# Release Notes

English

# Lotem 800 II Family

version **3.75.09**

Document Number:
739-00030A-EN

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| 5,132,723 | 5,420,702 | 5,636,330 | 5,894,342 | 6,090,529 | 6,214,276 | 6,441,914 |
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| 5,155,782 | 5,473,733 | 5,652,804 | 5,942,137 | 6,107,011 | 6,266,080 | 6,476,931 |
| 5,157,516 | 5,481,379 | 5,680,129 | 5,946,426 | 6,112,663 | 6,266,134 | 6,477,955 |
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| 5,208,888 | 5,497,252 | 5,691,828 | 5,958,647 | 6,121,996 | 6,268,948 | 6,541,181 |
| 5,247,174 | 5,508,828 | 5,696,393 | 5,966,504 | 6,130,702 | 6,283,589 | 6,545,772 |
| 5,249,067 | 5,509,561 | 5,699,174 | 5,969,872 | 6,134,393 | 6,295,076 | 6,564,018 |
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# Introduction

We are pleased to send you the latest revision of Lotem 800 II Family software. These release notes highlight the changes and improvements made to release 3.75.09 of the software. This version supports all Lotem 800 II, Lotem 800 Quantum and Lotem Spectrum platesetters with multi/dual/single cassettes and can be installed over the following previous software versions: 3.51.02, 3.60.09, 3.61.02, 3.70.02, 3.72.02, 3.75.01.

## What Is in These Release Notes

The release notes include the following sections:

*Prerequisites*—lists the required prerequisites.

*Important Notes*—lists the important notes relating to a Brisque, a Prinergy and when upgrading from one platesetter to another.

*Problems Fixed*—lists problems in the previous release of Lotem 800 II Software that are now resolved.

*New Features*—describes new menu commands, options, windows, or dialog boxes that were added to Lotem 800 II Software.

*Known Problems*—lists problems that are not yet resolved.

*Hardware Upgrade Kit*—provides a link to a document describing how to perform a hardware upgrade, prior to installing the software.

*Installing Software Version 3.75.09*—describes how to install software version 3.75.09.

*Upgrading from Version 3.75.01 to 3.75.09*—describes how to upgrade from software version 3.75.01 to 3.75.09

*Firmware for Version 3.75.09*—describes the firmware versions that are loaded in the TMCE board and Thermal Head 2 (TH2) when installing this software version.

*Defining the Drum Speed*—describes how to define the correct drum speed.

*Specifying the Head Type*—describes how to specify the correct type of head.

*Additional Preparations for Spectrums*—describes the additional preparations needed for Spectrum platesetters.

*Specifying the Head Type for Quantum and non Quantum Platesetters*—describes how to start the software.

*Installing 3.75.09 on a Lotem 850*—describes how to install the software on a Lotem 850 platesetter.

*Remote Support*—provides remote support information.

*Diagnostics*—describes how to perform a full diagnostic check.

# Prerequisites

1. Lotem Quantum versions for all 800 platesetters: 3.51.02, 3.60.09, 3.70.02, 3.72.02 or 3.75.01
   To upgrade from older versions to version 3.75.09, see the Hardware Upgrade Kit for Version 3.75.09.



**Note:** Other versions of Lotem software cannot be upgraded directly. For example, if software version 3.50.05 needs to be upgraded for the MCU as well as version 3.75.09, the MCU must first be upgraded to version 3.60.09, followed by the software version 3.75.09 upgrade.

2. **Workstation:** Brisque version 4.1.70 (or higher) or CS Xpose 1.01.028 patch 4 or higher. For more details, see the Loading Patch #4 or higher for CS Xpose procedure.
3. **Operating system:** Windows 2000 operating system.
4. **CPU:** New SBC 786 board.
5. **E-Box:** without the NUC card.
6. **Recommended Conveyor:** (FCO 512-00044)
   If a conveyor motor without an encoder is installed, the value of the**Second conveyor motor speed** parameter (**Lotem800>IO OBJECT>Loading System>Unload plate>Second conveyor motor speed**) must be set to **0**.

# Important Notes

## When Running Prinergy

Loading Patch #4 or higher for CS Xpose. This enables CS Xpose to connect to a platesetter running Lotem Controller software version 3.75.09.

## When Running Brisque

- Navigate to the Device Handling dialog box.
- Delete the previous platesetter configuration and create a new one.
- Restore the Punch System and Press Format settings.

## When Upgrading to a Faster Platesetter

Make sure that a dongle (HASP key) has been added to all the PCs running software version 3.75.09 and change the head accordingly. Platesetters will not expose plates unless the correct HASP has been added.

# Problems Fixed

This section lists problems that are resolved in the current release of the Lotem 800 II Family software.

- Use the diagnostic monitor configured to Foc7 mode while exposing proof to eliminate proofing job failure due to time-out. This problem was fixed.
- When opening a Solenoid dialog by pressing Start and immediately clicking Stop, a debug error message is no longer generated.
- The key **Lotem800V\I O Objects\Punch Card\Spiral Motor\Punch Spiral Motor\Min Pos App Value** is no longer set to a default value of 1.
- A deadlock, in case of drum motor speed, is no longer activated while performing load/unload grippers.
- If the laser defeater (cheater) has been removed from the platesetter, the "...please perform emergency stop.." error message is no longer generated.
- There is no longer a deadlock in the LoadAreaProtector.
- The Cassette Area Protection for DLC has been resolved.
- The drum vacuum shut down problem was resolved.
- The Prinergy shut down problem was resolved.
- MCU.avi movies are now working correctly.
- A debug message no longer appears when the Diagnostics application is shut down.
- The remote support 'one-click activation' is now working automatically.

# New Features

This section lists features that were added in the new release of Lotem 800 II Software.

## Speed Improvements

**V speed:** Drum speed can be set to a maximum value of 375 rpm and upto 29 plates per hour*.

**F speed:** Drum speed can be set to a maximum value of 235 rpm and upto 22 plates per hour*.

**S speed:** Drum speed can be set to a maximum value of 150 rpm and upto 15 plates per hour*.

* Depending on the type and size of media used. See Media Calculator.

## Two Types of Thermal Heads

Version 3.75.09 supports two types of thermal heads:

- P22 head (Quantum)
- P33 head (Quantum Ready)

To view the head type setting procedure, see *Specifying the Head Type for Quantum and non Quantum Platesetters*.

**WARNING:** Check the head type BEFORE entering the configuration settings. If you enter incorrect settings the platesetter will not be able to expose any media and you will not be able to re-enter new configurations!

Various HASP keys have been added to protect this feature:



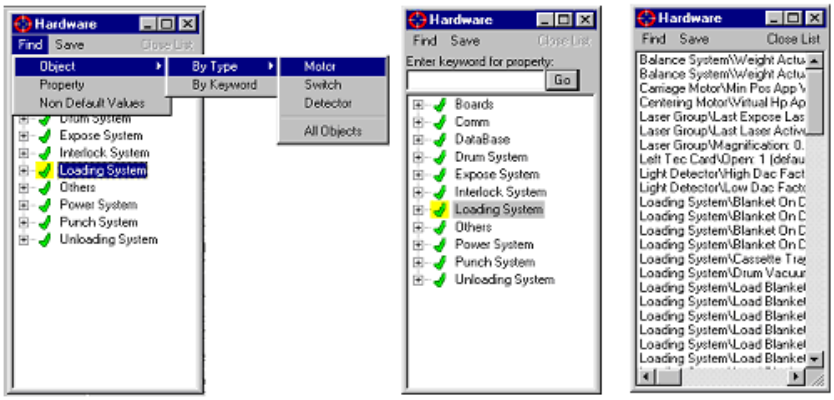

To view the drum speed setting procedure, see *Defining the Drum Speed*.

**Note:** These procedures must be completed in order for the platesetter to expose correctly.

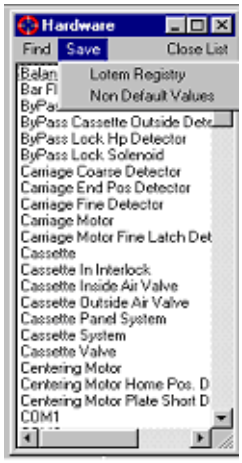
## New Menu Options

The following new menu options have been added to the Hardware hierarchy:

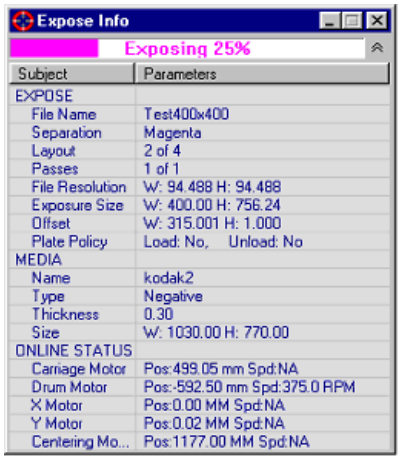
1. Find
   - Object
     a. By type: Motor/Switch/Detector/All Objects
     b. By Keyword
   - Non-default values




2. Save
   - Lotem registry
   - Non-default values

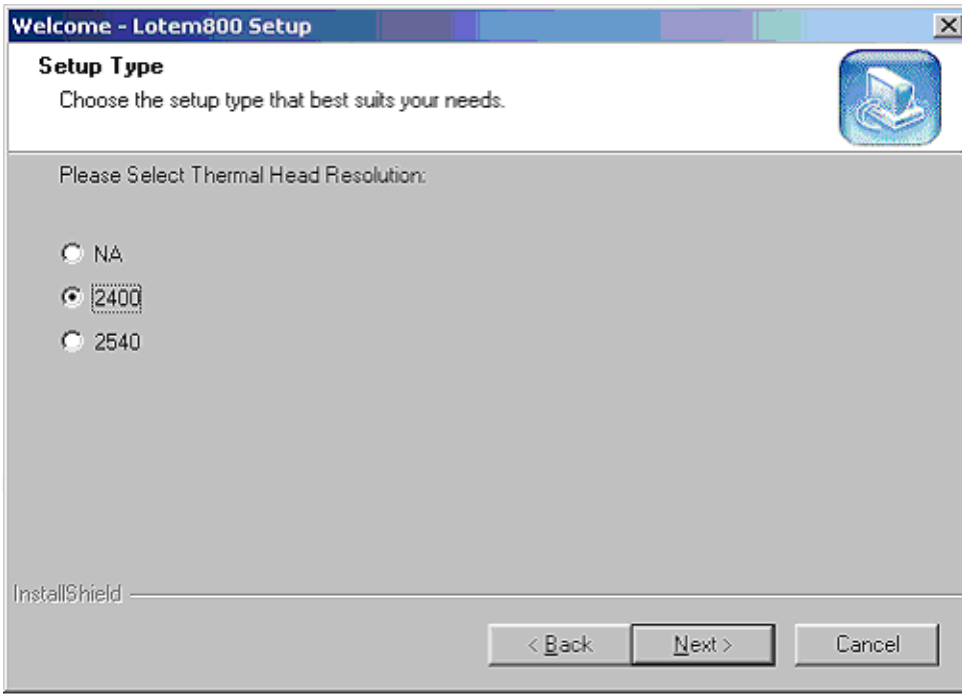


The expose progress indicator is now colored according to the separation color (plates & proof). Spot colors are by default dark blue.




## Thermal Head Resolution

A new window has been added to the software, enabling you to select the thermal head resolution.

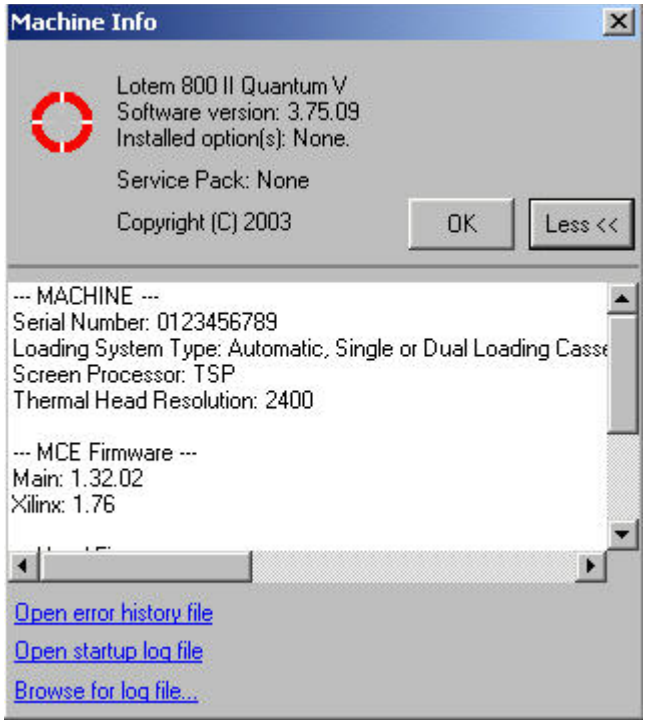



In the Setup Type dialog box, select the required thermal head.

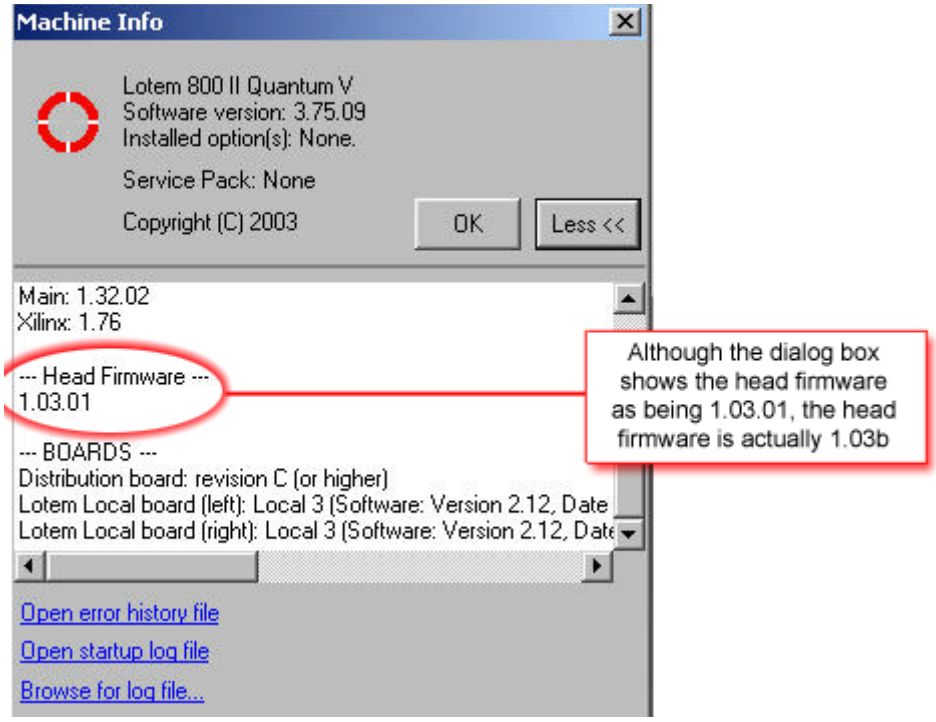
## Improved Machine Info Dialog

The Machine Info dialog has been improved and now includes:

- Head type (Lotem 800 II or Lotem 800 II Quantum).
- Platesetter type (S / F / V).
- Installed elements: MCU or Spectrum.
- Head version information.
- MCE firmware.
- Platesetter serial number.
- Information regarding the boards attached to the platesetter.




Platesetter information




Firmware and board information

## Spectrum Platesetters

Several procedures need to be completed before a Spectrum platesetter can expose a proof, as described in the section *Specifying the Head Type for Quantum and non Quantum Platesetters*.

## Parallel Punching

Enables any amount of defined punching to be performed in parallel by the platesetter. The parameter's default value is automatically set for parallel punching.
To disable the parallel punching, amend the parameter's value from 10 to **1**:
**Projects\Lotem800\IO Objects\Punch System\Punch System**
**Max Punches Current (mA)** = **1**

## Image Disk

The image disk now includes: Windows 2000, Internet Explorer version 6, WinZip and Acrobat Reader.

## Paper Disposal Warning Light

The paper disposal warning light now supports platesetters with MCU.

## New Registry Parameters

New registry parameters have been added to support 0.15 mm plates. The new parameters ensure efficient plate separation.
See Setting Parameters for 0.15 mm Plates.

## Conveyor Speeds

The speed can now be set to either **Fixed Speed** or **Variable Speed** (default).

## Punch Retry Option

A Punch Retry option has been added to the loading system.
If you are required to punch the plate more than once, amend the **Loading System\From punch entry to drum\Times to repeat punch** parameter, which by default is set to 1.



**Note:** Amending this parameter reduces the platesetter's throughput.

## Blanket Depth Parameter

A new parameter to determine the depth at which the blanket enters the loading grippers has been added to the registry to support Spectrum functionality. The parameter **IO\Objects\Loading System\Loading System Setup\X In Drum Final for Blanket (mm)**, has a default value of 10 (the same as for plates). The parameter should be calibrated for Spectrum platesetters.

## Retrieving Information

To retrieve information regarding the head, type the following:

`QUANTUM>>` **access dev**

`QUANTUM>>` **ceh head info**

The following information appears on the monitor:

Exposure Head Type = Thermal 2

Firmware Build = Release

Firmware Version = 1.03b

Serial Number = T00339

Head Model = Standard



**Note:** The above output includes head information such as the **Head Model** (Standard = P22 head; Entry level = P33 head) and the **Head Serial Number.**

To retrieve a protocol level, type the following:

`QUANTUM>>` **set ehi protocol**

The following information appears on the monitor:

PRM ehi parameters

Group = ehi

Parameter = protocol

Activer = True

Default = True

Units



**Note:** The above firmware contains a change in protocol from AP0 to AP1. The protocol should be True (indicated by AP1). If the protocol is False, some head scripts may not work correctly.

To change the protocol from False to True, type the following:
`QUANTUM>>` **set ehi protocol**

## New Load Commands

New load commands for plates and proofs are described in the Service Shell Quick Start Guide.

## New Firmware Command

A new firmware command named **Feature**, has been added. The command enables the minimum and maximum sizes of sscan/mscan to be changed (as described in the section Changing Mainscan and Subscan Sizes of the Service Shell2.5 Installation and Update Guide.

## Improved System Balancing

A new parameter to improve system balancing has been added to the registry:
**IO Objects\Balance System\Distance Between Plate Edge to Drum Zero (mm)**
The parameter provides new static balancing with new dynamic balancing.
The parameter's value can be either set to 4.5 mm for platesetters with a Type II mainframe, or 0 mm for earlier mainframes.
The installation software checks for the existence of this parameter in the registry.

## Diagnostics

Version 3.75 includes a software package for Lotem 800 diagnostics. Additional components supported by the diagnostics software package include:

- Local3, left and right
- Enable/Disable for Focus; Resolution; Spiral motors
- Platesetters with Omron.
- New loading system motors.
- Local3 MCU loader.
- Diagnostics for MCU.

## Remote Connection

Version 3.75.09 includes two tools for remote connections:

- VNC
- Net Meeting
- The drum speed limitation was removed when working from a remote connection.

## Lotem Backup and Restore Utility

The **Lotem backup and restore utility,** (located at the following path: **C:\Lotem\Util\Lotem Backup Install.exe**) is a new, utility that can be installed on the desktop of the Lotem. This utility presents a fast and easy way to save and restore the Lotem registry section and database. For further information see the Lotem backup and restore utility document.

## Refresh Script

A new parameter named **refresh script** was added to the loading system (IO Objects>loading system).
The parameter instructs the software to load all the loading scripts at startup, as opposed to loading them in every load sequence.



**Note:** The parameter's default value is 0 - however, for debugging and calibration purposes, the parameter must be set to 1 in order for the changes to take effect. After debugging/calibration, make sure to reset the value to 0, otherwise there will be a noticeable reduction in the platesetter's throughput.

## Service Shell 2.5 Installation and Configuration

The Lotem 800 II software version 3.75.09, includes a better tool for TMCE and TH2: **Service Shell Diagnostics**.

Service Shell is an application enabling direct communication with the TMCE board and the TH2 on Lotem Quantum platesetters. Service, diagnostics and calibrations can now be performed with no dependency on Lotem Controller.

Service Shell can be used to perform most of the operations that are handled by SPlot. The application also boasts an improved stability and reliability, better windows interface, automatic logging, efficient and quick firmware loading, faster remote access, multiple client connections to a single machine and more.

Service Shell is very user friendly and has several advantages, including:

- Easy connection, with a possibility to connect remotely.
- Very easy way to load firmware files - using the **download** command.
- Easy way to save NVS parameters of both the TMCE and the TH2.
- Scripts for calibrating the head.
- Automatic logging of TMCE and TH2 messages.
- An easy to use BugZipper.

See Service Shell2.5 Installation and Update Guide.

# Edge Surface Reflectivity

Plates with sharp, untrimmed edges, or plates in which the emulsion does not cover the entire surface area, require more power when edge detection is performed. The plates' exposed aluminum prevents normal edge detection from working correctly because the surface reflectivity is different on aluminum from that of emulsion.
To overcome this problem an **Edge Surface Reflectivity (edge sr)** parameter was added to firmware versions 1.03b and higher.
See Edge Surface Reflectivity (Edge SR)

# Creo Service Port

The Creo Service Port feature enables Creo Response Centers to access and control the Lotem software at a remote site. See Creo Service Port.

# Known Problems

This section lists known problems in the Lotem 800 II software. They may be outstanding issues from a previous release or new problems. When a problem listed here is resolved, the solution is described in the *Problems Fixed* section of the release notes for the next version of the Lotem 800 II software.

1. Software deadlock while working in the Drum Motor dialog box.
   **Description:** When using the Drum Motor dialog box for different operations (GoSpeed, GoPos etc.), a slight possibility exists that Lotem Controller will freeze. If the motor operation fails for example, trying to rotate the drum while the Load Roller is active is an illegal operation and the user receives an error message. Such a scenario can cause software deadlock and Lotem Controller will stop responding.
   **Workaround:** Restart Lotem Controller.
2. The two detectors, **Home and End Position Gripper**, will not function if they are in the same state - either ON or OFF. When this occurs, movement of drum is not permitted. The system only identifies this problem in Start Up mode.
3. After reconnecting the cassette to the Lotem in the single/dual cassette system, the following error may appear on the monitor: `Protector X Cassette Door is locked by Cassette Valve.`
   **Workaround:** Close Lotem Controller, and then run it again.
4. When attempting to install this software version onto a platesetter that does not have a previous version of the Registry installed, but Kit 0.15 or any variable punch has been installed, the following problems arise:
   - A message is displayed at start up informing you that the #09 and #10 detectors do not exist.
     **Workaround:** Navigate to **Lotem 800V\IO Objects\Punch Motor #09\Home Pos Detector** and change the existing default value to **NONE**. Repeat this procedure for the #10 detector.
   - Platesetter throughput is reduced.
     **Workaround:** Naviaget to **Lotem800V\IO Objects\Local 3\Punch Motors\Punch Motor #01\Punch Motor Time Out[DWORD] [Sec]** and change the default value 8 to **2**.
   - 0.15 mm plates collide with the punches.
     **Workaround:** Navigate to **Loading System\Load plate\from punch entry to drum entry stage\X on Wheel** and change the value from 312 to **307**.
5. The message `Your password will expire in the next xxx days` appears when the Lotem platesetter starts up.
   **Workaround:** In the General tab of the Administartor Properties dialog box, check the **Password never expires** checkbox and then click **OK**. For a more detailed descripriton of the workaround, see the troubleshooting document Preventing the Password Expires message when running Windows 2000.

6. Diagnostics fails when:
   - The value of the Strobe 7 parameter is not set to **0**.
     **Workaround:** Navigate to **Lotem800V\IO Objects\Strobe Cards\Strobe7\Strobe Card\Open** and change the value to **0**.
   - **IO Objects\Loader** is not deleted from the hierarchy tree.
     **Workaround:** Navigate to **Lotem800V\IO Objects\Loader**. Click once on the parameter to select it, then right click on the parameter and select **Delete** from the drop down menu. The parameter is deleted from the hierarchy tree.
7. A **5230** error message is displayed when trying to expose an image.
   **Solution:** Download **Xilinx patch 1.87**.
8. **Focus Learn** error message is displayed when switching from either:
   - Plate to proof and then back to a plate.
   - Proof to plate and then back to a proof.

   **Solution:** Load **head firmware 1.32.03.**
9. MCU elevator No. 5 cassette does not stop at the right position.
   **Solution:** Load patch???

# Hardware Upgrade Kit

To upgrade the Lotem hardware so that it is compatible with software version 3.75.09, see the Hardware Upgrade Kit for Version 3.75.09.

# Installing Software Version 3.75.09

To install software version 3.75.09, do the following:

1. Insert the BIOS diskette.
2. Before Windows starts, press the **F2** key continuously, until the BIOS Setup window appears on the monitor.
3. From **Bios/setup/inside utilities/secure cmos**, change the **secure cmos** status from Enabled to **Disabled**.
4. Click **F10** to save your changes. A prompt message appears. Click **Yes** to confirm the changes and exit the BIOS Setup window.
5. The BIOS default setting is automatically uploaded.



**Note:** Wait for the A prompt to appear on the monitor (this may take a few moments); then remove the BIOS diskette.

When the PC starts up the following message is displayed on the monitor:

```
System BIOS shadowed
System confi data updated - Error
Check date and time setting
F1- resume, F2 - setup
```

If nothing appears when you press any of the keys on the keyboard, check the mouse/keyboard connection - make sure it is secure and properly connected.

6. Insert the **Image CD** into the appropriate drive.
7. Restart the platesetter by pressing **Ctrl+Alt+Del** and wait for F1 to appear on the monitor. Click **F1**.
   Make sure the choice is set to **1**, and press **Enter**. The image is automatically loaded. After the CD is successfully loaded, remove the CD from the drive.
8. Press **Ctrl+Alt+Del** on your keyboard to restart the system. Wait a few moments for Windows 2000 to load. A time and date error message appears on the monitor.
9. Reset the time and date, then restart the platesetter.
10. Restore the registry from the diskette.
11. Reset the TCP/IP address by doing the following:
    - From the Start menu, select **Settings**.
    - Select **Control Panel**.
    - Double-click on **Network and Dial-up Connections**.
    - Double-click on **Local Area Connections**.
    - Click the **Properties** button.

- Double-click on **Internet Protocol (TCP/IP)**.
  Or
  Select **Internet Protocol (TCP/IP)**, click the **Properties** button and then modify the system name.
- Select the **Use the following IP address** option button and enter the desired TCP/IP address.
- Click **OK** and then **OK** again to exit the window.

12. Load your platesetter's appropriate Lotem PC version.

**Note:** When installing software version 3.75.09, you will need to enter the serial number of the platesetter. Enter the serial number as described in the section ***How to identify a platesetter's serial number*** on page 19.

13. In the Registry Edit, navigate to the following path: **HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\ CurrentVersion\ProductId** and in the **Value Data** field, enter the **Product Key** number displayed on the Windows 2000 software kit (included in this upgrade kit):




14. Remove the Product Key adhesive from the Windows 2000 software kit package, and affix it to the mainframe, located near to the E-box:

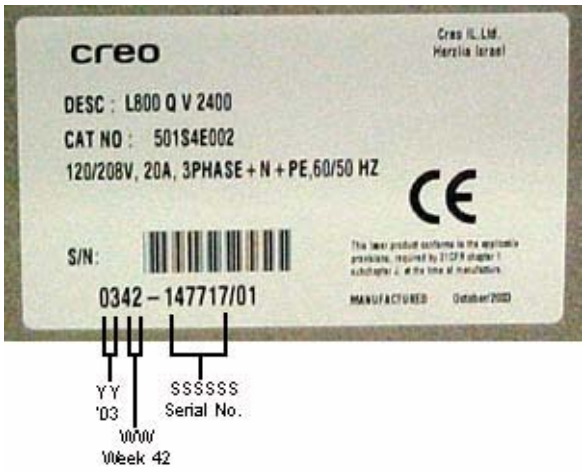


## How to identify a platesetter's serial number

On the back of each platesetter there is an adhesive label affixed to the lower rear panel. There are two different types of label, depending on the year the platesetter was manufactured.

When installing software version 3.80.09, the first four digits of the Lotem's serial number must be included in the 10-digit access code.
Identify the access code and serial number as illustrated below:

### Label I




The 10-digit access code,(**yywwssssss**) comprises of the following characters:
**yy:** Represents the year (first two digits)
**ww:** Represents the week (third set of digits)
**ssssss:** Represents the serial number (last six digits)
When the serial number only contains five digits, add a **0** to the end of the serial number in order to complete the installation. For example, the serial number 77777 would be entered as 77777**0**

### Label II



15. Install and run the **Lotem backup and restore utility** as described below:
    - Navigate to **C:\Lotem\Util\Lotem Backup Install.exe.**
    - Double-click **Lotem Backup Install.exe.**
    - Backup the Lotem registry and database.

    For more information see the Lotem backup and restore utility document.

16. Install and run **Service Shell 2.5** as described below:
    Navigate to:
    - **C:\Lotem\Util\QuantumFiles\ServiceShell\Installation\Win2K** and then double-click **ServiceShell-Client-CTP.exe.**
    - From within the same folder (Win2K), double-click **ServiceShell-Host-CTP.exe.**

    For more information see *Service Shell 2.5 Installation and Configuration.*

17. Type the following command in the Service Shell:
    QUANTUM>>**fw dir**
    Check that the correct firmware versions are loaded.

18. Set the media drum speed according to the speed of Lotem the customer has purchased. (Use the Media Calculator if required.)
    QUANTUM>> **th2 "set med X drumspeed Y"**
    Where:
    X is the index of the media minus 1
    Y is the speed:
    - **S** - 150 rpm
    - **F** - 235 rpm
    - **V** - 375 rpm



**Note:** This operation should be done on the ENTIRE media database in the MCE. (Use the media calculator if required.)

19. Set other required parameters:
    QUANTUM>>**set carriage mspeed 32**
    QUANTUM>>**set drum maxacc 11**
    QUANTUM>>**set drum tsettle 2**

20. Set GC parameters:
    QUANTUM>>**set gc**



**Note:** Make sure all the parameters are set according to the information obtained during step 5 of the Hardware Upgrade Kit for version 3.75.09. If the parameters are incompatible, enter the correct parameters.

# Upgrading from Version 3.75.01 to 3.75.09

To upgrade from software version 3.75.01 to version 3.75.09, do the following:

1. Expose a reference plate by exposing a customer's file (per plate size). Put the reference plate to one side.
2. Save the registry and database onto a diskette.
3. Write down the Lotem's TCP/IP address.
4. Open Service Shell and type the following: `QUANTUM>>`**set gc**.
   Write down all the parameter settings, including Trackprofile, or alternatively, save the settings as a text file.
5. Open the right hand side door of the platesetter.
6. Close Lotem Controller and the Service Shell client.
7. Insert **CD 3.75.09** into the CD drive.
8. Install the the software by following the on screen instructions.
9. Load the platesetter's appropriate Lotem PC version.

**Note:** When installing software version 3.75.09, the first four digits of the Lotem's serial number must be included in the 10-digit access code. Identify the access code and serial number as described in the section *How to identify a platesetter's serial number* on page 19.

10. Update the firmware version as decribed in *Firmware for Version 3.75.09*.
11. Start Lotem Controller by double-clicking on the **3.75.09 icon** on the Desktop. Make sure the platesetter reaches **Ready** mode.
12. Re-expose the reference plate and compare the results to the reference plate exposed in step 1 of these procedures. Compare the quality between the plates and make sure the GC did not change.

# Firmware for Version 3.75.09

The following firmware versions are to be loaded in the TMCE board and Thermal Head 2 (TH2) when installing version 3.75. The corresponding file name is in parenthesis:

- **TMCE firmware: 1.32.02** (QuantumFMW13202.bin)
- **Xilinx firmware: 1.76** (mcelca0176.bin)
- **Head firmware: 1.03b** (th3fmw103b.bin)
- **Boot Code: 1.09** (MCREBOOT109.BIN)
- **Post Code: 1.05** (mcepost105.BIN)
- **BBR: 1.03** (mcerec100.bin)
- **Pattern Data: 1.01** (mcedata0101.bin) for Spectrum platesetters only.

Information about firmware versions loaded in the TMCE and TH2 can be obtained by typing the following commands in Service Shell:

```
QUANTUM>> fw dir (or: list version all)
QUANTUM>> th2 "ver"
```

After loading the correct firmware versions, the following window is displayed:

```
QUANTUM>>
fw dir
QUANTUM>> fw dir
Name            Version  Start     Scts Length  Checksum Used
--------------- -------  --------  ---- ------- -------- ----
MCE BBR  Code   1.03     00000000     1    6832 Passed      5%
MCE NVS Parms   n/a      00020000     2  262144 n/a       100%
MCE BOOT Code   1.09     00060000     2  108096 Passed     41%
MCE FW Dir      1.00     000A0000     1  131072 n/a       100%
MCE MAIN Code   1.32.02  000C0000    16 1463148 Passed     69%
MCE OVWR Data   n/a      002C0000     2       0 n/a         0%
MCE POST Code   1.05     00300000     2   75294 Passed     28%
MCE Xilinx      1.76     00340000     6  218976 Passed     27%
--------------- -------  --------  ---- ------- -------- ----
Totals:                             32 2265562           54%
*** Command Complete
```

```
QUANTUM>> th2 "ver"
*** Command Complete
TH2 > ver
Project:         Thermal II
Firmware:        1.03b Release
Build:           2353
Date:            Aug 19 2003 14:21:56
Control board:   4
Xilinx:          30
*** Command Success ***
```

# Defining the Drum Speed



**Important:** Set the new drum speed according to the HASP key attached to the platesetter.

**To upgrade the drum speed, do the following:**

1. Open Service Shell.
2. Type the following command for each media defined in Service Shell:
   `Quantum>>`**th2 "set med (X-1) drumspeed Y"**
   `Quantum>>`**media X**

   Where **X** denotes the number in the media table (subtract 1 from this value), and **Y** is the recommended drum speed.

   - S speed: **150 rpm***
   - F speed: **235 rpm***
   - V speed: **375 rpm***

   * Depending on the type and size of media used. See Media Calculator..



**Note:** When a lower value is entered, the platesetter operates correctly; however, entering a higher value will cause a plot to fail.

**Example:**

The following example sets the drum speed for media 1 (Kodak IR) to 235 RPM:

```
Quantum>>th2 "set med 0 drumspeed 235"
Quantum>>media 1
Current Media = 1
==================
```

| | |
|---|---|
| Name | = Kodak IR |
| Color | = |
| Type | = Plate (9) |
| Invert | = 0 |
| Depth | = 0 microns |
| Reflectivity | = 0.084 |
| ExtraScanLines | = 1 |
| DrumPlotSpeed | = 235 rpm |
| TempCoeff | = 0 |
| DebrisOptions | = 1 |

Density = 2750 kg/m^3
Emissions Intensity = 1.000
Pattern Identifier = 0
Flags = 0
Mainscan scale = 0 ppm
Subscan scale = 0 ppm
AirjestMarginHome = 0 um
AirjetMarginAway = 0 um

==========

Available Media

==========

1. Kodak IR

2. Horsell
** Command Complete.

# Specifying the Head Type for Quantum and non Quantum Platesetters

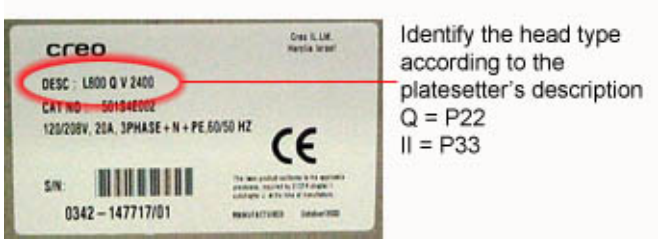
**Important:** The head type must be defined according to the head installed.

**WARNING: Check the head type BEFORE entering the configuration settings. If you enter incorrect settings, the platesetter will not be able to expose any media; you will not be able to re-enter new configurations; and the head will have to be replaced!**

## Identifying the Head Type

Identify the type of head installed on the platesetter before entering the configuration settings.
Located on the rear lower panel of the platesetter is an adhesive label enabling you to identify the type of head installed on the platesetter.
The **DESC** line on the label either contains the letter **Q** or the the Roman numerals **II**:

- **Q** represents Quantum SquareSpot and indicates that a **P22** head is installed on the platesetter.
- **II** represents a Lotem 800 II platesetter and indicates that a **P33** thermal head is installed on the platesetter.



# Defining the Head in the TMCE Board

After the head type has been identified, it is necessary to define the head in the TMCE board.

**To define the head , do the following:**

1. Open Service Shell.
2. Type the following:
   QUANTUM>>**access dev**
   QUANTUM>>**config**
   A list containing all the available Quantum modes and their corresponding codes appears on the monitor.
   QUANTUM>>Config AVerySecretPassword [head type]
   Change the head type as required (a mismatch will cause the exposure to fail):
   - For P22 heads, the head type is **LotQU**.
   - For P33 heads, the head type is **LotII**.

**Note:** The above command is context sensitive; make sure to upper case the relevant letters in the command.

# Defining the Head Model

After the head type has been defined, verify that the information you entered in Service Shell is correct, and if required, define the head model.

**Verifying the head type information:**

To verfiy the head type information, type the following command:

QUANTUM>>**access dev**
QUANTUM>>**ceh head info**
Exposure Head Type = Thermal 2
Firmware Build = Release
Firmware Version = 1.03b
Serial Number = T00531
Head Model = Standard
*** Command Complete

The above output indicates that the **head model** is standard (last line) meaning that it is a **P22** head. For a **P33** head the last line would be:
Head Model = Entry Level

**Defining the head model:**

If the Thermal Head 2 is not defined as P33, type the following command:

TH2>>**sys model p33**
The following screen message will be displayed:

```
WARNING! Configuring a P33 head will degrade plot quality, and
could disable the head. This command must only be run on P33
heads installed on non-Quantum engines.
Proceed with P33 configuration (Y/N)
```

**WARNING: If you type Y (Yes) the action is irreversible.**

Type **Y**
To ensure that the head protocol is set to **True**, type the following:
Quantum>>**set ehi protocol**
The following screen message will be displayed:

```
ehi protocol true
```

To change the status from **False** to **True**, type the following:
Quantum>>**set ehi protocol true**

**Note:** The above actions ensure that the head works correctly.
If the head protocol is not set to true, several scripts will be effected and the head will not work.

**Important:** The P33 head does not support thermal compensation. Therefore, the thermal compensation detector must be bypassed in the TMCE board, otherwise the **AI_Engine Temp** error message will be displayed.
**To bypass the thermal compensation detector:**

1. Type the following in Service Shell:
   Quantum>>**scan groups**
2. Navigate to the line **AI_EngineTemp.** If the letter **b** appears next to this line, then the detector is not bypassed. (The **b** informs the MCE not to bypass the detector.) To overcome this problem, type the following:
   Quantum>>**scan AI_EngineTemp bon**
   Quantum>>**reset**
   Then type Quantum>>**scan groups**.
   The letters **xb** will appear next to the **AI_EngineTemp** line. (The letters **xb** inform the MCE to bypass the detector.)

```
QUANTUM>> scan groups
Group Name              Status Value
DI_Group0                      00000000h
DI_Group1                      00000000h
DI_Group2                      0000F004h
DI_Group3                      00000022h
DI_Group4                      00009D90h
DO_Group0                      00000000h
DO_Group1                      00000000h
DO_Group2                      00000020h
AI_EngineTemp                xb 00000159h
AI_MainBoardTemp              b 000001C5h
```

# Additional Preparations for Spectrums



**Important:** Spectrum platesetters will only expose proofs when the following procedures have been completed.

1. Open Service Shell.
2. Type the following command:
   `Quantum>>`**access dev**
   `Quantum>>`**option**

   **Note:** Ensure that the Spectrum option is enabled

   | | |
   |---|---|
   | EdgeDetect option is | enabled |
   | **Spectrum option is** | **enabled** |
   | Debris UDRCB option is | disabled |
   | Debris UDRCL option is | disabled |

   If the Spectrum option is disabled, type the following command:
   `Quantum>>`**option spectrum enable**
   `Quantum>>`**reset**
3. Type the following command:
   `Quantum>>`**set proof 1 name "proof"**

   **Note:** Implement this command to successfully plot a proof. This command will only work on Spectrum platesetters. An error message will be generated on non-Spectrum platesetters.

# Starting the Software Application

1. Double-click the **Lotem800 - 3.75.09** icon located on the Lotem desktop.
2. Navigate to the following parameter: **HKEY_LOCAL_MACHINE\SOFTWARE\MCKey** and restore the Plate Counter value to the value that you wrote down before upgrading the hardware.
3. Reconfigure the Brisque. Navigate to the Device Handling dialog box. Delete the previous platesetter configuration and create a new one. Restore the Punch System and Press Format settings.
4. Set the platesetter's power series with the new drum speed.
5. Check MCU functionality and ensure that you can operate the cassettes.
6. Plot the same customer file used in step 1 and compare the two plots. If necessary, adjust the image offsets using the following commands:
   `Quantum>>`**set gc sshift**
   `Quantum>>`**set gc mshift**

# Installing 3.75.09 on a Lotem 850

When installing software version 3.75.09 on a Lotem 850 platesetter, the majority of the registry parameters automatically change to accommodate the Lotem 850. However, the following parameters need to be changed manually, (because their default values are set for a Lotem 800 platesetter and not for a Lotem 850 platesetter):

- **Others/Lotem800/Machine/Min media height size (mm)**
  Amend value to: 455
- After the `Quantum` command line type the following:
  **Set Carriage** and amend the **mtravel** value to **1176**
- After the `Quantum` command line type the following:
  **Set Prd** and amend the **Drumdiam** value to **344**
- After the `Quantum` command line type the following:
  **Set Drum** and make the following amendments:
  **MaxAcc** = **7**
  **MaxPacc** = **7**
  **Kt** = **1.6**
  **JI** = **2.3**
- After the `Th2` command line type the following:
  **Set med 0** and amend the **Drumspeed** value to **375**
- After the `Quantum` command line, type the word **Feature**. The following screen message will be displayed:

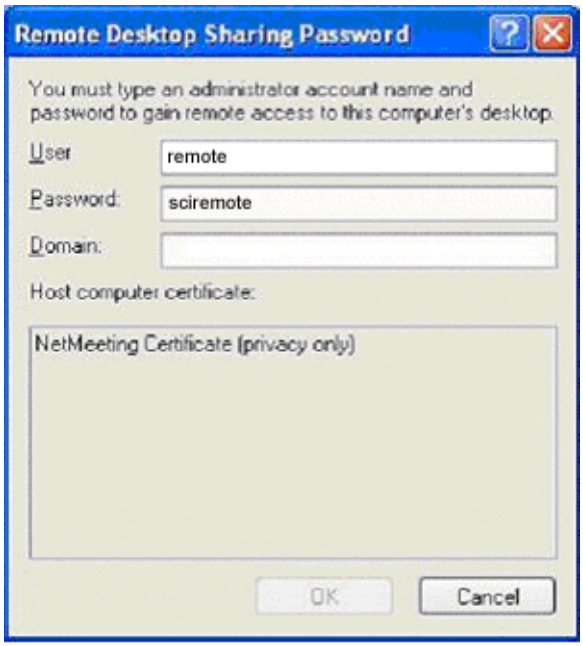
```
Current Model
-------------
Lotem Quantum [LotQU]
Licensable Limits
-------------
Tag Description
1 Maximum plate size in mainscan: 1030 mm [Optional]
2 Minimum plate size in mainscan: 318 mm [Optional]
3 Maximum plate size in subscan: 1150 mm [Optional]
4 Minimum plate size in mainscan: 225 mm [Optional]
```

After the `Quantum` command line is displayed, type the following:
`Quantum>>`**access enable** and click the **Enter** button on the keyboard.
`Quantum>>`**stg delete flash 2404** and click **Enter**.
`Quantum>>`**stg delete flash 2405** and click **Enter**.
`Quantum>>`**stg delete flash 2406** and click **Enter**.
`Quantum>>`**stg delete flash 2407** and click **Enter**.
`Quantum>>`**reset**
`Quantum>>`**access dev**
`Quantum>>`**ConfigAVerySecretPassword [headtype]**
`Quantum>>`**feature creo 3 1160**
`Quantum>>`**reset**

# Remote Support

The remote support ‘one-click activation’ is now working.

Connecting to the Lotem via Net Meeting requires a user name and password. When connecting to Net Meeting from a remote PC, the following dialog box is displayed:




**To access the Lotem:**

- In the **User** field, type `remote`.
- In the **Password** field, type `sciremote`.
- Click **OK**.

# Diagnostics

For a more detailed description of diagnostics, see the Lotem 800 Family Diagnostics Version 3.75.x Release Notes.

After completing the hardware and software installations, shut down the software application and run a full diagnostic check.
To run the check, double-click the **Diagnostics** icon on the Lotem desktop and follow the on screen instructions.