DC2045-2060 SW Download Fail RAP

Purpose: To recover from failed IOT software download attempts in order to successfully complete the software download.

Note: This procedure is to be used when the Software Download did not complete successfully and NOT as a substitute for the Software Download Procedure.

Introduction
During the SW download, the serial cable is used to put the PWB in download mode and erase the ROM. The parallel cable is used for downloading the sw.bin files. Use caution when loading the System bootloaders. If the parallel cable is not properly connected during SW download, the ROM will erase (serial) but no files download (parallel). DO NOT power off the IOT or the System PWB will not recover. Correct the problem with the parallel port communications (see initial actions). On some laptops exiting Diagnostic mode on the PWS and sometimes rebooting the PWS is required to resolve a PWS lockup. When a SW download fails a folder labeled "EPC-DL Error Logs" is created on your desktop. The folder contains log files providing failure information that may be helpful. These files can be emailed to second level support for review.

Initial Actions
- Ensure that the PWS has the latest Diagnostics/ Download Tool loaded.
- Ensure that the PWS Serial and Parallel cables are securely connected between the System PWB and the PWS.
- Ensure that the Parallel Port Adapter Tool (600T2262) is connected.
- Ensure that the PWS is connected to an AC Power source.
- Ensure ESD Procedures are being performed.
- Ensure Palm Pilot Sync Tool is not running it will adversely effect serial port communications.
- Ensure no printers are configured to LP1. This will adversely effect parallel port communications.

Caution: Before downloading software check the UI IOT "Error Log" screen. Correct any active 003-3xx (or other) communication faults before proceeding.

Note 1: Unless directed or if disconnecting/reconnecting PJs or PWBs, DO NOT power off the Machine If machine is locked in download mode (Black Screen) observe the LEDs on the IOT PWB are lit to determine whether machine is on.

Note 2: The Message "Unable to return to customer mode" when disconnecting the download tool is normal when a download failure occurs. Press OK to clear this message.

Table 1 SYS and IOT Bootloader Files

Component Description	Version	Device	Filename
SYS PWBA Bootloader Software	V3.002	SYS0	s003002a.bin
IOT PWBA Bootloader Software	V0.509	IOT2	o200509a.bin

Procedure

Refer to Table 1. **Error occurred while attempting to download the SYS or IOT Bootloader files**.
Y   N

        Go to **SubPart C** and perform with the Single-File Download Procedure.

Error occurred while attempting to download the IOT Bootloader File.
Y   N

      Refer to **Subpart A** and Download the SYS Bootloader File. **Message "The IOT does not appear to be connected to the serial port. The condition could be caused by a bad cable or the IOT serial port not being active" is displayed.**
      Y   N

            Message "Error in Image Send command (6)" is displayed.
            Y   N
            Message "Download Completed Successfully" is displayed.
            Y   N
                  Replace the System PWB (PL 3.12)

            Click **OK**.
            Click the Disconnect button to exit the download tool. The UI will probably not return to the customer mode. This is normal. If it does return to customer mode, wait for the UI to pass the initial Greeting (Welcome) Screen and machine power on cycle has completed, before powering off. Wait 15 seconds and switch on machine. Return to Software Download Procedure originally being used before the download error occurred and complete the remaining steps.

      Check/Replace the Parallel cable between the PWS and the machine
      Check that the NVM MEM (daughter) PWB is fully seated on the System PWB
      Perform the SYS Bootloader Download Procedure again.
      Replace the System PWB (PL 3.12) if download failure continues.

Ensure machine is powered On (Note 1).
Ensure connectors between the Electrical Module and IOT (PJs 77, 763, 792, 790, 794), the Ecology Module and IOT (PJs 76, 784, 787, 775, 798, 797, 760, 699), and Inline PJs 776, 762, 799, 789, 78 and 77) are properly seated.
Ensure System PWB is correctly installed in Electrical Module.
Connect and/or Check/Replace the Serial cable between the PWS and the machine. Perform the **SYS** Bootloader Download Procedure again.
Replace the System PWB (PL 3.12) if download failure continues.

Refer to **Subpart B** and Download the IOT Bootloader File (o200509a.bin). **Message "The IOT does not appear to be connected to the serial port. The condition could be caused by a bad cable or the IOT serial port not being active" is displayed**.

Y   N

| **Message "Error in Image Send command (6)" is displayed.**
| Y   N
| | **Message "Download Completed Successfully" is displayed**.
| | Y   N
| | | Replace the IOT CPU MEM PWB (PL 3.2).
| | |
| | Click **OK**.
| | Click the Disconnect button to exit the download tool. The UI will probably not return to the customer mode. This is normal. If it does return to customer mode, wait for the UI to pass the initial Greeting (Welcome) Screen and machine power on cycle has completed, before powering off. Wait 15 seconds and switch on machine.
| | Return to Software Download Procedure originally being used before the download error occurred and complete the remaining steps.
| |
| Ensure that PJs 652, 454, 794 and 776 between the Base Motherboard and IOT PWB are correctly seated.
| Check/Replace the Parallel cable between the PWS and the machine
| Check that the IOT CPU MEM PWB (PJ432) is fully seated on the IOT PWB
| Perform the IOT Bootloader Download Procedure again.
| Replace the IOT CPU MEM PWB (PL 3.2) if failure continues

Ensure machine is powered On (Note 1).
Ensure connectors between the Electrical Module and IOT (PJs 77, 763, 792, 790, 794), the Ecology Module and IOT (PJs 76, 784, 787, 775, 798, 797, 760, 699), and Inline PJs 776, 762, 799, 789, 78 and 77) are properly seated.
Ensure System PWB is correctly installed in Electrical Module.
Connect and/or Check/Replace the Serial cable between the PWS and the machine.
Perform the **IOT Bootloader** Download Procedure again.
Replace the IOT CPU MEM PWB (PL 3.2) if download failure continues.

SubPart A
SYS Bootloader Download Procedure

1. Click **Connect** to open communication with the IOT. After resetting, the machine will respond by filling in the Machine Information table on the Software Download Tool.

2. Download the SYS Bootloader.
    a) Click **File** and select **Add New**. A Select Files dialog window will open
    b) Select the CDROM drive in the Look in field
    c) Open the **DC2045-2060\upgrade** folder.
    d) Open the **DC2045-2060 IOT v6.2.8** folder.
    e) Open the **bootloader** folder.
    f) Double click on the **S003002a.bin** file. The Select Files dialog window will close, and the file will appear in the **Download File List**.
    g) Click the **Start Download** button. Select **Yes** to continue.
    h) Click **OK** when the Download completed successfully message box appears.
    i) Return to RAP procedure

SubPart B
IOT Bootloader Download Procedure

1. Click **Connect** to open communication with the IOT. After resetting, the machine will respond by filling in the Machine Information table on the Software Download Tool.

2. Download the IOT Bootloader.
    a) Click **File** and select **Add New**. A Select Files dialog window will open
    b) Select the CDROM drive in the Look in field
    c) Open the **DC2045-2060\upgrade** folder.
    d) Open the **DC2045-2060 IOT v6.2.8E** and **bootloader** folders.
    e) Double click on the **o200509a.bin** file. The Select Files dialog window will close, and the file will appear in the **Download File List**.
    f) Click the **Start Download** button. Select **Yes** to continue.
    g) Click **OK** when the "Download completed successfully" message appears.
    h) Click the **Disconnect** button to exit the Download Tool
    i) Return to RAP procedure.

SubPart C begins on next page.

SubPart C
Single File Download Procedure

NOTE 3: *During the Software Download Procedure, it is critical that the correct machine type (**Copier** or **Printer**) be selected in the Software Download Tool.*

Perform the Following:
1. Select **OK** to clear Fault message.
2. Record (Write down) the file names shown in the Download File List that were being downloaded when the download failure occurred.

NOTE 4*: If you attempted to download again, before recording the files, or if you cleared the Download File List after the initial download failure then download all the files indicated in Table 2.*

3. Exit download tool by clicking Disconnect button.
4. The UI will probably not return to the customer mode. "Unable to return to customer mode" will be displayed. This is normal. If UI does return to customer mode, wait for the UI to pass the initial Greeting (Welcome) Screen and the machine power on cycle has completed, before powering off the machine. **Power Off the machine**, wait 15 seconds and switch on machine. Wait for machine to re-enter download mode (Black screen) or for the UI to pass the initial Greeting (Welcome) Screen before reconnecting the download tool.
5. Restart the Download Tool by clicking **Connect**.
6. Select the CD- ROM Drive by clicking on the Drive pull down, then scroll to the drive where the software is located. If the CD- ROM drive letter is already displayed but not highlighted, click on the drive letter to highlight it.
7. Use the **Set Version** pull-down arrow to select **DC2045-2060 v6.2.8.**
8. Select the **Language**. If the correct language is displayed, click on the language.
9. Select the Machine Type **Copier** or **Printer**.
10. Right mouse click on the **Download File List** to activate a pop- up menu.
11. Select **Delete All** to clear the contents of the **Download File List.**
12. Right click in **Download File List** again, to open up the pop- up menu.
13. Select **Add New.** A Select Files dialog window will open.
14. Select the first individual file to be downloaded from the list in **Table 2: Software Release Individual Components**, which corresponds with the files recorded earlier.
15. Navigate to the folder containing that file.
    - Copiers files are in the **Copier** Folder.
    - Printer files are in the **Printer** Folder.
    - Language Files are in the **Language** Folder.
16. Double click on the **file** to be downloaded. The Select Files dialog window will close, and the file will appear in the **Download File List** window.
17. Single click on the **file** in the **Download File List** to highlight it.
18. Click the **Start Download** button. Select **Yes** to continue.
19. Click **OK** when the "Download completed successfully message" is displayed.

NOTE 5 *: The SYS PWBA Software will be downloaded 1st, the IOT PWB Software will be downloaded 2nd, the UI PWB will be downloaded 3rd, Language Files will be downloaded next and if the machine is a Copier, the IISS and IPS Software will be downloaded last.*

Y   N

Select **OK** to clear Fault message and exit download tool by clicking **Disconnect** button**. (***See Note 3***)**
Go to **Table 3: Troubleshooting Procedures** and perform troubleshooting steps for the file that did not download. After performing the actions in Table 3 download the file again from step 4.
The file downloaded successfully.

Y   N

Replace the respective PWB.

Perform steps 10 through 18 for the remaining files that you recorded earlier.

Perform steps 10 through 18 for the remaining files that you recorded earlier. **All the files downloaded successfully.**

Y   N

Contact Field Engineering or your local Technical Support.

Return to Software Download Procedure originally being used before the download error occurred and complete the remaining steps.

Table 2: Software Release Individual Components

Component Description	Version	Device	Filename	File Download Order
SYS PWBA Software	V6.272	SYS1	s106279a.bin	1st
IOT PWBA Software	V6.203	IOT0	o096218a.bin	2nd
		IOT1	o196218a.bin	3rd
UI PWBA Control Software	V6.104	UI0	u006109a.bin	4th
UI PWBA Frame/ ARTOP Software (Language) (SEE NOTE 6)	V6.16xx Language	UI1	f00621xx.bin	5th
		UI2	f10621xx.bin	6th
		UI3	f20621xx.bin	7th
IISS PWBA Software	V5.210	IISS	i005210a.bin	8th
IPS PWBA Software	V5.010	IPS	p006001a.bin	9th

NOTE 6: *Refer to Software Release Notes for Current Software Languages applicable. Files listed do not indicate what will be displayed for language files in the Download File List. Download the language files that are displayed based on the first three characters f00xxxx, f10xxxx, f20xxxx for the language files displayed in the Download File List.*

Table 3: Troubleshooting Procedures begins on next page

Table 3: Troubleshooting Procedures

PWBA	File Name	Corrective Procedure
SYS PWBA Software	s106279a.bin	Reseat the System PWB in the card cage. Check that the NVM MEM (daughter) PWB is fully seated on the System PWB. Attempt to download the file again. Replace the System PWB (PL19.2) if the download fails again.
IOT PWBA Software	o096218a.bin o196218a.bin	Check all connectors on the IOT PWB (PL 13.3), especially P/J 454. Ensure connectors P/Js 652 and 650 on the Base Motherboard PWB is correctly seated. Ensure Inline connectors P/Js 794 and 776 are correctly seated. Attempt to download the file again. Replace the IOT CPU MEM PWB (PL 3.2). If the download fails again.
UI PWBA Control Software	u006109a.bin	Ensure P/Js 600 and 601 on the UI Assembly are correctly seated. Ensure connectors P/Js 652 and 650 on the Base Motherboard PWB are correctly seated. Ensure Inline P/Js 700, 786 and 790 are correctly seated. Attempt to download the file again. Replace the UI PWB (PL 13.4) if the download fails again.
UI PWBA Language Software **SEE NOTE 6**	f00621xx. bin f10621xx. bin f20621xx. bin	Ensure P/Js 600 and 601 on the UI Assembly are correctly seated. Ensure connectors P/Js 652 and 650 on the Base Motherboard PWB are correctly seated. Ensure Inline P/Js 700, 786 and 790 are correctly seated. Attempt to download the file again. Replace the UI PWB (PL 13.4) if the download fails again.
Yahoo (IPS) PWBA Software	p006001a.bin	Reseat Yahoo (IPS) in the card cage. Check that the NVM MEM (daughter) PWB is fully seated on the Yahoo PWB. Ensure connectors P/Js 662 and 660 on the SCNK Motherboard PWB are correctly seated. Attempt to download the file again. Replace the Yahoo (IPS) PWB (PL 19.7) if the download fails again.
Pre- IPS PWBA (IISS) Software	i005210a.bin	Ensure connector P/J3B on the IIT LVPS (PL 15.6) and Inline PJ78 are connected. Ensure P/J4, P/J26, P/J27, P/J28, on the LVPS B (PL 19.6) are correctly seated. Ensure communication cable P/J 528 (IIT) to the IIT Buffer PWB and PJ661 to the SCNK Mother PWB (Electrical Module) are correctly seated. Check IIT LVPS. Go to and perform the +3.5VDC (IIT LVPS) RAP, +5 (IIT LVPS) RAP, +13 (IIT LVPS) RAP and the +24 (IIT LVPS) RAP Ensure the Pre-IPS PWB is fully seated to IIT Buffer PWB (PL 15.6). Attempt to download the file again. Replace the Pre-IPS PWB (PL 15.6) if the download fails again.