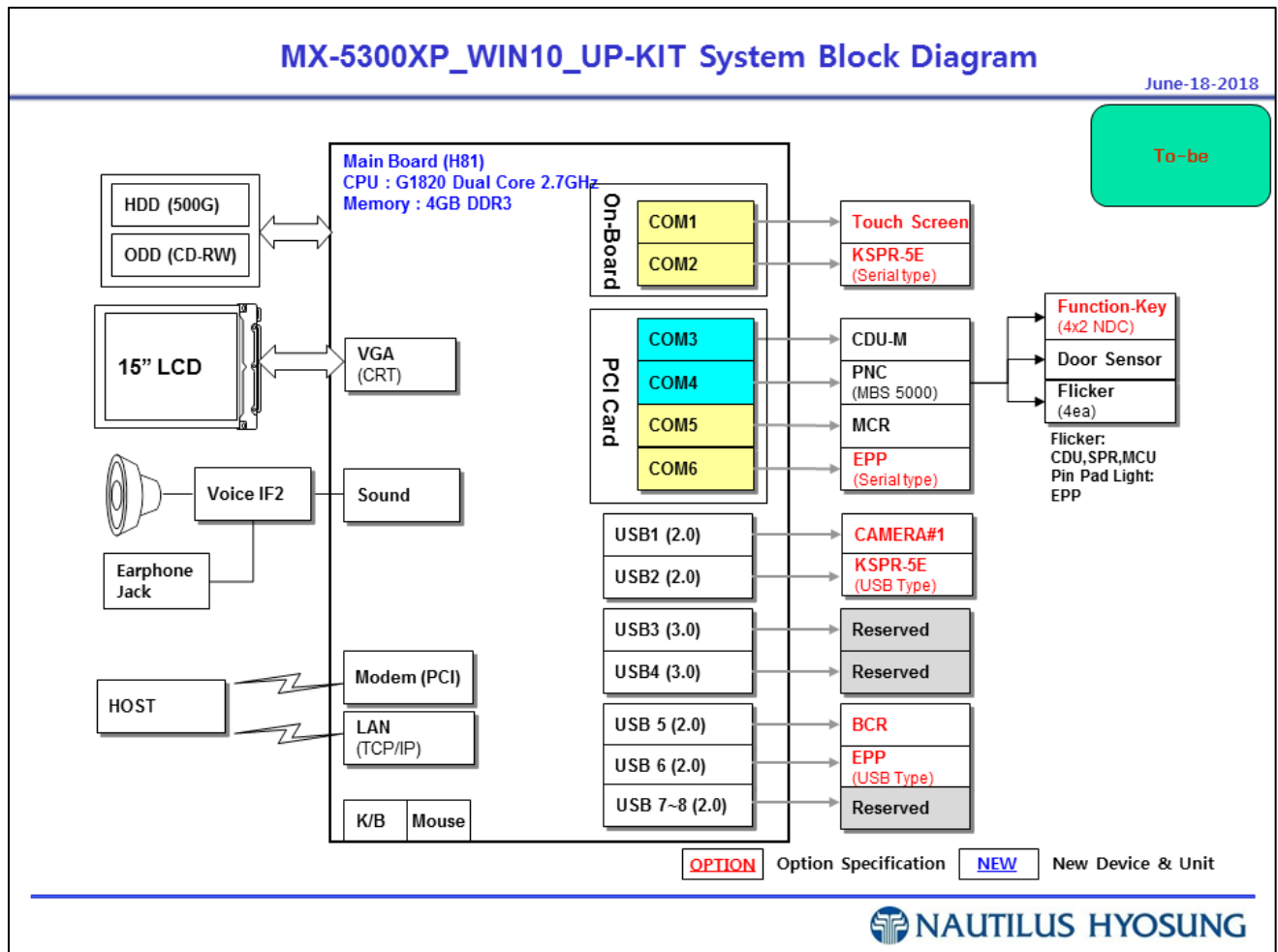
D.2   5600 Block Diagram (H81)
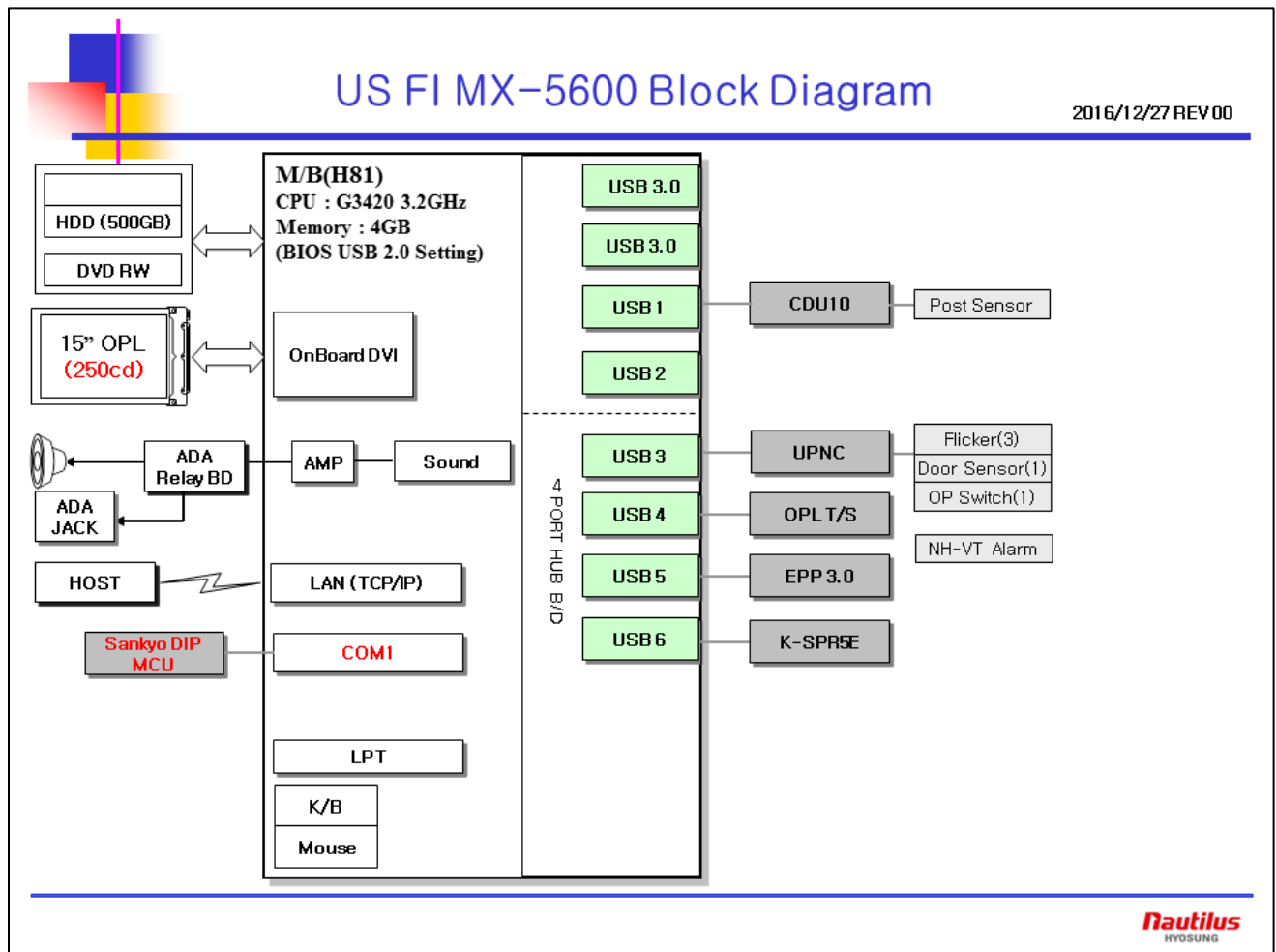
D.3   7600L Block Diagram (H81)

D.4   7600I Block Diagram (H81)

MONIMAX 7600I System(H81) Block Diagram (FI)   Rev.03 Sep-18-2017

D.5   7600T Block Diagram (H81)

MONIMAX 7600T System(H81) Block Diagram (FI)   Rev.01 Sep-18-2017
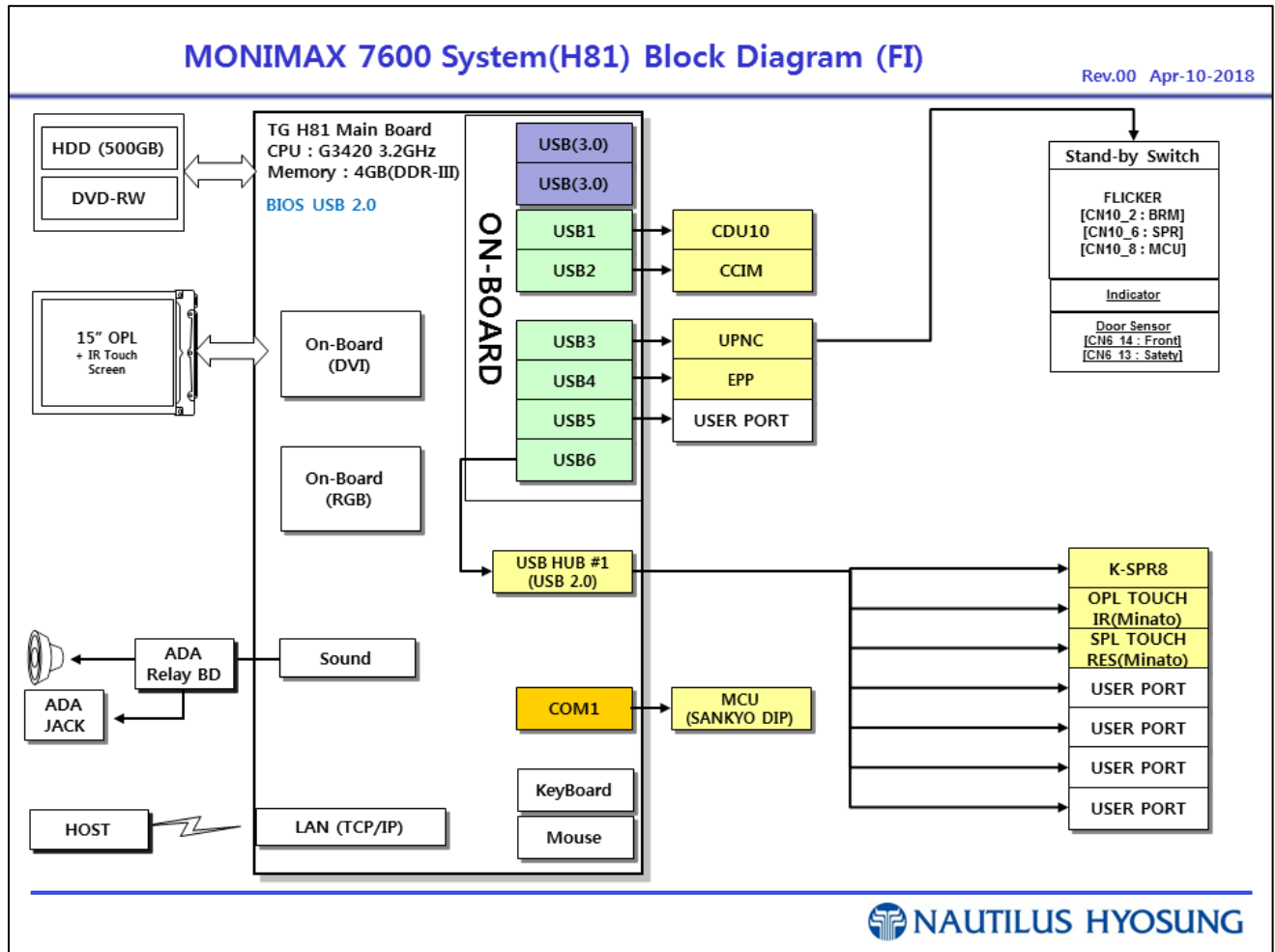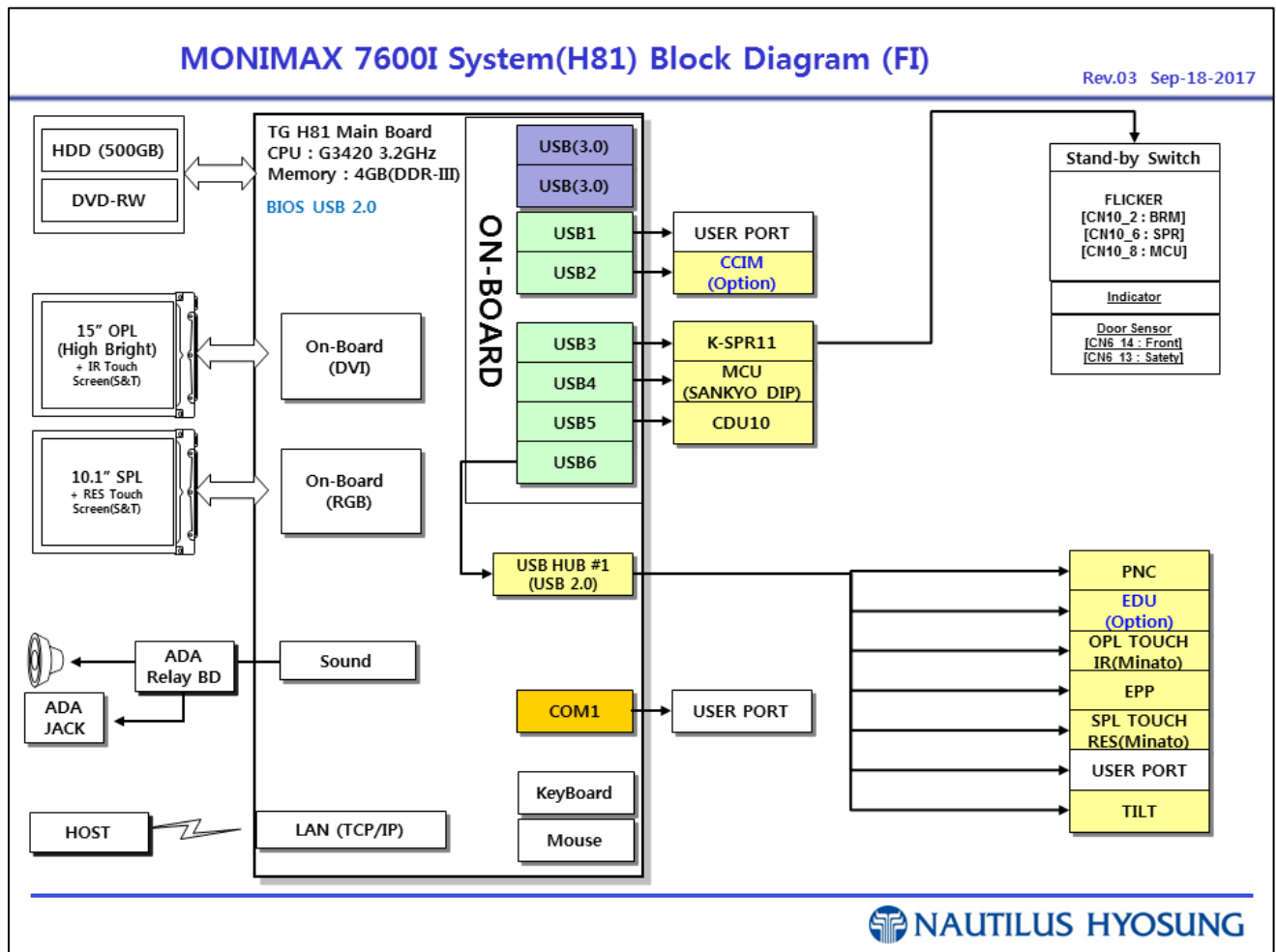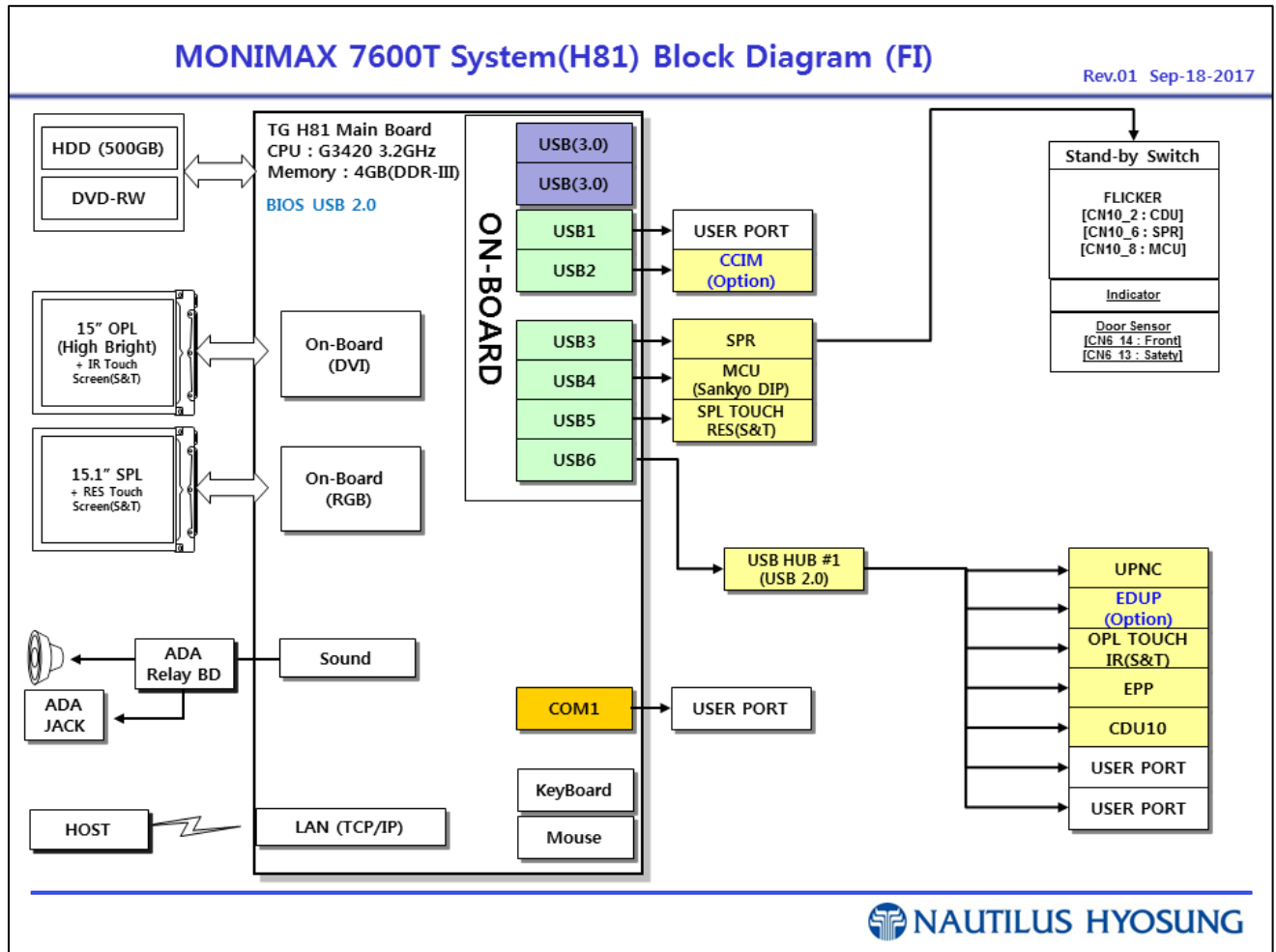
D.6   7600DA Block Diagram (H81)

MONIMAX 7600DA System(H81) Block Diagram (FI)
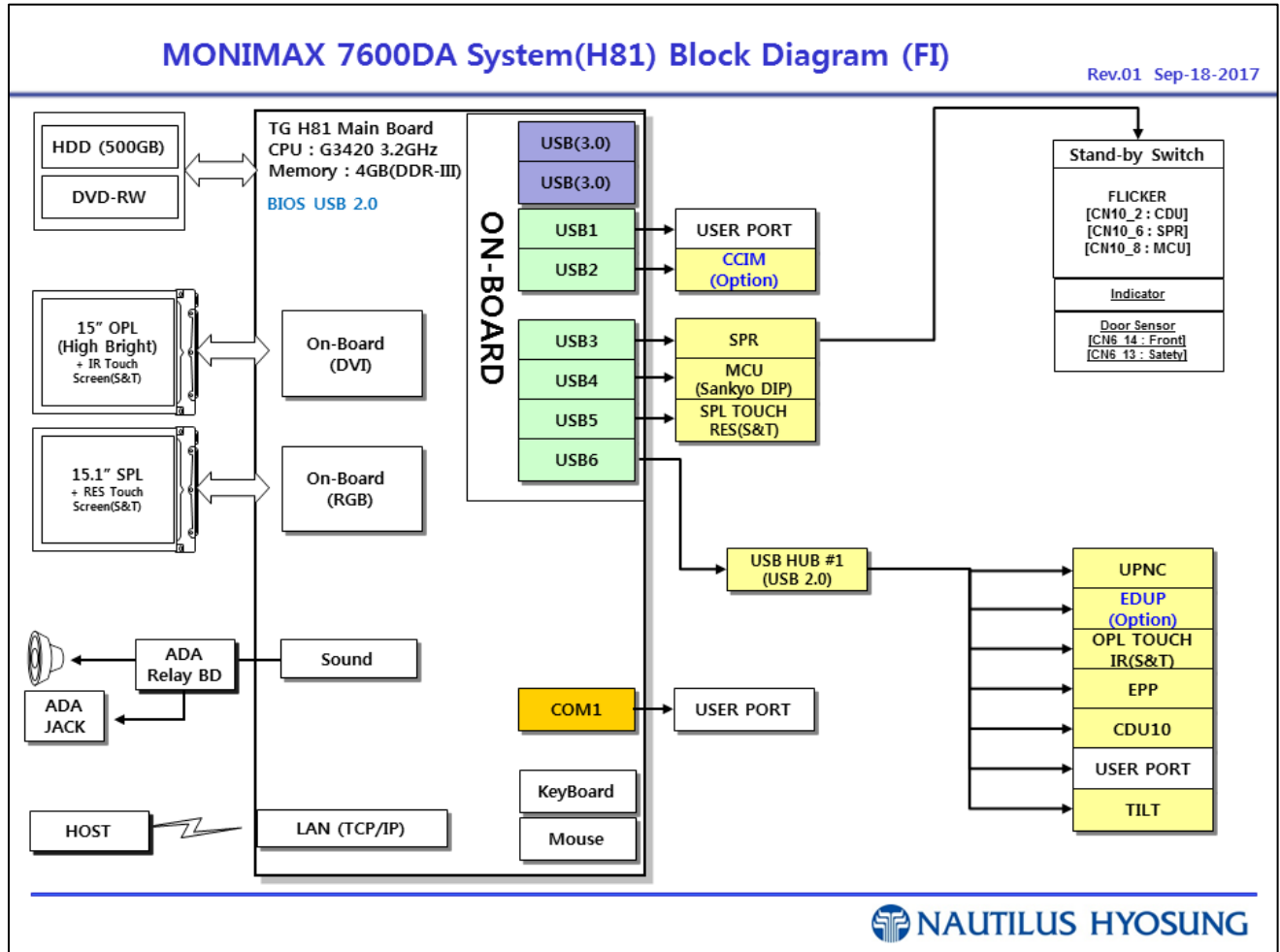
D.7   7800i Block Diagram (Q87)
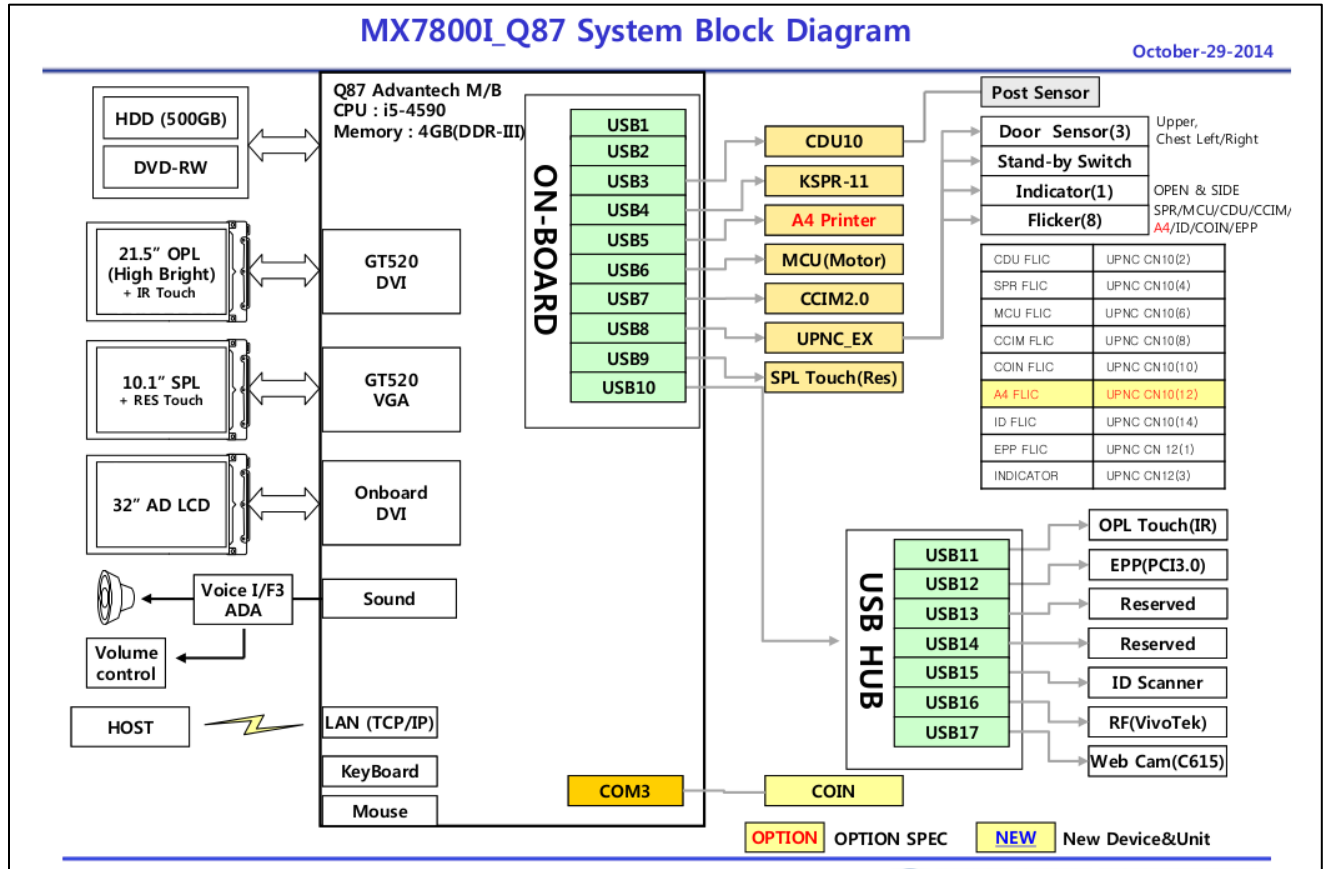
D.8   7800T Block Diagram (Q87)
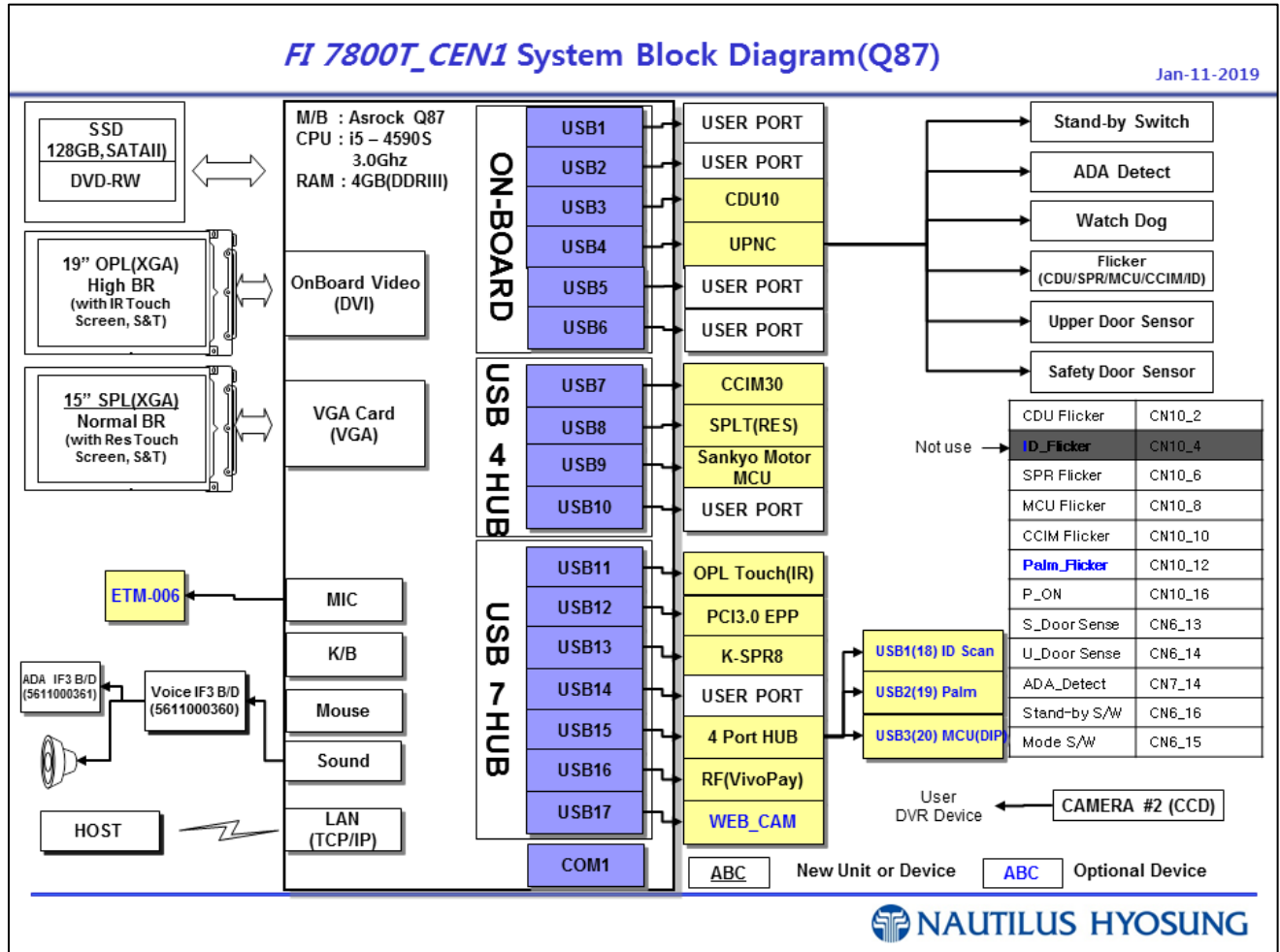
D.9　5300 Block Diagram (852/945)
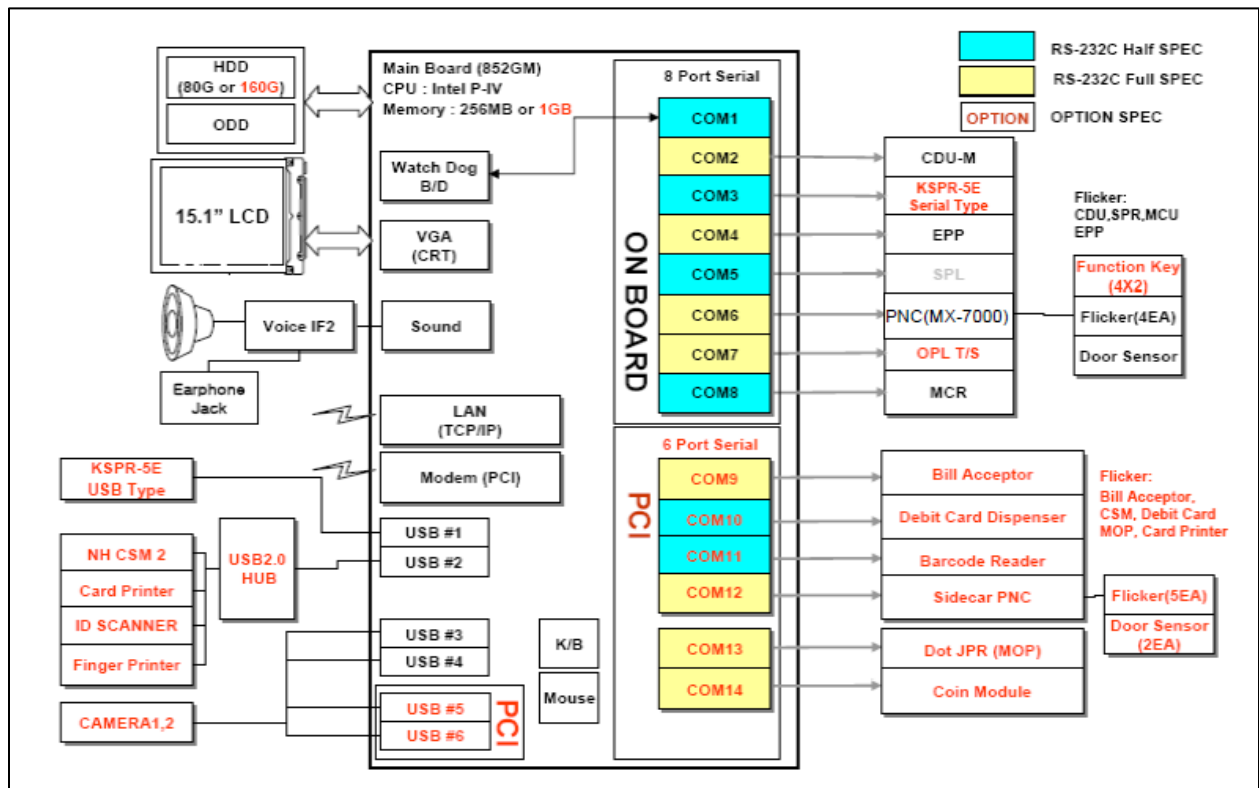
D.10 5600 Block Diagram (G41)
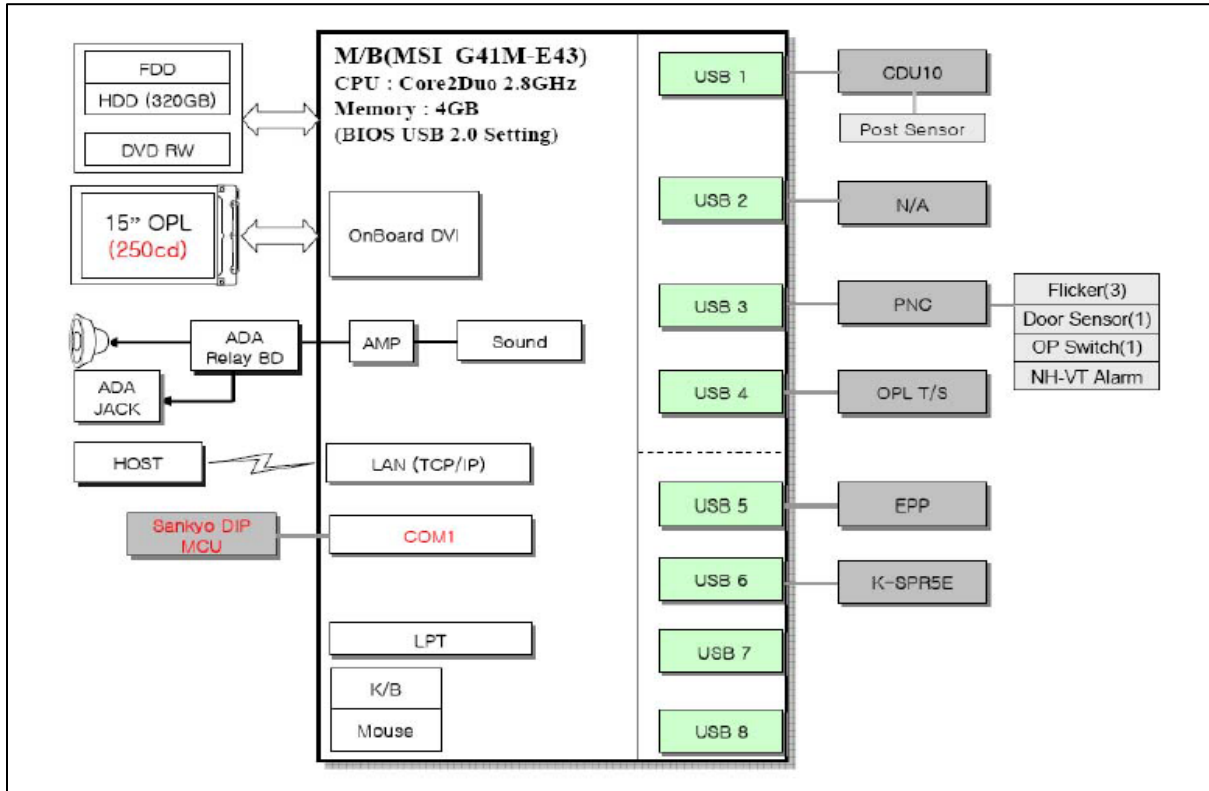
D.11 7600FFLBlock Diagram – Two Monitor Block Diagram (945)
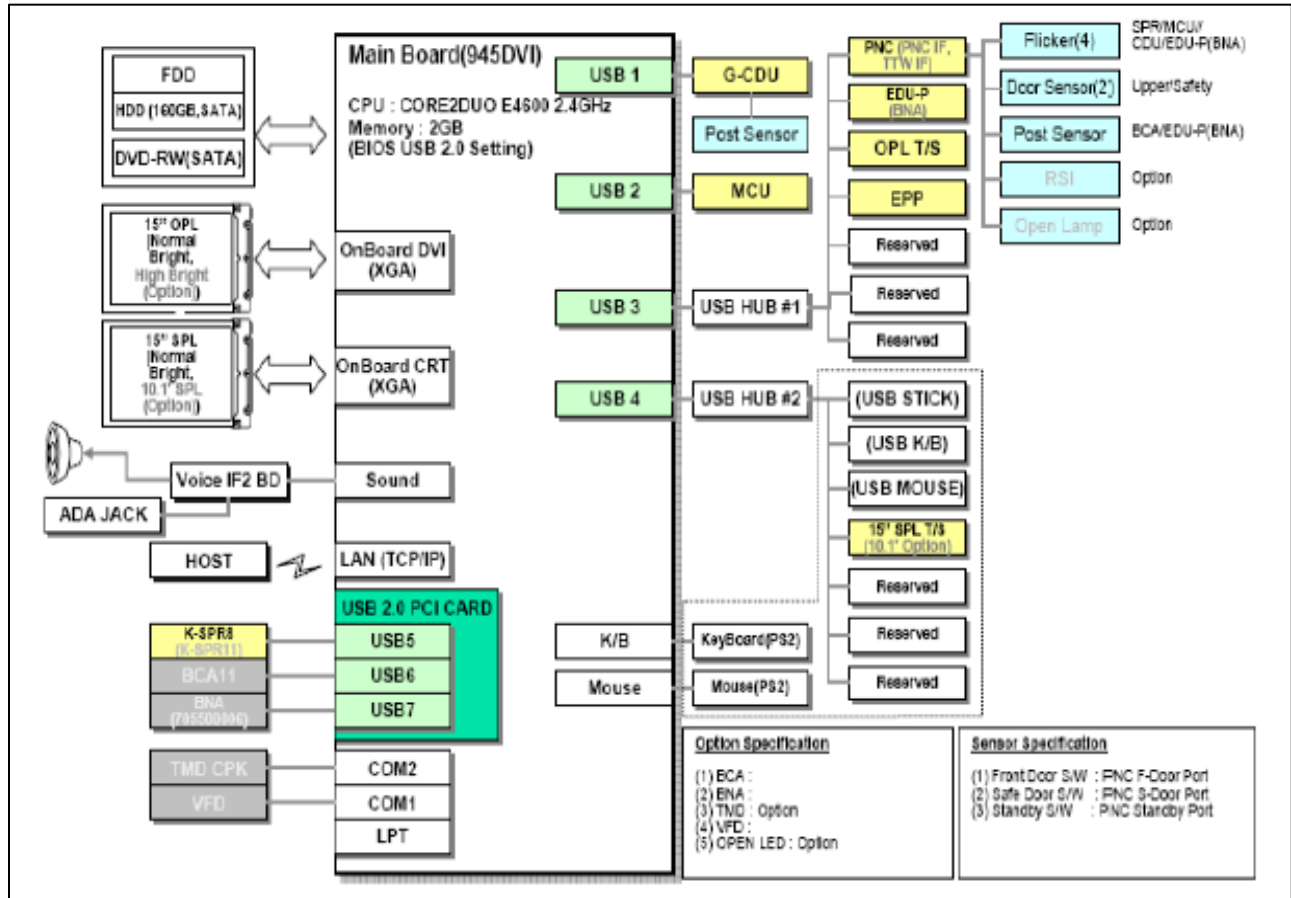
D.12 7600I Block Diagram (945)
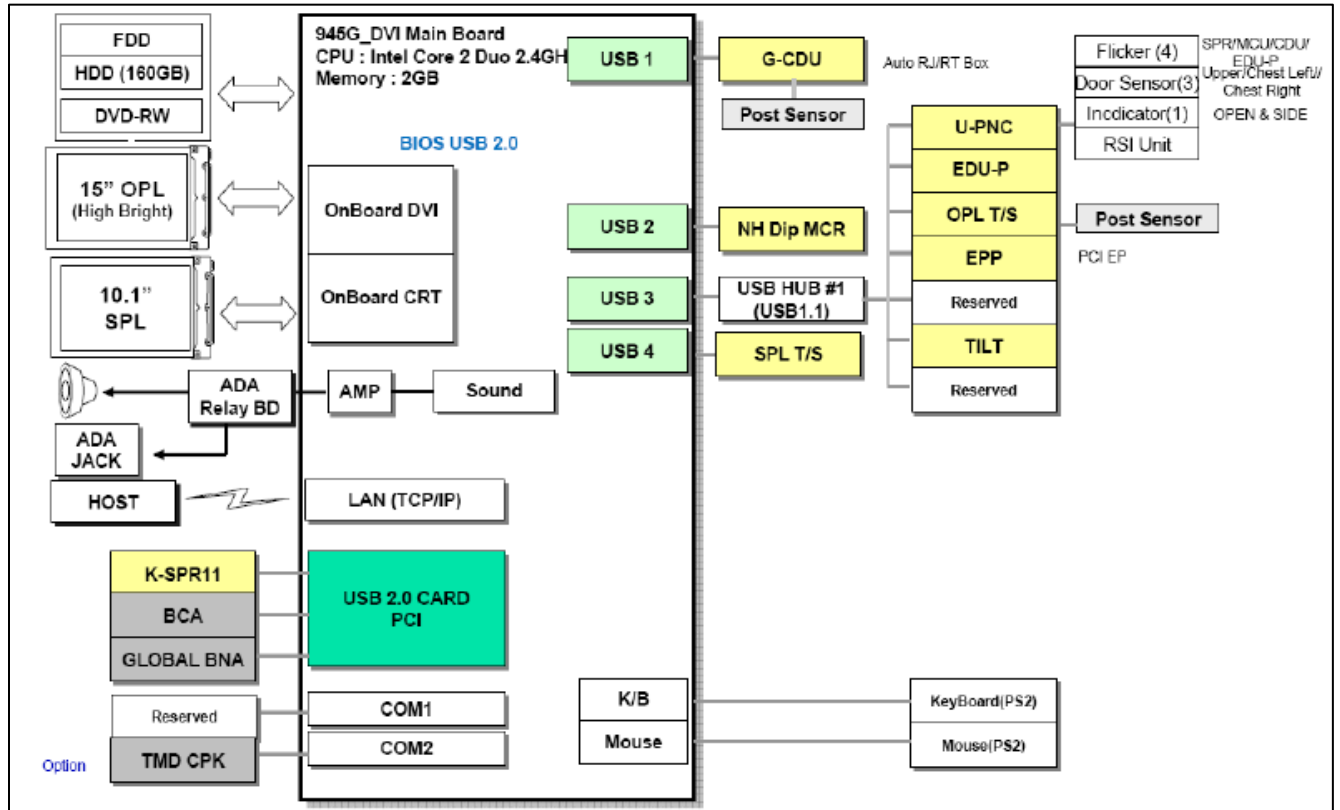
D.13 7600T Block Diagram (G41)
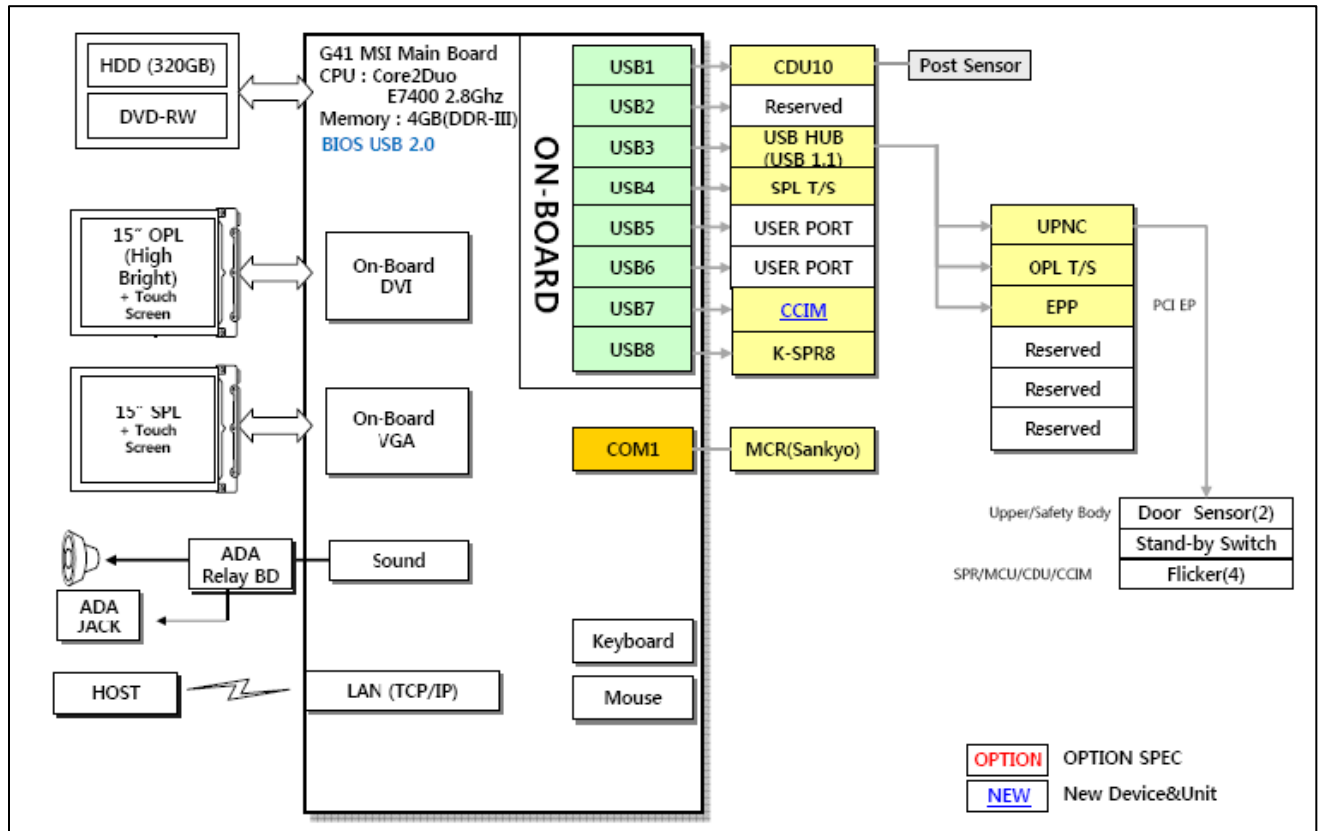
E Upgrade to a PCI 3.0 Compliant EPP Keypad

This section explains how to upgrade a PCI 1.0 EPP keypad in an ATM to a PCI 3.0 compliant EPP keypad. Both hardware and software instructions are included in this section.

E.1   Hardware Installation

There are a few differences of which you need to be aware between the old and new EPP keypads. These include:

- Two removal detection pins were added

- The inner sponge was changed for the addition of the removal detection pins

- A front bezel bracket was added

- The rear fixing bracket design was changed

- The battery size is now smaller so it is not compatible with the previous keypad

- The communications cable and power cable designs were changed, making some connectors incompatible (serial type only)

The actual process you should use to install the new EPP keypad into the ATM is the same as with the previous keypad.

E.1.1 Upgrade Kits Contents

There are two kits with a total of three pieces needed to upgrade the keypad. Contact the Hyosung help desk for kit information and kit ordering.

A single kit contains the keypad and a front bracket as shown below:

PCI 3.0 EPP   **Front Bracket**

A separate kit contains rear bracket which is the unique per ATM type:

Rear Fixing Bracket

E.1.2 High Level Kit Installation Process

Use the EPP upgrade kits and the following steps to install the PCI 3.0 EPP keypad into an ATM.

1. Remove the tape from the front bracket.
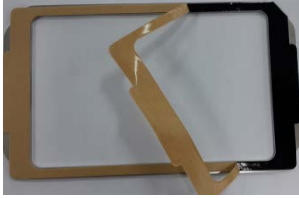
2. Attach the front bracket to the front bezel.

3. Affix the rear bracket to the rear of the keypad by screwing the four screws in place as shown below.

4. Verify that the DIP switches on the back of the keypad are set properly:

   - USB keypad must have – SW1=Off, SW2=On

   - Serial keypad must have – SW1=Off, SW2=Off

5. Install the new keypad into the ATM using the same procedure as you used for the PCI 1.0 EPP keypad.

6. Continue with the next section, *Software Installation and Configuration*.

E.2 Software Installation and Configuration

This section lists the software versions required to support the PCI 3.0 compliant keypad, explains how to obtain the software that contains the proper versions and then how to configure the software and keypad for key entry.

E.2.1 Required Software Versions

Specific versions of the service providers and VDM must be installed on the ATM to support PCI 3.0 EPPs. The minimum versions of the software that support the PCI 3.0 EPP keypad are:

- SP (USB) – V 04.21.28
  SP (Serial) – V 04.04.02

- EP – V 10.00.xx.xx

- VDM – V 01.02.32

To view the versions of the software on your ATM:

- Enter supervisor and select Supervisor>Configuration>Version Information to view the SP and EP versions. The EPP is listed as PIN in the version information displayed on the screen.

- Enter Diagnostics − the VDM version is displayed in the upper left-hand corner of the VDM main menu.

E.2.2 How to Obtain the Proper Software

To obtain the proper software to support the PCI 3.0 EPP keypad, you can:

- Upgrade to the latest version of MoniPlus2 (MoniPlus2 02.03.17 or higher) which has all of the required software to support the PCI 3.0 keypad.

- Install two update packages for customers who do not want to upgrade to the latest version of MoniPlus2: the Device Config V01.00.05 or later package and the PCI 3.0 Platform Support V01.00.00 or later package.

You must install the software at the same time you upgrade the EPP keypad because you use the new VDM screens to configure the EPP prior to entering or downloading the keys. Refer to earlier sections of this document if you need instructions on installing MoniPlus2 images and software updates.

E.2.3 Configure the PCI 3.0 EPP Keypad for Key Entry

After you install the new EPP keypad and supporting software, use these steps to configure the EPP keypad and key manager software so that encryption keys can be entered. At a high level, this process has you:

- Add new, more secure passwords to enter Key Manager

- Enter two User IDs and passwords that you use to change the state of the EPP from the Initialization state to the Installation state, which is the state required to accept keys.

The default passwords are included in these instructions. Generally, customers do not change these. However, if the defaults are not accepted when you enter them, contact your customer for the proper passwords.

Follow these instructions closely.

After you add the new passwords, you exit Key Manager and then reenter using the new passwords. Likewise, after you enter the new User IDs and passwords to set the state, you exit the set state function and then enter it again using the new User IDs and passwords.

Refer to the *PCI 3.0 EPP Installation Troubleshooting* section on page 77 for a possible solution if you have problems with this process.

1. Enter Diagnostics, and then select **7 Key Manager** from the Diagnostics menu. You are prompted to enter the Key Manager passwords to continue as shown in the sample screen below.
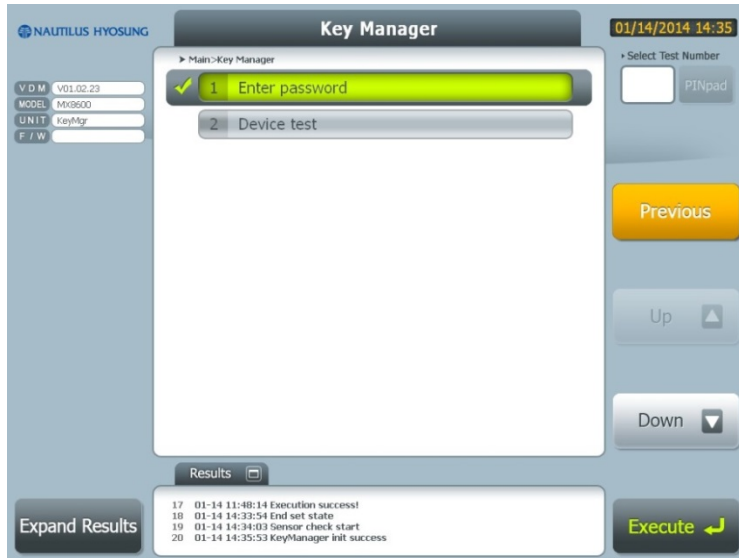
2. Press the **1 Enter password** button and then press **Execute**. The password screen displays as shown below prompting you to enter password #1.
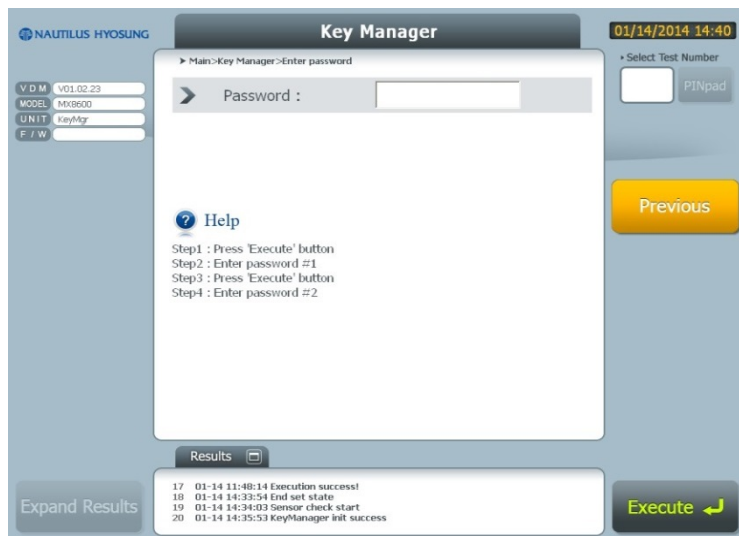
3. Follow the instructions on the screen to enter the password for each of the password prompts − #1 and #2. The default passwords are both 000000. If 000000 does not work, contact the customer for his passwords.

    After you enter the correct passwords, the Key Manager main menu displays as shown at the top of the next page. You need to change the passwords used to enter Key Manager.

4. Press **1 Change password** and then **Execute** to enter new passwords. The Change password menu displays as shown below.
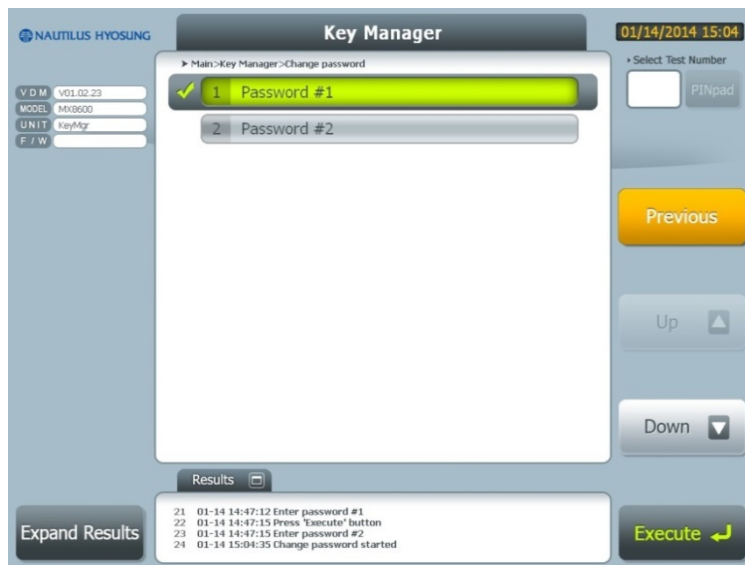
5. Change each password to either the defaults of 111111 and 222222 or the values specified by the customer. (PCI requires these two passwords to be different.) You will need to enter each new password two times to validate your entries.

6. Press **Previous** until you exit out of Key Manager.

7. Reenter Key Manager using your new passwords.

8. When the Key Manager main menu redisplays, select **7 Set pinpad state** and press **Execute**. The Enter ID / Password screen displays as shown at the top of the next page.

9. Press **Execute** and enter the default values of 000000 for User ID and password #1 and #2.

    After the default passwords are accepted, you are prompted to add new IDs and passwords as shown below.
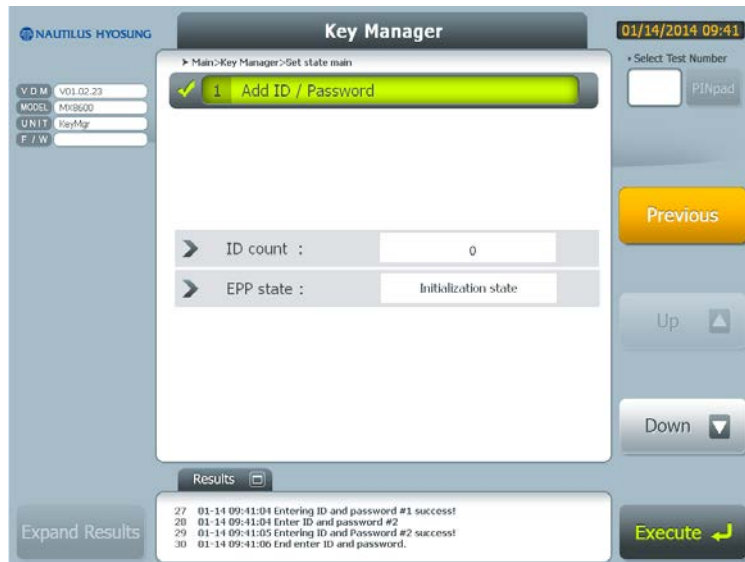
10. Press the **1 Add ID / Password** button and then **Execute.** Then follow the instructions on the screen to enter new User IDs and passwords #1 and #2. You can use the new default User IDs and passwords values of 111111/111111 and 222222/222222 or ones defined by the customer.

11. Press **Previous** twice to exit the Set State menu. Then press **4 Set pinpad state** to enter the menu again using the new User IDs and passwords you just entered.

   After your credentials are accepted, the Set state main menu displays as shown below.

12. Select **4 Set state** and press **Execute**. The EPP state will be listed as **Initialization state** as shown in the top portion of the screen sample below.

13. Press **Execute** to change the state from Initialization to **Installation**. You are prompted to validate your selection by pressing Yes or No on screen which is also shown below.

   Troubleshooting Note: If you cannot change the state of the keypad, you probably did not exit out to the Key Manager menu and the reenter the Set state menu using the new User IDs and passwords.
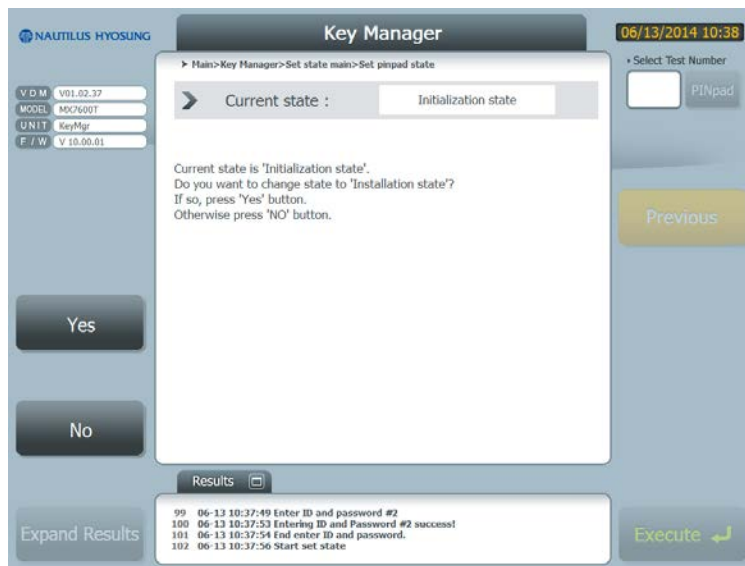
14. Press **Yes**. The state will be changed to Installation and a successful message displays on the screen as shown in the sample screen below.
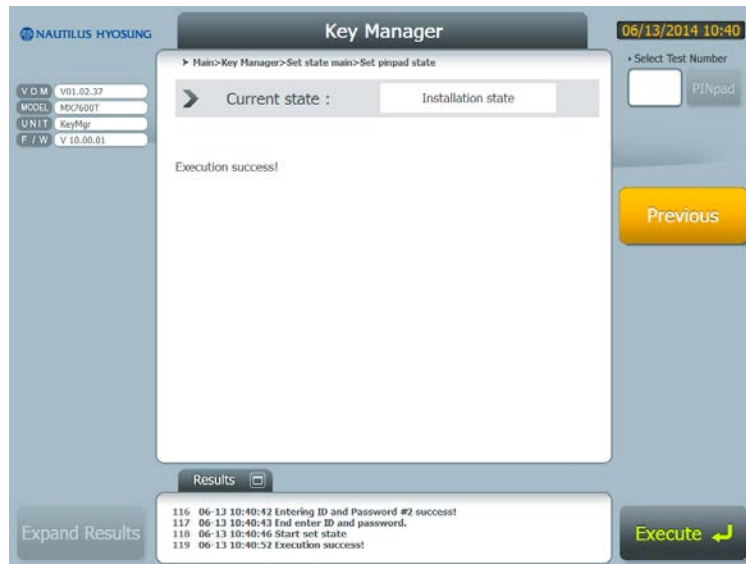
The keypad is now ready to accept encryption keys. Use the Enter Key function as you have in the past to enter the master key, or inform the host that the ATM is ready for remote key download.

E.2.4 How to Properly Remove a PCI 3.0 Keypad

Use the steps in this section to remove a PCI 3.0 keypad from an ATM without losing the stored data. If you do not follow these instructions, you will have to reenter the keys.

1. Enter Diagnostics, and then select **7 Key Manager** from the Diagnostics menu. You are prompted to enter the Key Manager passwords to continue as shown in the sample screen below.
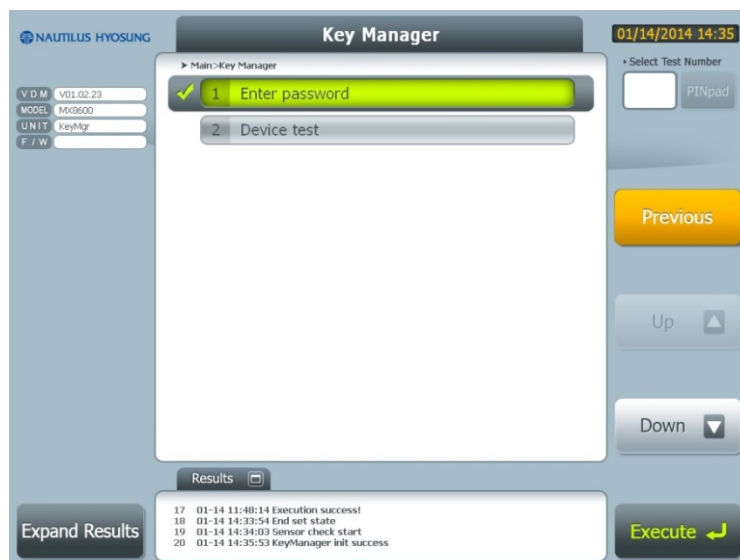
2. Press the **1 Enter password** button and then press **Execute**. The password screen displays as shown below prompting you to enter password #1.
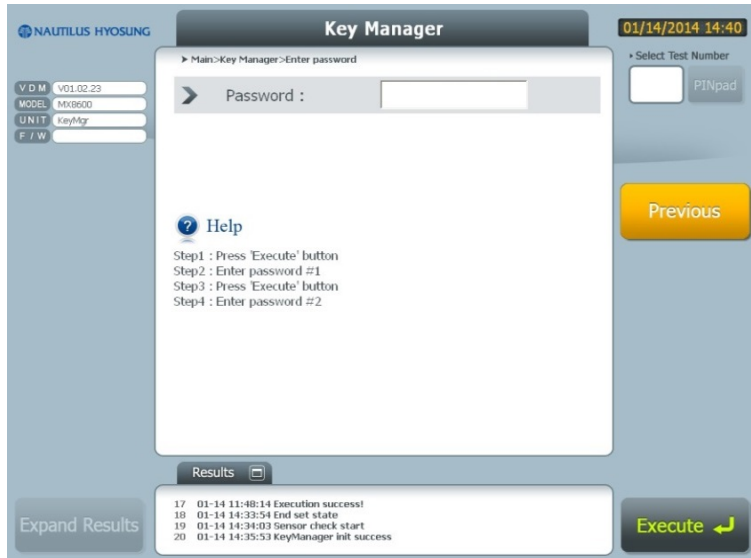
3. Enter both passwords. The default passwords are 111111 and 222222.

    After you enter the correct passwords, the Key Manager main menu will display as shown below.

4. Select **7 Set pinpad state** and press **Execute**. You are prompted to enter the change state User IDs and passwords as shown at the top of the next page.

5. Enter User IDs and passwords #1 and #2. The defaults are 111111/111111 and 222222/222222, but your customer may have unique User IDs and passwords. If the defaults are invalid, contact the customer to obtain the IDs and passwords.

    After you enter the correct credentials, the Set State menu will display as shown in the sample screen below. Note that the current state and number of User IDs are listed on the screen.

6. Select **4 Set state** and press **Execute**. The current state will be listed as **Installation state** as shown in the top portion of the screen sample at the top of the next page.

7. Press **Execute** to change the state. You are prompted to verify that you want change to the Authorized removal state with Yes/No buttons.
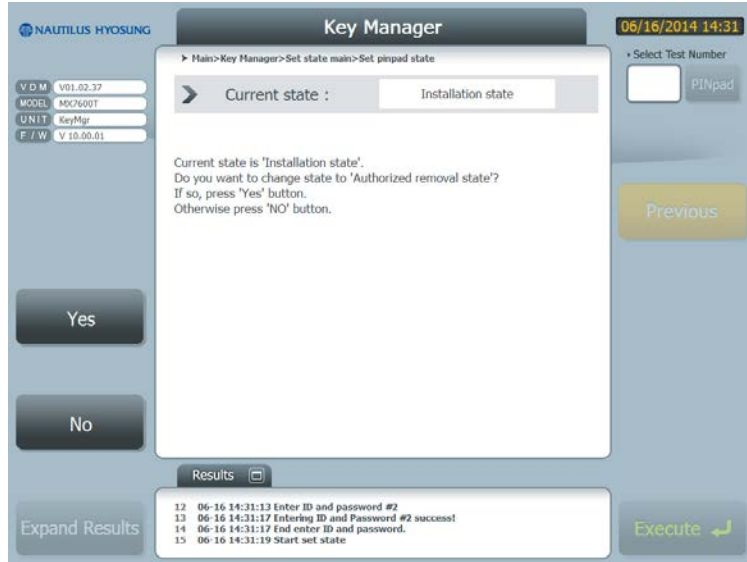
8. Press **Yes**. The state will be changed to the **Authorized removal state** and a successful message will display on the screen as shown in the sample screen below.
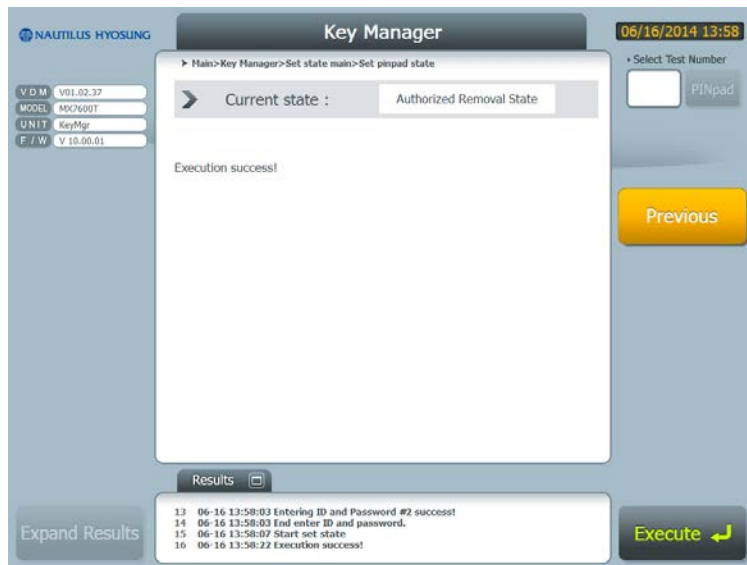
The keypad is now ready to be removed and can be installed in another ATM if required.

E.3   PCI 3.0 EPP Installation Troubleshooting

This section contains information about problems that can occur during or after the keypad is installed in the ATM.

E.3.1   Keypad State Is Listed as Unauthorized removal state
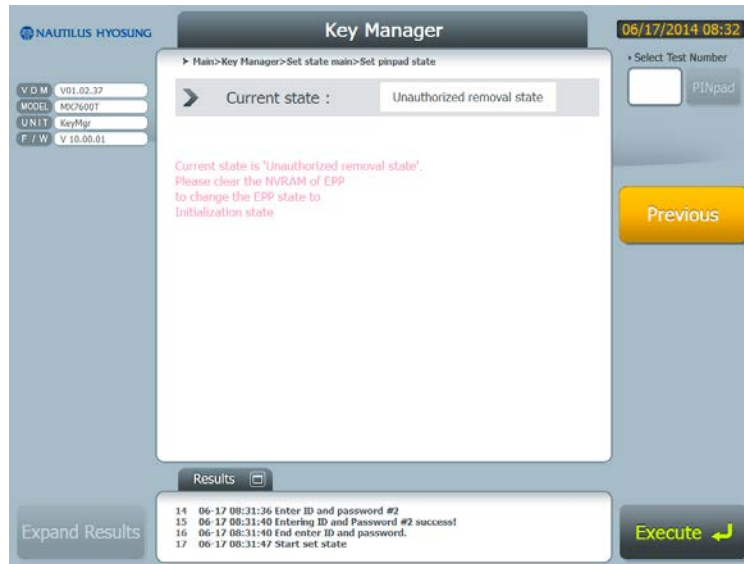
The keypad can get into this state if you, or someone else, removes the keypad without putting it in the Authorized removal state. This makes the keypad unusable until the detection pins are pushed back in, NVRAM is cleared and the keypad is reconfigured as explained below.

1. **Ensure that the keypad is already installed in the ATM.** The keypad MUST be in the ATM to successfully clear NVRAM.

2. Push the detection PINs on either side of the keypad back down.

3. Clear NVRAM as describe in the steps below.

    a. Move DIP SW1 on the underside of the keypad to the ON position (up).

    b. Wait 10 seconds.

    c. Move sw1 back to the OFF position (down).

    d. Power down and then power back up the ATM.

4. Reenter all the Key Manager passwords and add the change state User IDs and passwords as explained in the *Configure the PCI 3.0 EPP Keypad for Key Entry* on page 68. Remember the keypad has been reset and you need to enter the old default passwords first and then change them to the new passwords.

E.3.2 Cannot Change the State of the Keypad

If you receive an error message when you try to change the state to the Installation state, you probably did not exit the Set state menu and then reenter it using new User IDs and passwords. You cannot change the state of the keypad using the old default passwords.

E.3.3 "Unable to process" Message Displays after PIN Entry

This message can display for at least two reasons:

1. Master key has not been entered or downloaded

2. Keypad is in an Unauthorized state

To verify that keys have been loaded, run the **Check key status** function from the Key Manager main screen. The key types that have been loaded will display on the screen as shown in sample screen below.
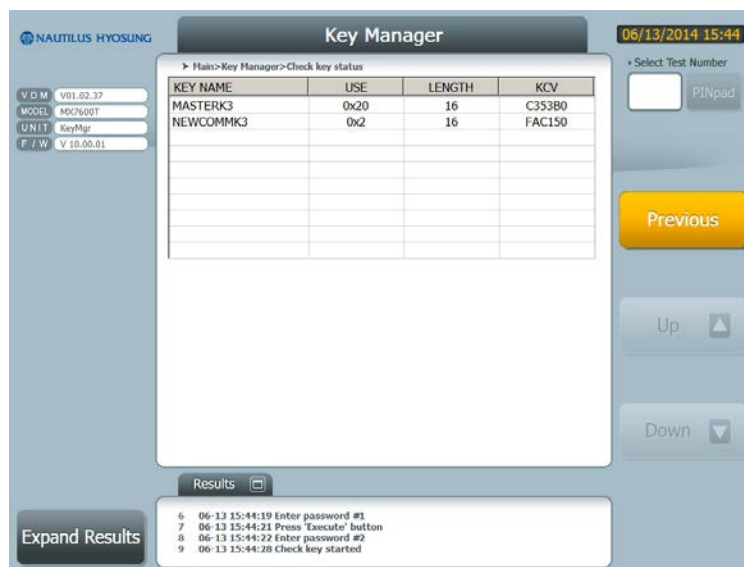
- If this screen is empty, enter the master key through the Enter Key function or notify the host that you are ready for a download. Then try to run a transaction again.

- If only the master key is loaded, the keypad may be in an Unauthorized state and unable to accept the comms key. Check the keypad state through the Set pinpad state in Key Manager. If it is in the Unauthorized state, follow the processes described in the *Keypad State Is Listed as Unauthorized removal state* section on page 77 to put the keypad in the proper operating state.

E.3.4 How to Clear NVRM

Use the following procedure to reset NVRAM:

1. **Ensure that the keypad is already installed in the ATM.** The keypad MUST be in the ATM to successfully clear NVRAM.

2. Move DIP SW1 on the underside of the keypad to the ON position (up).

3. Wait 10 seconds.

4. Move sw1 back to the OFF position (down).

5. Power down and then power back up the ATM.

E.3.5 Not Sensitive State Error/Is Not Protection Mode Error

These messages display if a Key Manager screen times out. Reenter Key Manager and run your function again.

E.3.6 Cannot Read Version/Check EPP Device an Connection/Sensor Check Start

This message displays when you reset NVRAM but do not reboot the ATM. You must always reboot after you reset NVRAM.

F MoniACT Device List

This section contains a list of the devices and services that can display on the MoniACT screen. 'x' indicates there are multiple models.

BCAx – Bulk Check Acceptor (Check only)

BCR – Bar Code Reader

BNA – Bulk Note Acceptor (Cash only)

BRMx – Bill Recycle Module

CAM - Camera

CCIMx – Check and Cash Input Module

CHDU – Coin Dispenser

COIN - Coin Recycler/Dispenser (supports both)

CONMC – Coin Recycler

Common Utils SP – general configuration tool (required)

CSM – Check Scanner Module

EDU – Envelope Deposit Unit

EMVDip – EMV-capable Dip-style card reader

EPPx – Encrypted PIN Pad

FGR – Finger Print Scanner

GCDU – Global Cash Dispensing Unit

HCDU - High-capacity Cash Dispensing Unit

IDC – Card Reader (Identification Card Device)

MCUx – Motorized Card Reader Unit

Nextware – ActiveXFS software

NHDip – Dip-style Card Reader – non-EMV capable

PNCx – Panel Control Board and Sensors (includes SIU)

RFM – RFID reader

SCNx – ID Scanner

SPL – Newer Style Operator Panel

SPRx – Receipt Printer (Slip Printer Receipt)

TouchSCR – Touch Screen

TTU – Old Style Operator Panel

VDM – Vendor Dependent Mode (Diagnostics)

VFD – Vacuum Florescent Display

WAT – Watch dog monitor

G Build and Install the MoniPlus2 02.03.xx Software for an MX5200 ATM

The MX5200 image software is distributed through two downloadable links from Hyosung. Because the MX5200 has no CD/DVD drive, you need to create a bootable USB flash drive and copy all files Win7 image files from the links onto the bootable USB flash drive to load the platform software onto the MX5200. You need a separate USB flash drive for the MoniPlus2 application files. For this loading process you need:

- Windows PC

- 1− 6GB minimum flash drive for the Win7 image and platform software

- 1−1GB minimum flash drive for the MoniPlus2 application software

- Hyosung links that contain all of the MoniPlus2 02.03.xx MX5200 software files

During this process you format the USB flash drive on your PC for the Win7 image and platform software. Therefore, follow these instructions carefully or you could render your PC unusable.

Note: The image software WILL NOT load if it is not transferred onto a bootable USB flash drive.

G.1 Build a Bootable USB Flash Drive

1. Insert your 6GB minimum flash drive into an open USB port on your PC.
2. Select the Start button and type **diskpart** to open the disk partition command line utility. A separate window will display with a DISKPART> prompt.
3. Type **list disk** to verify which disk # is your USB flash drive. You will see a list of the disks on your PC by size similar to the sample below.

NOTE: DO NOT MAKE A MISTAKE IN THE NEXT STEP AND ENTER THE WRONG DISK #. YOU WILL WIPE OUT YOUR HARD DRIVE IF YOU DO.

4. Using the disk # of the flash drive (disk **#** of the size closest to the size of your USB flash drive), enter the following commands at the prompt to format your USB flash drive with NTBS. The system will respond to each command with an appropriate acknowledgement which is shown after each command below. Disk X is used as the USB flash drive disk # in the sample commands. Substitute your specific disk #, typically 1, for X when you enter the instructions on your PC below.

> **select disk X** – Disk X is now the selected disk
>
> **clean** – DiskPart succeeded in cleaning the disk
>
> **create partition primary** - DiskPart succeeded in creating the specified partition
>
> **select partition 1** – Partition 1 is now the selected partition.
>
> **active** – DiskPart marked the current partition as active.
>
> **format quick fs=ntfs** – DiskPart successfully formatted the volume.
>
> **exit** – (the DOS window closes)

Your USB flash drive is now bootable and formatted with NTFS.

G.2   Build the Win7 Image and Platform Software Load Flash Drive

5. Click on the 5200 Win7 and platform software link provided by Hyosung and download the .zip file to an appropriate location on your PC.

6. After the download completes, copy all of the files from the 5200 Win7 and Platform .zip to your bootable USB flash drive.

G.3   Build the MoniPlus2 02.03.xx Software Load Flash Drive

7. Click on the MoniPlus2 02.03.xx software link provided by Hyosung and download the .zip file to an appropriate location on your PC.

8. After the download completes, copy all of the files from the Global MP2 02.03.xx .zip file to the second USB flash drive.

Continue with the next section to set the MX 5200 BIOS to load from USB and then load the software.

G.4   Set the MX5200 BIOS and Load the Software

9. Connect a keyboard to the ATM.

10. Insert your Win7 image and platform USB flash drive into an open USB port on the processor.

11. Power up the ATM and press the Delete key when the IPC Master Screen displays to access the BIOS Setup Utility. Note that the power button is on the side of the battery.

Note: If the ATM does not recognize your keyboard or USB flash drive, move them to other ports on the processor.

12. Set the correct date and time on the Main screen.

13. Arrow over to the Boot menu item. The Boot screen displays as shown below.

14. Press ENTER to select the Boot Option #1 setting and select your USB flash drive from the popup box.

```
            Aptio Setup Utility  – Copyright © 2013  American  Megatrends, Inc.
  Main    Advanced    H/W Monitor    Security    Boot    Exit
  ─────────────────────────────────────────────────────────┬──────────────────────────
  Boot Option Priorities                                    │ Set the system boot order
  Boot Option #1              [AHCI P0: ST3500312C…]        │
  Boot Option #2              [USB: SanDisk]                │
  Boot Option #3              [UEF1: SanDisk]               │
                                                            │
  Hard Drive BBS Priorities                                 │
  USB Device BBS Priorities                                 │
                                                            │
  Fast Boot                   [Disabled]                    │ →←  :  Select Screen
                                                            │ ↑↓    :  Select Item
  Boot from Onboard LAN       [Disabled]                    │ ENTER:  Select
                                                            │ +/- :  Change Opt
  Setup from Prompt Timeout   1                             │ F1 :  General Help
  Bootup Num-Lock             [On]                          │ F2 :  Previous Value
  Boot Beep                   [Disabled]                    │ F9 :  Optimized  Defaults
  Full Screen Logo            [Enabled]                     │ F10 :  Save & Exit
                                                            │ ESC :  Exit
  CSM (Compatibility  Support Module                        │
                                                            │
  ─────────────────────────────────────────────────────────┴──────────────────────────
           Version 2.16.1242  Copyright © 2013 American  Megatrends, Inc.
```

15. Press F10 and then select Yes to save your changes. The MX5200 will reboot and the image will start loading automatically. It takes approximately 12 minutes to restore the Windows platform image.

    When the Windows platform finishes loading, the ATM will shut down and you will see a blank screen. This is not an error; this is how the installation ends.

16. Remove the USB flash drive, power the ATM off and then back on.

17. While Windows is loading, insert the USB flash drive with MoniPlus2 02.03.xx into the USB port.

18. Using Windows Explorer, navigate to the USB flash drive and double-click on the SWUpdate.exe program to load the application.

    The 'package loading' screen displays while files are copied to the hard drive and then the ATM reboots.

19. Remove the USB flash drive while the ATM reboots. The software will continue to load and the ATM may reboot several times. Finally, the MoniPlus2 supervisor screen will display.

20. Load any network or customer-specific software required. This is typically loaded as a software update through supervisor, but may be a simply file copy as with the AudioGuidanceData.xml voice guidance file when it is loaded locally instead of downloaded.

21. Load any third-party software required. Refer to the information provided by the vendor for installation instructions.

22. Continue with *Configure the Software* section on page 13.

H Loading the Software Image

This section explains how to load the XFS Platform and Device Config software on a MoniPlus2 02.03.xx terminal instead of using the single image Basic Media, MoniACT and Hyosung Security software.

H.1　Assemble the Software Installation Media

The software media you need includes multiple CDs/DVDs as follows:

- Model-specific Windows 7 OS and XFS Platform – 2 DVDs

- Device Configuration Utility – 1 CD

Sample only labels are shown below. Refer to the software release notes to verify that you have all of the media you need before starting.

<table>
<tr><td>

HYOSUNG INC.

3/19/2013　　　　　　1 OF 2

MoniMax 7600T

XFS Platform
V 01.00.00 (Sample)

</td><td>

HYOSUNG INC.

3/19/2013　　　　　　2 OF 2

MoniMax 7600T

XFS Platform
V 01.00.00 (Sample)

</td></tr>
<tr><td>

HYOSUNG INC.

1/16/2015　　　　　　1 OF 1

Device Configuration Utility
V 01.00.07 (Sample)

</td><td></td></tr>
</table>
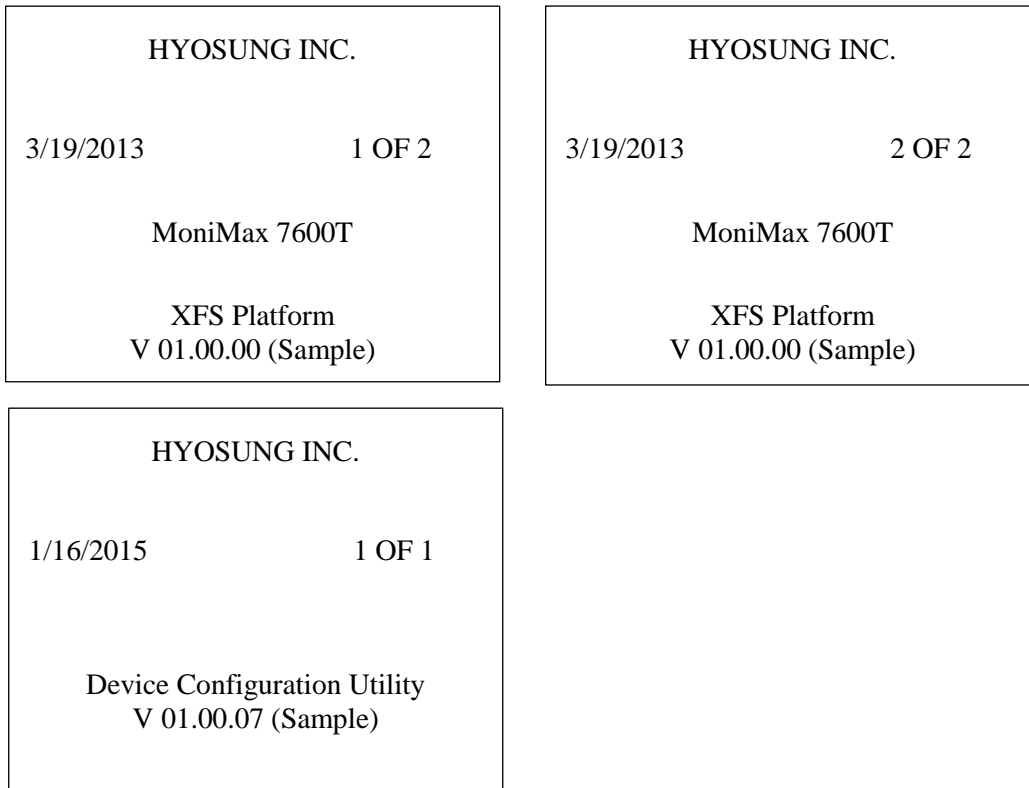
H.2　Load the Windows 7 and XFS Platform Image Software

Use the following procedure to load the Windows 7 and XFS Platform software image. Refer to the *Troubleshooting* section on page 42 if you have problems while loading the image.

1. Attach a keyboard and optional mouse to the ATM if you have not done so already.

2. If your CE has a Watch Dog switch as shown in the picture at the top of the next page, you must disable the Watch Dog by moving the switch to the 0 position when the software starts to load. **If you do not disable this switch, the ATM will reboot 10 minutes after you start loading the software.**

If your CE does not have a Watch Dog switch, skip this step.

3. Insert the first XFS Platform CD (1 of 2) into CD/DVD drive and power the ATM off and then back on to start the image installation process. A progress bar displays as Windows 7 begins to load.

    - If the DVD does not begin to load even after you reboot, you need to use the Boot Menu. Refer to the *CD/DVD Load Will Not Start* section on page 42.

4. The Ghost screen displays next as the platform image loads (sample shown below).
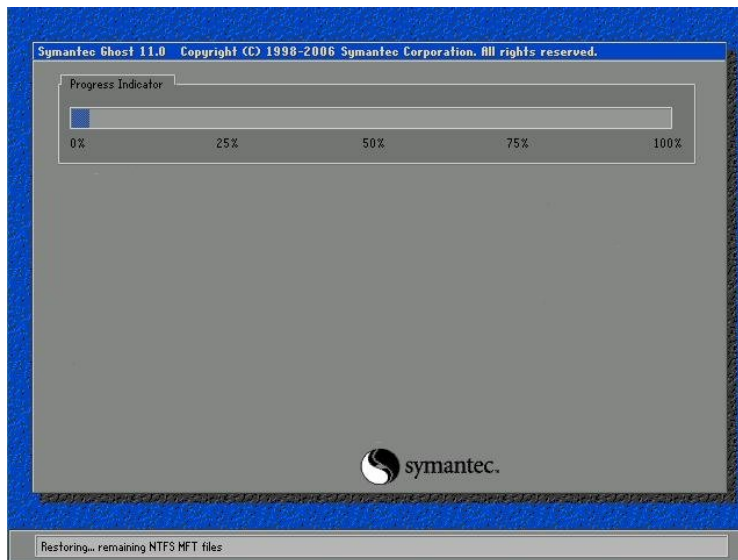
5. When prompted, remove the first CD and insert the second CD. Then press Enter on the keyboard to continue. When the platform load finishes, the ATM will shut down and **you will see a blank screen**. **This is not an error; this is how the installation ends.**

6. Remove the CD, power the ATM down and then back up to continue. Allow the ATM to reboot again if it requests it when it comes back up.

H.3   Load the Device Configuration Utility CD

7. Insert the Device Configuration Utility CD into the drive.

8. Using Windows Explorer, navigate to the CD and double-click on the SWUpdate.exe program to start the utility.

Troubleshooting Note: If you get a "Windows is not genuine" message and the device configuration utility does not start, you do not have the latest BIOS upgrade. Contact Hyosung tech support for older BIOS upgrade information.

9. Enter the following ATM-specific configuration information when prompted:

    - ATM model number

    - Card reader type: DIP, EMV DIP or EMV motorized

    - Deposit device: No Depository, EDU for envelope, BNA/BCA or CCIM (single insert slot)

    The utility configures the software for these devices, reboots multiple times and then returns to the Windows desktop. Remove the CD while the ATM reboots.

I Using MoniView to Distribute a MoniPlus2 Software Update

This section contains step-by-step instructions for using MoniView to download a software update file to a MoniPlus2 ATM. You can also use this section as a guideline for using your own software distribution program for this purpose, changing the individual steps as necessary.

I.1   Prepare the Files to Be Downloaded

Software updates provided by Hyosung are typically delivered to you through a link to a downloadable .ZIP file. You need to download the file, drill down to the update files within it and build a new .ZIP with all of the files in the root of the new .ZIP. Then when you are ready to distribute the update, you need to save the new .ZIP file to a location on the MoniView PC that is easily accessible.

1. Click on the link provided by Hyosung and download the update .ZIP file to an appropriate location on your PC. In the sample screen below, the Win7HotFixUpdate-01.00.09-20171127.zip file was downloaded to a folder on the PC called *Hot Fix Files*.
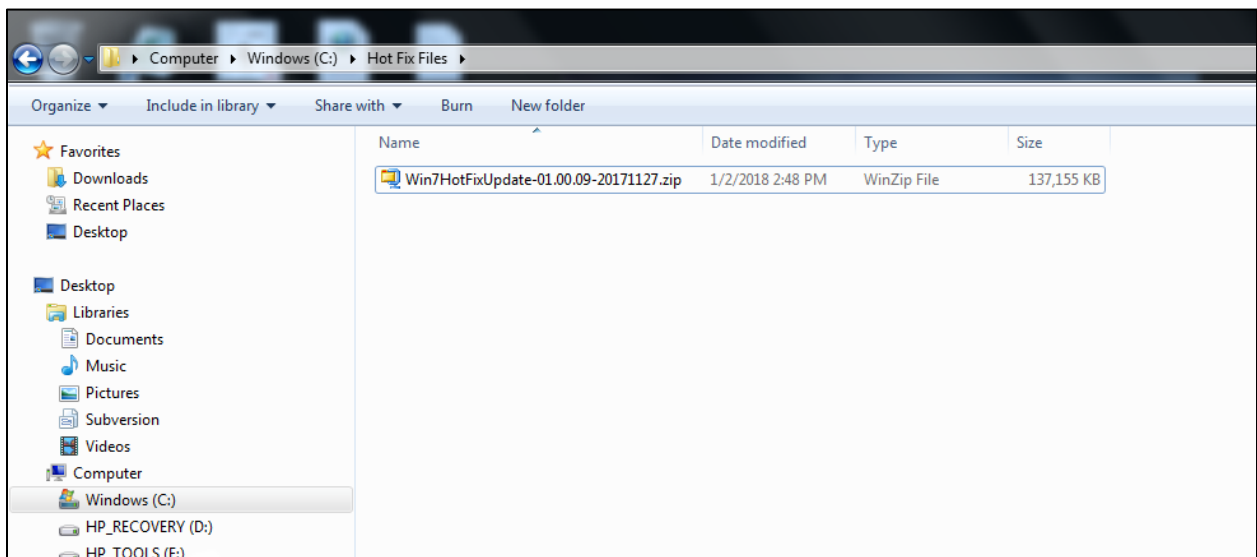
2. After the download completes, open the .ZIP file. You will see a folder that contains the update files. In the screen sample below, you can see the .ZIP file and folder that opens after you double-click on the .ZIP file. Both have the same filename - Win7HotFixUpdate-01.00.09-20171127.
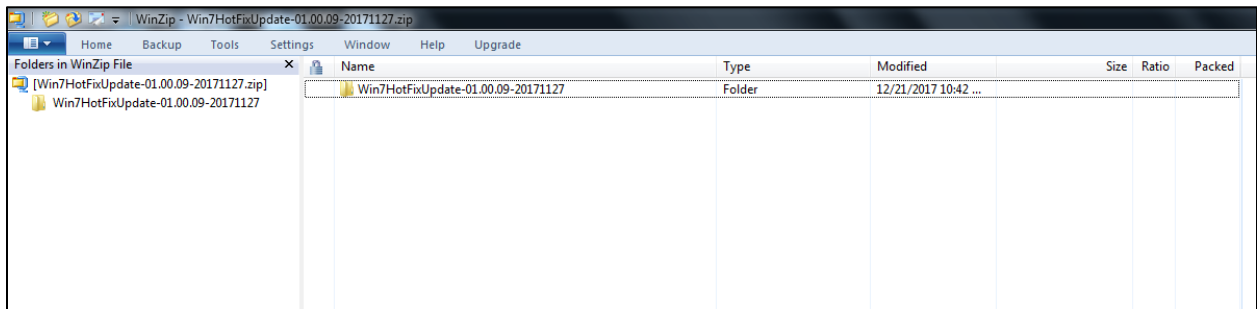
3. Double-click on the folder in the main screen area and you will see another folder with the same name and a release notes .PDF document.
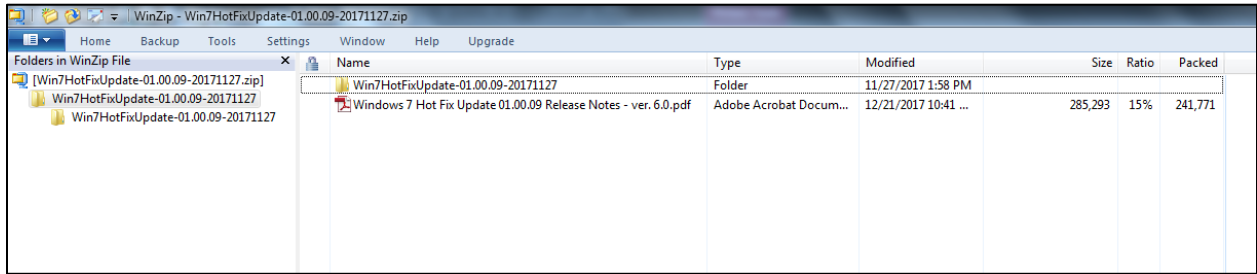
4. Double-click on the folder in the main screen again and you will see 3 files and another folder. These are the files that you need to put into the root of a new .ZIP file. Do not open the last folder, which is called HotFix in the sample screen below. That folder contains the actual update files while the rest of the files are control files.

5. Create a new .ZIP file using whatever tool you have with these files as the content.
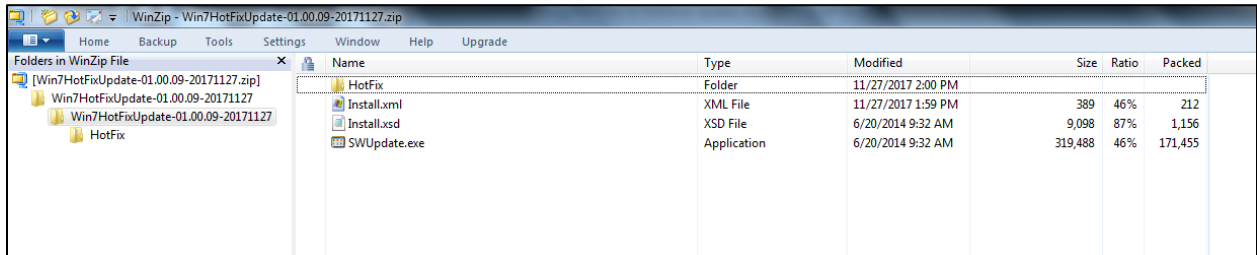
I.2   Create and Download the Update Package

Use the following steps to create an update package and then download it to an ATM. Always use the
guidelines established at your site when creating and sending downloads to your ATMs.

1.   Select **Download > Create/Modify Master Update/Patch Files** from the MoniView desktop as
      shown below.
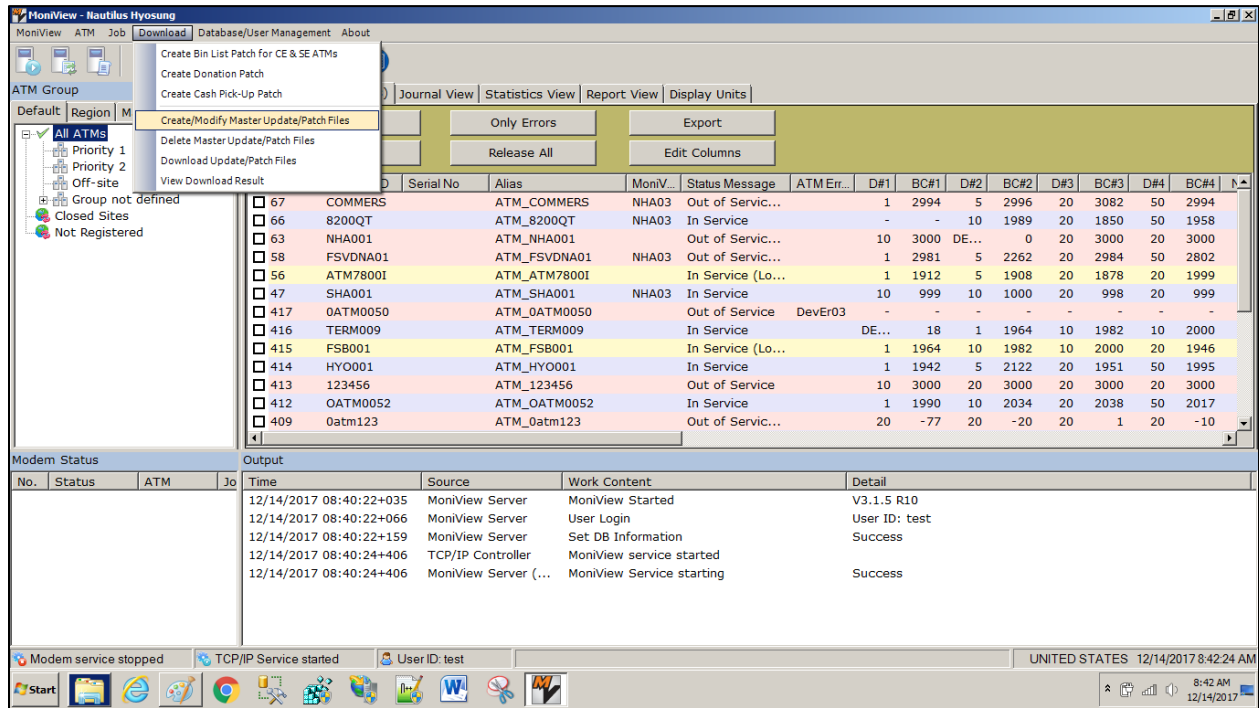
2. When the popup window displays, populate it as follows:

- Select **86 – ALL – FI ATMS** from the Application Type dropdown.

- Enter a name for the update in the New Update field. *Q3 Hot Fixes* has been entered below.

- Select the **…** button, navigate to the location of your update .ZIP file and Open it. See the three screen samples below which show this process.
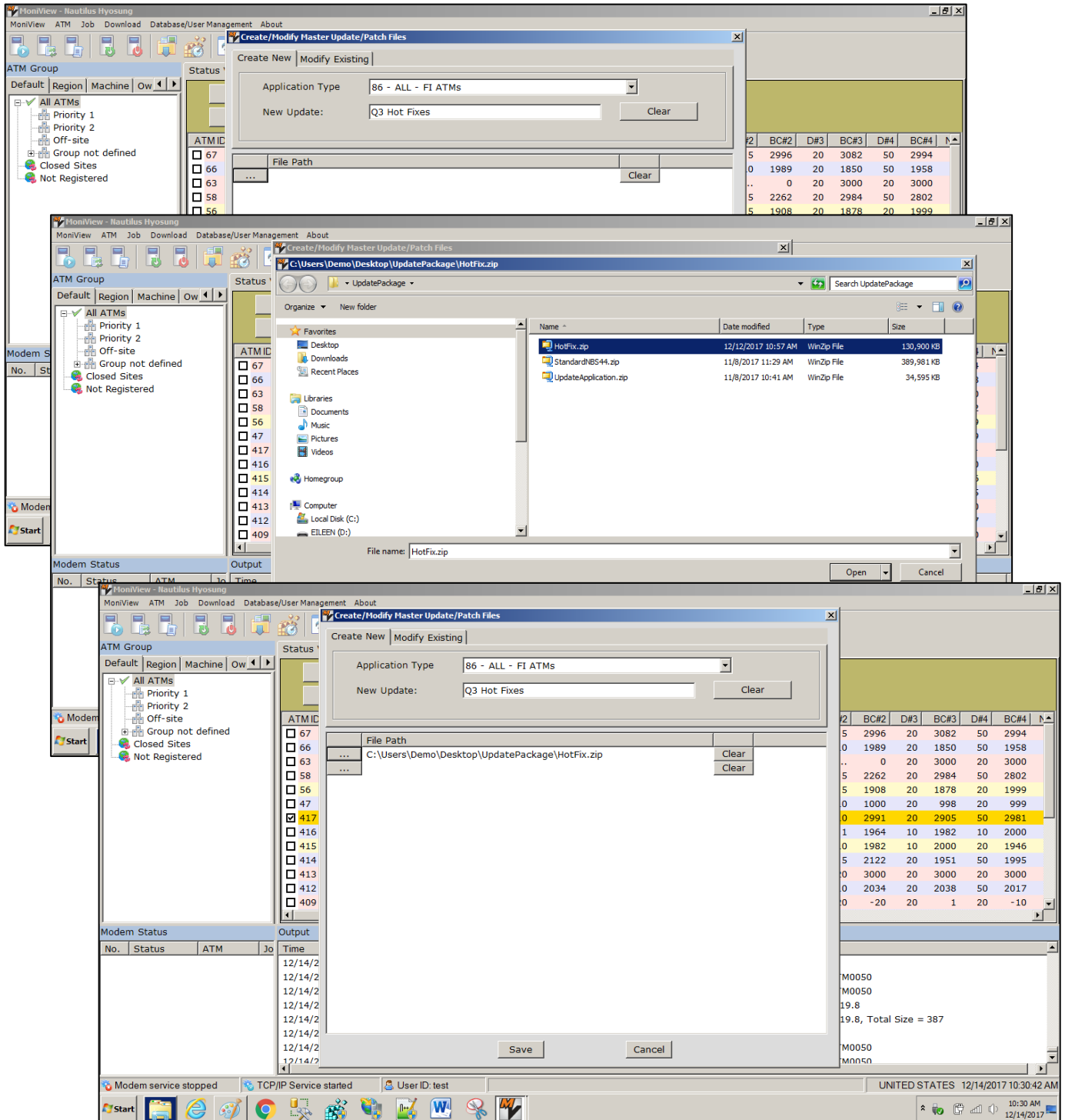
3. Press **Save** on the popup window to save the download package definition.

4. Select **Download** > **Download Update/Patch Files** from the MoniView desktop.
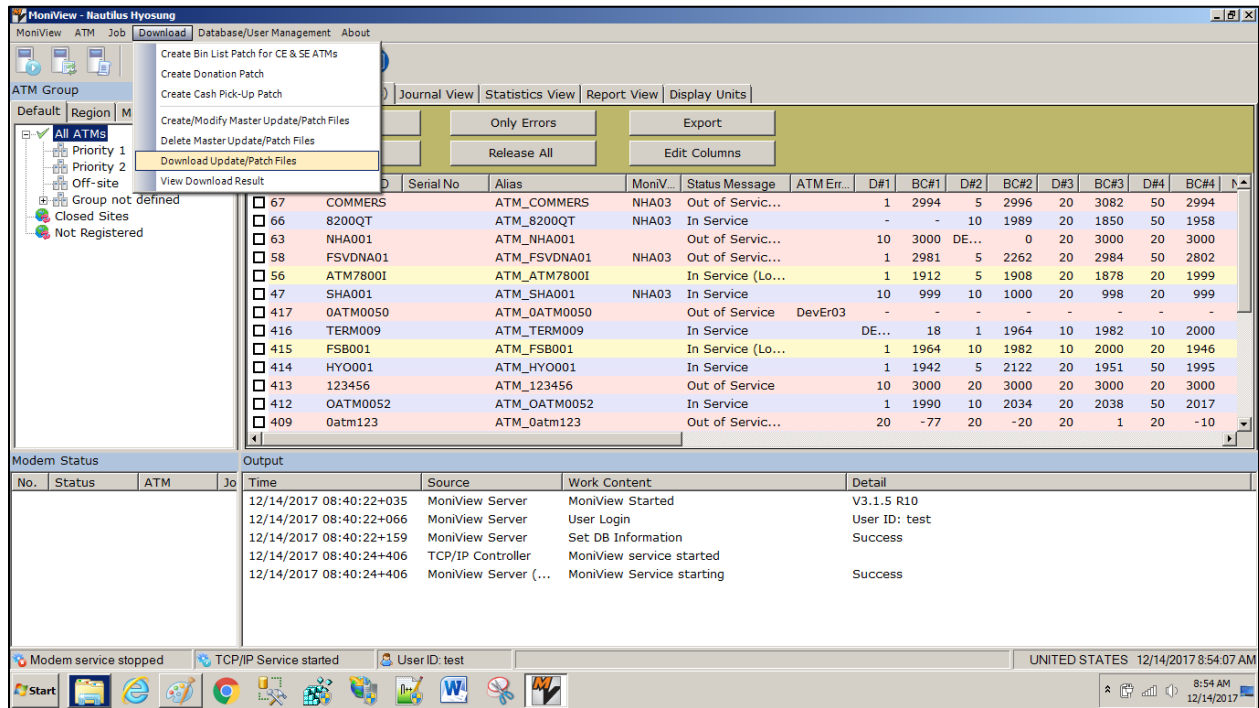
5. When the Download Files popup window displays, populate it as follows:

- Select **86 – ALL – FI ATMS** from the ATM Application Type dropdown.

- In the All ATMs box, highlight the ATM(s) to which you want to send the download and press **>** to move them to the Target ATM box. Alternately, you can press **>>** to select all ATMs.

- Click the **Update** dropdown and select the package you want to download.

- Verify that the **Execute Immediately** and **Retry Enabled** boxes are set the way you want. If you do not want to send the update immediately, uncheck the Execute Immediately box and then enter the Start Date and Time to send the update.

- Press **OK**. The download will start with immediately or at the selected date and time.
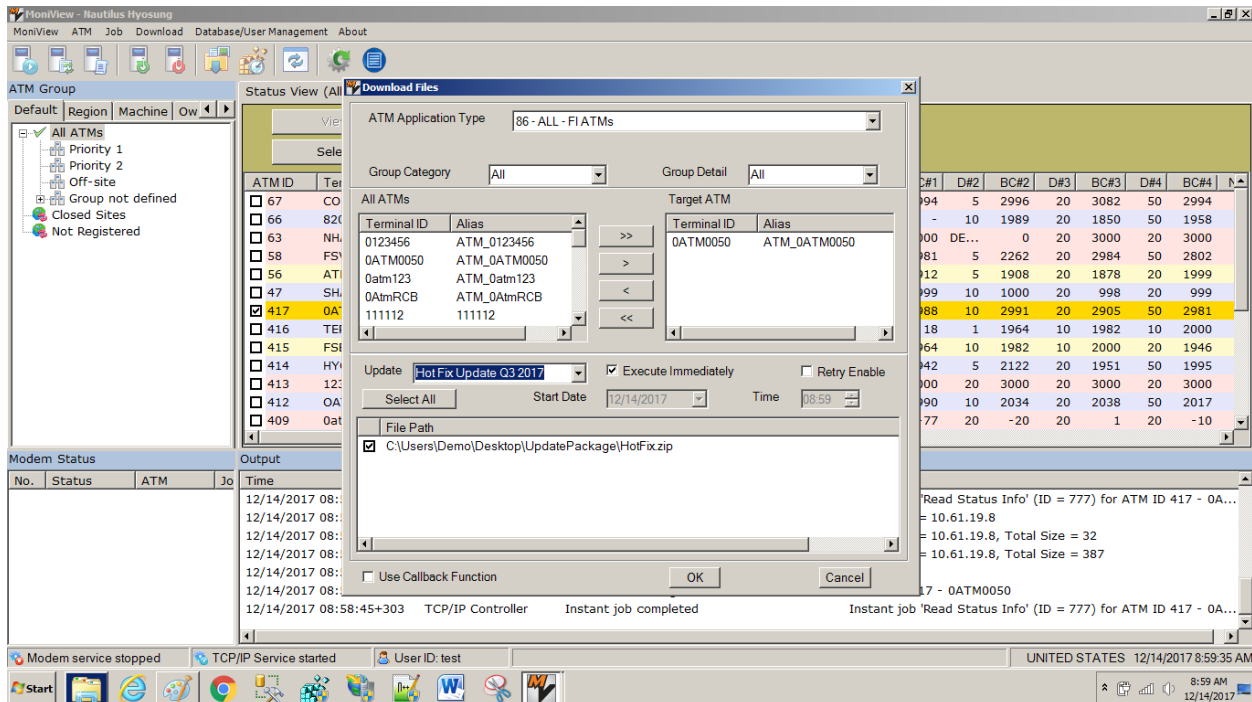
When the download runs, you will see the download details in the output window portion of the desktop. At completion, you will see "Scheduled job completed" in the output windows. See the screen samples on the next page for examples.

At the ATM, the update will install automatically and the ATM will reboot one or more times depending upon the update. After the update installs, the ATM will automatically go back in service.

Download in process

Download completed

I.3   Troubleshooting

When a download fails, one or more errors will be reported to you on the MoniView desktop. These could be MoniView errors or ATM errors and can be used to determine what happened and possibly why. Errors will display in two areas of the desktop: the Output section and the error columns in the main window area. You can view descriptions for the errors in the error code database that is installed with MoniView as explained later in this section.

In the sample screen shown below, you can see that the download for ATM FFL028 failed with an error code of NHA03 in the Output area and can also see the same error code listed in the MoniView Error column on the main windows for ATMID FFL028.
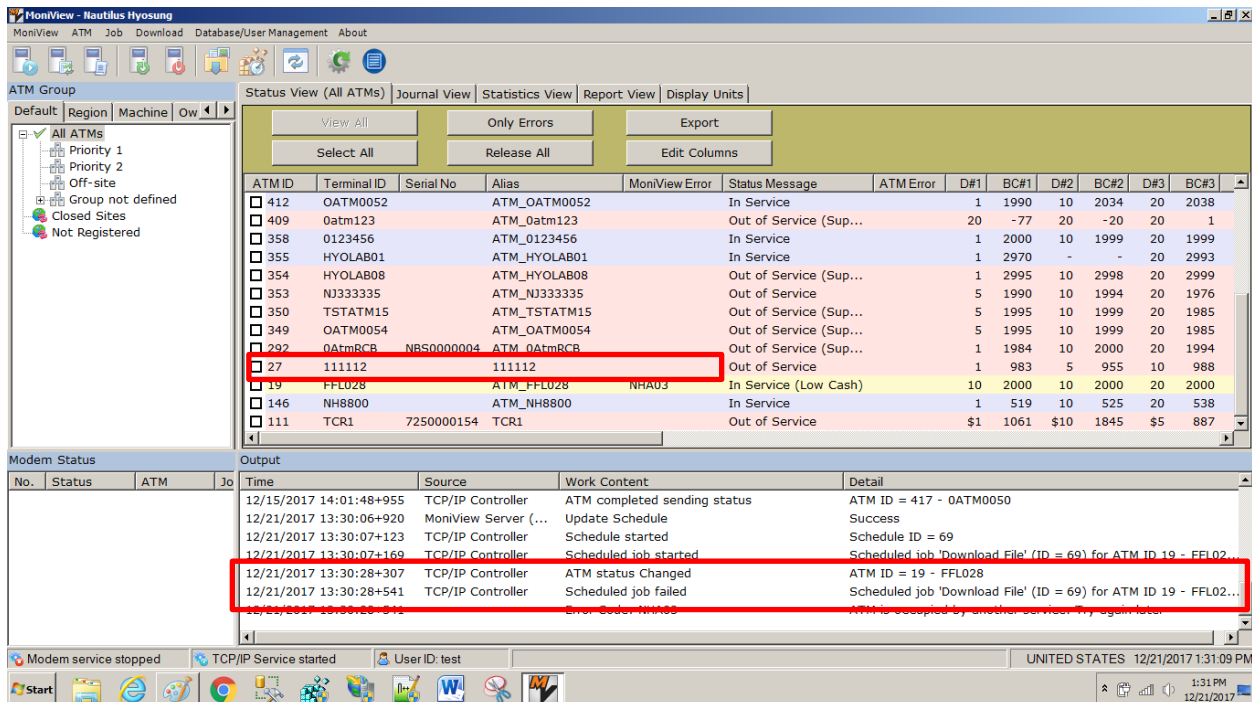
When a download fails, you can take several actions to rectify the situation depending upon the reason for the failure.

1. Restart the download. This is the simplest action and often fixes the problem.

2. View the error code(s) for information and corrective actions. To view an error code:

   - Select **Database/User Management** > **View Error Codes** on the desktop.

   - Select the **ATM Error** tab or **MoniView Error** tab depending upon the error. You can then double-click on the specific error to receive more information.

   The screen samples on the next two pages show the menu selection, error code tabs and an expanded error description for MoniView error NHB13.

You can also reboot the MoniView workstation/server or the ATM if other actions do not provide a solution.

View error code screens

Error code explanation

I.3.1 Notes for Individual Errors

This section contains additional information about selected error codes collected through experience with the MoniView and MoniPlus2 products.

NHB11 – Data communication error (Receive Timeout)

This error indicates that the customer's network cannot handle the block size being sent by MoniView. The default block size is 65535 and the valid range is 2048 – 65535. You can change the block size by opening the **C:\Program Files (x86)\Nautilus Hyosung\MoniView\RMSSettings.xml** file on the MoniView server and decreasing the **<DownloadFileBlockSize>65535</DownloadFileBlockSize>** parameter (10000 is a good starting point). Then save the file, restart the MoniView server and try the download again.

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