

**Oracle® Hospitality RES 3700**  
Installation Guide  
Release 5.7  
**E95334-04**

September 2020

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Oracle Hospitality RES 3700 Installation Guide Release 5.7

E95334-04

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# Preface

This Installation Guide describes the requirements and procedures to install this Oracle Hospitality RES 3700 (RES) release.

## Audience

This document is intended for:

- Deployment personnel
- Database administrators
- System administrators
- Product support

## Customer Support

To contact Oracle Customer Support, access My Oracle Support at the following URL:

<https://support.oracle.com>

When contacting Customer Support, please provide the following:

- Product version and program/module name
- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received and any associated log files
- Screen shots of each step you take

## Documentation

Oracle Food and Beverage product documentation is available on the Oracle Help Center at <https://docs.oracle.com/en/industries/food-beverage/pos.html>

## Revision History

Date	Description of Change
May 2018	<ul style="list-style-type: none"><li>• Initial publication.</li></ul>
July 2018	<ul style="list-style-type: none"><li>• Updated Chapter 9 - Installing Peripherals, specifically the Installing Fingerprint Scanners section.</li></ul>
October 2018	<ul style="list-style-type: none"><li>• Updated the Installing Internet Information Services (IIS) section to include Microsoft Windows Server 2008 R2, Server 2012 R2, and Server 2016.</li></ul>
September 2020	<ul style="list-style-type: none"><li>• Updated Chapter 9 - Installing Peripherals and added the Configuring Multilingual Printing section.</li></ul>



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# 1 Installing RES 3700

## Installation Roadmap

The following table provides a roadmap for installing RES 3700 (RES).

**Table 1-1 - Roadmap for Installing RES 3700**

Task	Description	Documentation
Verify your system environment	Before beginning the installation, verify that the system environment meets the recommended system and network requirements.	See the <i>Oracle Hospitality RES 3700 5.6 Release Notes</i> .
Understand RES 3700 security	Before beginning the installation, read and understand environment and application security for RES 3700.	See the <i>Oracle Hospitality RES 3700 5.6 Security Guide</i> .
Prerequisites	Before beginning the installation, verify that you have sufficient operational understanding of key concepts and perform the necessary steps to prepare the deployment site for RES installation.	See <a href="#">Installation Prerequisites</a> .
Pre-convert the database	If you are upgrading RES from a version older than 5.x, pre-convert the database for compatibility with RES 5.x.	See <a href="#">Pre-Converting Databases</a> .
Install the RES Prerequisites	You must run the RES Prerequisites installer.	See <a href="#">Installing the RES Prerequisites</a> .
Install RES	You must run the RES Setup installer.	See <a href="#">Installing RES</a> .
Restore a database	If you are upgrading RES, restore the database that you previously pre-converted.	See <a href="#">Restoring Pre-Converted Databases</a> .

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<b>Task</b>	<b>Description</b>	<b>Documentation</b>
Verify server configurations	Make sure the server and database are configured to communicate after restoring a database.	See <a href="#">Verifying Server Configurations After Restoring a Database</a> .
Install or update RES on client workstations	Make sure client CAL is updated and configured properly to communicate with the RES server. When the RES server restarts, the client CAL automatically downloads and installs or upgrades the RES client on each device. If the install or upgrade does not start, reboot the client.	Not applicable.
Configure optional RES settings	You can customize the settings on your system.	See <a href="#">Configuring Optional RES Settings</a> .
Install peripherals	To use peripheral devices with RES, follow the instructions specific to the peripheral you want to install, or refer to the hardware documentation for the peripheral you want to install.	See <a href="#">Installing Peripherals</a> .

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## 2 Installation Prerequisites

This chapter describes the knowledge, actions, and preparation required before beginning RES installation.

### Before Starting

Make sure you have an:

- Operational understanding of PCs and a working knowledge of the Microsoft Windows interface.
- Operational understanding of the Client Application Loader (CAL) technology.
- Understanding of POS terminology and concepts.
- Understanding that:
  - You cannot perform incremental database backup after installing a patch. You must first perform a full database backup under the new patch.
  - You cannot repair or modify installation features due to changes in the setup process. If a problem occurs, you must reinstall RES.
  - RES installation does not support installing to a mapped drive. Make sure to install RES to local drives.

### Configuring a Batch File to Execute Scripts During Patching

If you are installing a maintenance release, you can configure a batch file to execute scripts:

1. Add a registry key under `HKLM\Software\Micros\` and name it **Patch**.
2. Create and set the following two String values for this key:
  - a. **CustomPreUpdate**: the installer runs the file linked through this key at the beginning of the process. You can use this key to shut down non-RES services.
  - b. **CustomPostUpdate**: the installer runs the file linked through this key after updating all files, but before updating the database.

### Setting the User Account Control (UAC) Setting to the Default Level

RES installation requires permissions to add a new user to the Administrator Group. Use the existing administrator account only to create a new user and to add existing users to the Administrator Group.

1. Click **Start**, and then click **Control Panel**.
2. Click **User Accounts**.
3. Select **Change User Account Control Settings**.
4. Make sure the selected setting is **Default**. Otherwise, select **Default**, and then restart the server.

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Keep the server and Microsoft Windows clients at the **Default** UAC setting for daily POS operations.

## Disabling Anti-virus Software

Anti-virus software can obstruct RES installation due to a script locking feature. Disable the anti-virus software or disable the script locking feature.

## Shutting Down the MICROS Portal Services

- If you are performing a RES upgrade on a system with a MICROS Portal installation, shut down the Micros Agent and Micros Watchdog services. If you do not shut down these services, the system may lock up during database conversion.
- If the end users modified Global.css to allow Manager Procedures to support double-byte characters, back up Global.css and then restore the original version of Global.css from the `Micros\common\ManagerProcAsp\` folder. You can copy the modified file back to the directory after installation finishes.

## Clearing Packing Slips and Invoices from the Project Management Queues

If the site uses Project Management (PM) software, reconcile and approve all packing slips and invoices. The system may not properly prevent users from selecting and modifying receipts during a closed period.

## Installing Internet Information Services (IIS)

### On Microsoft Windows 10

1. Click **Start**, click **Control Panel**, and then click **Programs and Features**.
2. Select **Turn Windows features on or off**.
3. Click **Internet Information Services**.
4. Click **Web Management Tools**, and then select **IIS 6 Management Compatibility** and **IIS Management Console**.
5. Click **World Wide Web Services**, and then:
  - a. Click **Application Development Features**, and then select **ASP** and **ASP.NET**.
  - b. Click **Common HTTP Features**, and then select **Default Document**, **HTTP Errors**, and **Static Content**.
  - c. Click **Health and Diagnostic**, and then select **HTTP Logging** and **Request Monitor**.
  - d. Click **Performance Features**, and then select **Static Content Compression**.
6. Click **OK**.

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## On Microsoft Windows 7

1. Click **Start**, click **Control Panel**, and then click **Programs and Features**.
2. Select **Turn Windows features on or off**.
3. Click **Internet Information Services**.
4. Click **Web Management Tools**, and then select **IIS 6 Management Compatibility** and **IIS Management Console**.
5. Click **World Wide Web Services**, and then:
  - a. Click **Application Development Features**, and then select **ASP** and **ASP.NET**.
  - b. Click **Common HTTP Features**, and then select **Default Document**, **HTTP Errors**, and **Static Content**.
  - c. Click **Health and Diagnostic**, and then select **HTTP Logging** and **Request Monitor**.
  - d. Click **Performance Features**, and then select **Static Content Compression**.
6. Click **OK**.

## On Microsoft Windows Server 2008 R2, Server 2012 R2, or Server 2016

1. Click **Start**, click **Administrative Tools**, and then click **Server Manager**.
2. In Server Manager, click **Roles**, and then click **Role Summary**.
3. Click **Add Roles**, and then click **Next**.
4. Click **Web Server (IIS)**, click **Next**, and then click **Next**.
5. Select **Asp.net** and **Asp**.
6. Click **Add required role services**.
7. Under **Health and Diagnostics**, select **HTTP Logging** and **Request Monitor**.
8. Select **IIS Management Console** and **IIS 6 Management compatibility**.
9. Click **Next**, and then click **Install**.

## Enabling Firewalls

Enable firewalls before installing RES on a server or Win32 client. If you disable firewalls during installation, the installers do not recognize the firewalls and automatically create the necessary exceptions. See "Updating the exceptions list for firewalls" for adding exceptions after installation finishes.

## Backing Up Your OCBServer.ini File

The RES installer overwrites the existing `\Scripts\OCBServer.ini` file. Back up `OCBServer.ini` before upgrading or patching RES.

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## Backing Up Your Web.config Files

The RES installer overwrites the `Web.config` files in the following folders:

- `\MICROS\common\ManagerProcsASP\`
- `\MICROS\common\ManagerProcsFujitsu\`
- `\MICROS\common\ManagerProcsPPC\`
- `\MICROS\common\MenuBoard\`
- `\MICROS\common\ReportViewer\`
- `\MICROS\common\ResPosApiWeb\`

Back up the `Web.config` files before upgrading or patching RES. You can replace the files with the modified versions after installation finishes.

## Modifying AppStarter.cfg

If you are upgrading and you had previously configured the `AppStarter.cfg` files, you must perform the following steps before beginning the upgrade to allow client initialization:

1. Open `Installation Path\CAL\Files\AppStarter.cfg` in an editor.
2. Look for the following lines:  

```
//Wait for MDSHosts.xml  
$(MICROS_DIR_COMMON_BIN)\WaitForHostsFile.exe,, Wait for  
MDSHosts File, -1
```
3. Add the following lines:  

```
// Run Client Trust Utility  
$(MICROS_DIR_COMMON_BIN)\CTUtil.exe,, Client Trust Utility,  
-1
```

## Upgrading the Existing Database on a Lab System

Sybase 16 cannot handle certain conversions due to custom tables, triggers, stored procedures, and so on. Make sure to upgrade the existing database before performing installation at a live site to make sure the upgrade succeeds.

## Configuring the Server and Clients to Avoid Automatically Powering Off

1. Click **Start**, click **Control Panel**, click **System**, and then click **Device Manager**.
2. Right-click the network card, and then select **Properties**.
3. On the **Power Management** tab, deselect **Allow the computer to turn off this device to save power**.
4. Click **Start**, click **Control Panel**, and then click **Power Options**.
5. Select **Change when the computer sleeps**.
6. Set **Put the computer to sleep** to **Never**.

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## Configuring the Binding Order of the MICROS RES Network Adaptor on Servers with Dual NIC Cards

1. Click **Start**, click **Control Panel**, click **Network and Sharing Center**, and then click **Change Adapter Settings**.
2. Press **ALT**, click **Advanced**, and then click **Advanced Settings**.
3. On the **Adapters and Bindings** tab, select the **MICROS RES Network Adaptor**, and then use the arrow buttons to move it to the top of the list.

### Final checks and reminders

- You cannot perform incremental database backup after installing a patch and before performing a full database backup under the new patch.
- You cannot repair or modify installation features due to changes in the setup process. You must reinstall RES to repair problems.

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## 3 Pre-Converting Databases

If you are upgrading from a RES version older than 5.0, you must pre-convert the database to be compatible with the RES 5.0 database. Note that a database that has been pre-converted to 5.x does not work with earlier versions of RES. Make sure to create a backup copy of the database before you pre-convert the database.

### Pre-Converting Databases from RES 3.1 or Earlier

You cannot pre-convert and upgrade databases from RES 3.1 or earlier directly to RES 5.x. Upgrade and convert older databases to RES 3.2 or a compatible version of RES 4.x, then pre-convert the database to RES 5.x.

### Pre-Converting Database from RES 3.2

1. Copy `PreConvert32DB.bat` from `\support\` to a temporary folder.
2. In the MICROS Control Panel, set **Restaurant** to **OFF**.
3. Double-click `PreConvert32DB.bat`.
4. Rename `Micros.DB` to `PreConverted32.DB` and copy it to the RES 3700 5.x server.

### Pre-Converting Databases from RES 4.x

You can convert the following RES 4.x databases to RES 5.x. If you are using a version that is not on the following list, upgrade to a compatible version before pre-converting the database:

- 4.9 and 4.9 MR1
- 4.8 and 4.8 MR1 through MR5
- 4.7 and 4.7 MR1 through MR3
- 4.6 and 4.6 MR1
- 4.5 and 4.5 MR1
- 4.4
- 4.3 HF1 and HF2 (HF1 is the oldest hotfix database that can be upgraded. 4.3 MR3 cannot be upgraded to 5.x.)

To pre-convert the database, follow these steps:

1. Make sure the 4.x database is running.
2. Copy `4xPreConvertTo5x.mcs` from `\support\` to a temporary folder.
3. Open Database Manager with a user count that has database rebuild privileges.
4. In Database Manager, navigate to **Rebuild**.
5. On the **Update** tab, click the folder icon below **Apply Scripts**.
6. Navigate to the temporary folder and select the copy of `4xPreConvertTo5x.mcs`.
7. Click **Apply Scripts**.
8. On the **Backup Database** tab, select **Backup Database**.



- 
9. Click **Run**.
  10. Rename `\Database\Data\Backup\Archive\4x.MBZ` to `PreConverted4x.MBZ` and copy it to the RES 5.x server.

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## 4 Installing the RES Prerequisites

You must run the RES Prerequisites installer before running RES Setup.

1. Stop RES:
  - a. In the MICROS Control Panel, set **Restaurant** to OFF.
  - b. Make sure all hard drive clients are in a closed system state.
  - c. Close all applications, including the MICROS Control Panel.
  - d. If you modified any core RES files, make sure to create a backup and replace them with the original files before proceeding. While modified files do not stop the patching process, the installer may skip the update process on modified files. You can replace the files with the backed up copy after the update finishes.
2. Double-click MICROS RES 5.x Prerequisites.exe to allow it to automatically extract the executables and to automatically launch the installation wizard.
3. Follow the instructions and click **Install** to begin installing or updating the Prerequisite applications.
4. When prompted, click **Finish** to complete installation.
5. If you upgraded from the RES 5.0 Prerequisite, do not uninstall the RES 5.0 Prerequisite installation from the Microsoft Windows Control Panel.

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## 5 Installing RES

1. Download and then double-click `setup.exe`.
2. If Microsoft Windows prompts you about allowing changes to the computer, click **Yes**.
3. On the welcome page, click **Next**.
4. On the License Agreement page, read, accept or refuse the terms of the license agreement, and then click **Next**.
5. On the install path page, click **Browse** to specify a different install location, and then click **Next**. You must install the MICROS files in the root folder of a local drive.
6. On the setup type page, select whether you want to install a new database or whether you want to use an existing database, and then click **Next**.
  - a. If you select to install a shell database, select the type of shell depending on the currency being used. For example, the US dollar uses two decimal spaces and the Russian ruble uses three decimal spaces.
  - b. If you select to use an existing database, select whether you want to the installer to restore a pre-converted database or whether you will perform restoration after installation. Use the `.MBZ5` file produced during pre-conversion.
7. Review the installation summary, and then click **Next**.
8. When beginning database upgrade, enter a Client Trust Passphrase when prompted by the Database Manager.
9. Reboot the system when prompted by the installer.
10. When installing RES 5.5.2 or later, if there is no Client Trust Passphrase configured, the installer creates and assigns a random passphrase.
11. When the Client Application Loader completes installing or upgrading RES on the client workstations, the AppStarter prompts you to enter the Client Trust Passphrase. You can enter the Client Trust Passphrase at each client, or place the system in Discovery Mode to allow configured clients to automatically retrieve and use the Client Trust Passphrase. You can place the system in Discovery Mode using the following methods:
  - a. For RES 5.5.2 and later, you can set a duration for Discovery mode by entering the following in a command line prompt:

```
DM -DS duration_minutes -UID username -PWD password
```

You cannot set the duration of discovery mode to be longer than 60 minutes.  
Enter the credentials for a database DBA or for a RES user with sufficient privileges to change encryption keys.
  - b. Enter the Client Trust Passphrase for a client, and then reboot the client. After POS Operations starts, click **Yes** when it prompts, `Do you want to put the system in auto discovery mode?`.

- 
- c. Launch **Database Manager**, click **Encryption Keys**, click **Activate Discovery Mode**, and then click **Yes** when it prompts, This will activate discovery mode. Do you wish to continue?
  12. Review the *Oracle Hospitality RES 3700 Security Guide* for information and instructions regarding post-installation security.

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## 6 Activating RES Features

After installation, you must activate RES features before usage.

1. Launch the License Manager.
2. For each Installed Product (POS 3700, Kitchen Display System, RES Platform, Enterprise Office, Enterprise Management, Guest Services Solution), select the product tab.
3. Select the **Product/Features** tab under the **Activation** group.
4. Select all **Product Activation** items.
5. Select the purchased features in the **Feature Activation** group.
6. Click **Reload**.
7. Verify the selected features show a check mark under the product tab.

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## 7 Restoring Pre-Converted Databases

This chapter describes how to restore a pre-converted RES database to RES 5.x after RES is installed on the deployment site. Use these instructions if you chose not to convert the database during installation or if you need to restore a database at any point after RES is operational.

### Restoring RES 3.2 Databases

You can only restore a 3.2 database using the command line.

1. Copy `PreConverted32.DB` to your RES server.
2. In the MICROS Control panel, set **Restaurant** to **OFF**.
3. Navigate to `\Micros\Database\Data\` and create a backup of `micros.db` and `micros.log`. The restoration process deletes these files.
4. In a command line interface, enter:  
`DM -u "PathToPreConverted32.DB"`  
For example:  
`DM -u "D:\My DBs\PreConverted32.DB"`
5. Change the encryption keys, DBA passwords, and Micros passwords. The server and database uses the default encryption keys and passwords after restoring the database.

### Restoring 4.x Databases

You can only restore a 4.x database from a complete `Micros.MBZ` and by using the command line.

To restore a 4.x database, follow these steps:

1. Copy `PreConverted4x.MBZ` to your RES server.
2. In the MICROS Control Panel, set **Restaurant** to **OFF**.
3. Navigate to `\Micros\Database\Data\` and create a backup of `micros.db` and `micros.log`. The restoration process deletes these files.
4. In a command line interface, enter:  
`DM -u "PathToPreConverted4x.MBZ"`  
For example:  
`DM -u "D:\My DBs\PreConverted4x.MBZ"`

The server and restored database uses the encryption keys and passwords stored in `4x.MBZ`.

### Restoring 5.x Databases

You can restore a `RES5x.MBZ5G3` database using either the Database Manager GUI or the command line. If you restore the database using the Database Manager GUI, the process saves a copy of the existing database as `\Micros\Database\Data\Replaced.mbz5g3`. If you restore the database using the command line, the process deletes any existing `micros.db` and `micros.log` in the `\Micros\Database\Data\` folder.

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## Verifying Server Configurations After Restoring a Database

You must verify server configurations whenever you restore the database.

1. Open the MICROS Control Panel and set **Restaurant** to **Database**.
2. In the POS Configurator, and click **Devices**, and then click **Network Node**.
3. Enter the **Computer Name**, **IP Address**, **Subnet Mask**, and **Workstation Type** for all nodes, especially the Server.
4. Click **Update Host File**.
  - a. If the server prompts you for administrator permission for allowing changes, click **Allow changes**.
  - b. Enter the administrator password if required.
5. In the MICROS Control Panel, select **Restaurant**, and then click **Reload DB**.
6. After the status icons become green check marks, set **Restaurant** to **OFF**.
7. Restart the server.

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## 8 Configuring Optional RES Settings

### Using Custom Logos

You can configure the logo shown in RES by changing `res3700.bmp`.

1. To change the logo on the RES Server, place the modified `res3700.bmp` file in the `\MICROS\Res\POS\Bitmaps\` folder.
2. To change the logo on the respective clients, place the modified `res3700.bmp` file in the `\Files\CF\MICROS\Bitmaps\` folder for each client. See Client CAL Folders for a list of the root folders for each client.
3. Wait 30 seconds for the file to transfer from the server to the client.
4. Reboot the client.

### Using Custom Icons

You can configure custom icons for hard drive clients by editing `customicons.dll`.

1. Place the modified `customicons.dll` file in the `\Files\CF\MICROS\Bin\` folder for each client. See Client CAL Folders for a list of the root folders for each client.
2. Wait 30 seconds for the file to transfer from the server to the client.
3. Reboot the client.

### Using Custom Display Configurations

You can configure the OPS display by editing `OPSDisplayUser.cfg`.

1. To change the display on the RES Server, place the modified `OPSDisplayUser.cfg` file in the `\MICROS\Res\POS\etc\` folder.
2. To change the display on the respective clients, place the modified `OPSDisplayUser.cfg` file in the `\Files\CF\MICROS\etc\` folder for each client. See Client CAL Folders for a list of the root folders for each client.
3. Wait 30 seconds for the file to transfer from the server to the client.
4. Reboot the client.

### Using Custom Scripts

1. To install the scripts on the RES Server, place the script files in the `\MICROS\Res\POS\Scripts\` folder.
2. To install the scripts on the respective clients, place the script files in the `\Files\CF\MICROS\Scripts\` folder for each client. See Client CAL Folders for a list of the root folders for each client.
3. Wait 30 seconds for the file to transfer from the server to the client.
4. Reboot the client.



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## Using SIM Scripts

1. On the RES Server, place the script files in the \MICROS\Res\POS\etc\ folder.
2. In the POS Configurator, click the **Devices** tab, click **ISL Files**, and then click **Auto Load All ISL Files**.
3. Verify that the POS Configurator imported all ISL files.
  - a. To import a single script, click **New**, and then click the **Browse** button to select the .ISL file.
  - b. To change the file for an existing database entry, select an entry, click the **Browse** button next to the **File Name** field, and then select the new script.
4. Wait 30 seconds for the file to transfer from the server to the client.
5. Reboot the client.

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## 9 Installing Peripherals

### Configuring Multilingual Printing

RES supports multilingual printing, however you can only set the application to print in English and one additional language at a time. The Intelligent Device Network (IDN), Ethernet, and Serial RS-232 networking and connection technologies are supported. The default printer language must be changed via the front panel on the TM-T88VI printer.



#### NOTE:

A known printout alignment issue exists with RES and multilingual printing with the Serial RS-232 interface. A DLL translation file is required and currently only supports the Japanese language.

To change the default printer language:

1. Change the language for non-Unicode programs on the application server in the Control Panel's Region settings.

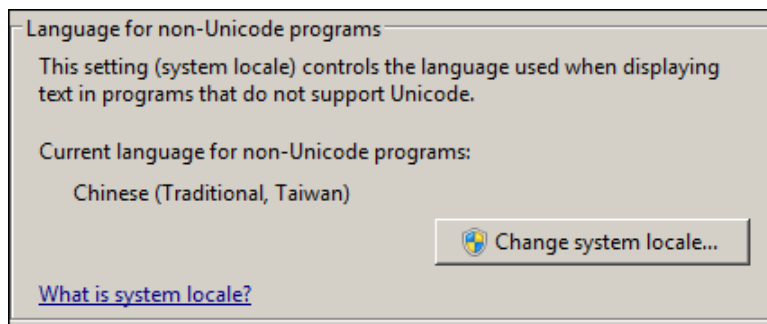


Figure 9-1 - Region (system locale) Setting

For example, if you need to print in Traditional Chinese, you need to change the default setting to Chinese (Traditional, Taiwan).

2. Change the default TM-T88VI printer language from Thai, Vietnam to the language you want to print.

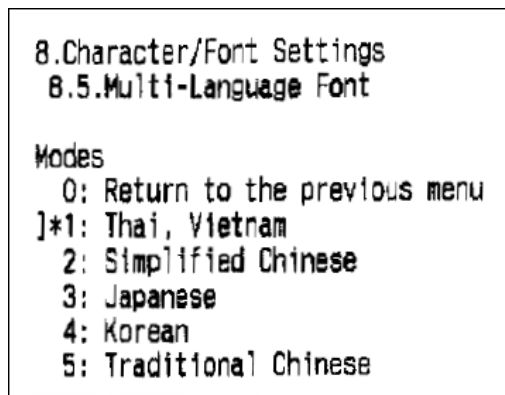
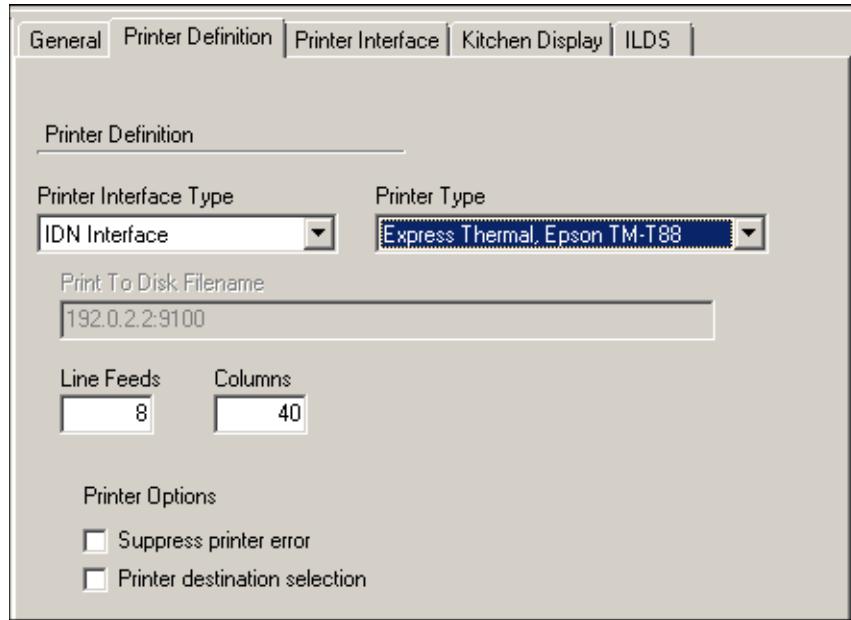


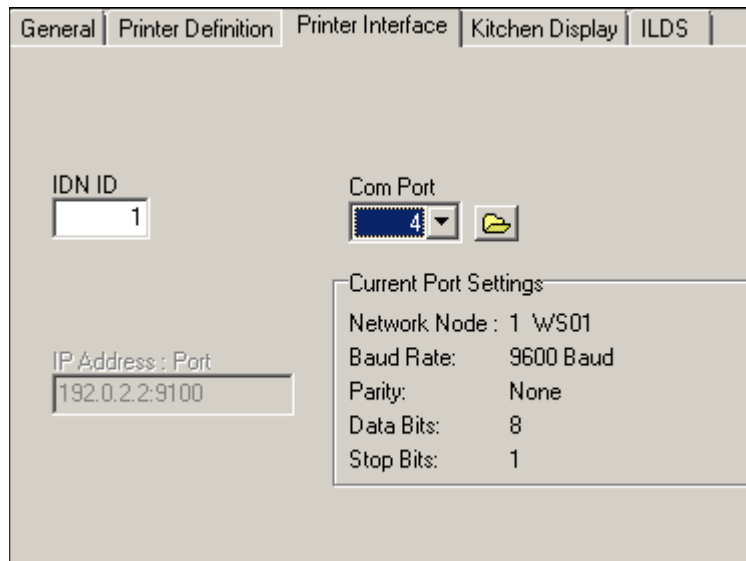
Figure 9-2 - Changing the Default TM-T88VI Printer Language

3. Configure the printer in the RES POS Configurator in the **Devices** module as shown below. For an IDN connection:
  - a. Select the **Printer Definition** tab.
  - b. For the **Printer Interface Type**, select **IDN Interface** from the drop-down list.
  - c. For the **Printer Type**, select the **Express Thermal, Epson TM-T88** printer from the drop-down list. Configure the balance of the settings.



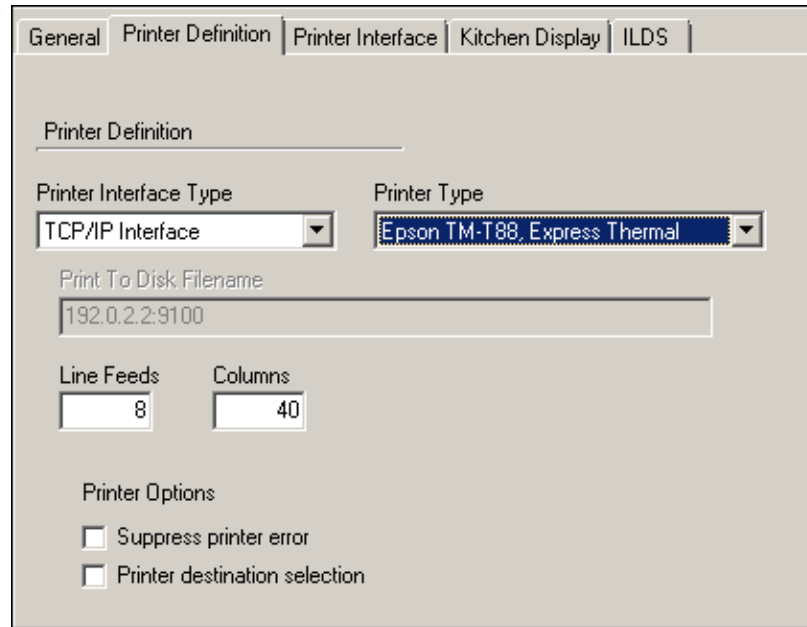
**Figure 9-3 - POS Configurator Devices Module - IDN Printer Definition Tab**

- d. Select the **Printer Interface** tab, assign an IDN ID, and then select the desired **Com Port** setting from the drop-down list.



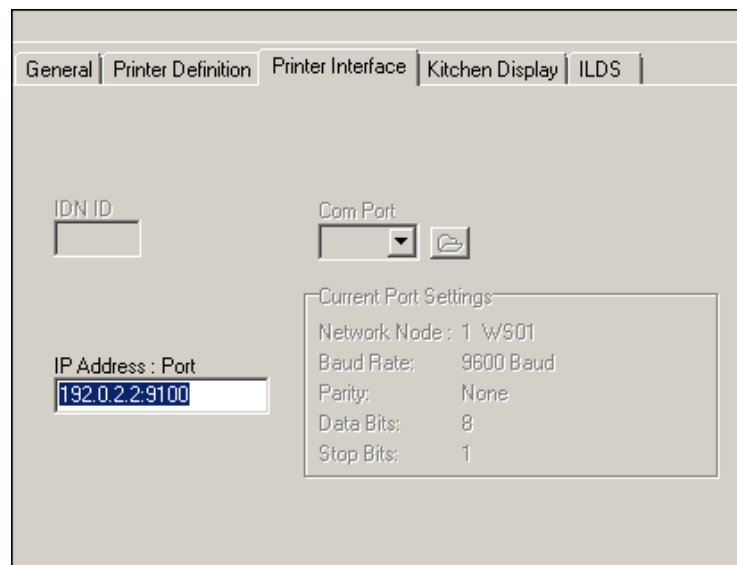
**Figure 9-4 - POS Configurator Devices Module - IDN Printer Interface Tab**

4. For a TCP/IP (Ethernet) connection:
  - a. Select the **Printer Definition** tab.
  - b. For the **Printer Interface Type**, select **TCP/IP Interface** from the drop-down list.
  - c. For the **Printer Type**, select the **Epson TM-T88, Express Thermal** printer (the TM-T88VI printer has a built-in Ethernet port) from the drop-down list. Configure the balance of the settings.



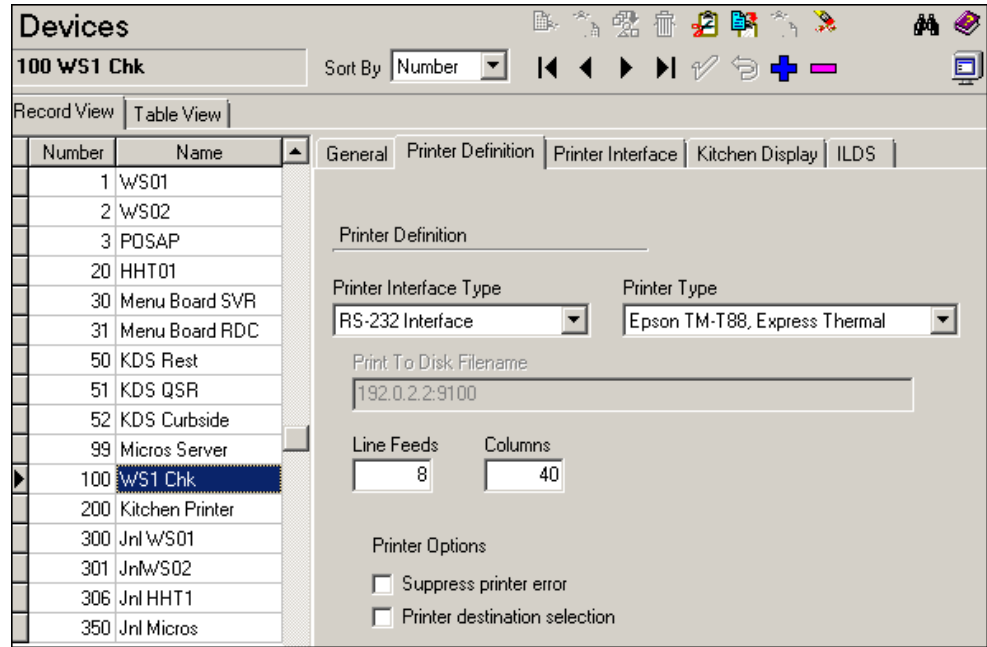
**Figure 9-5 - POS Configurator Devices Module - TCP/IP Printer Definition Tab**

- d. You must determine and assign an appropriate IP Address. The example figure below shows the IP address as 192.0.2.2. The Port number is always 9100.



**Figure 9-6 - POS Configurator Devices Module - TCP/IP Printer Interface Tab**

5. For a Serial RS-232 connection:
  - a. Select the **Printer Definition** tab.
  - b. For the **Printer Interface Type**, select **RS-232 Interface** from the drop-down list.
  - c. For the **Printer Type**, select the **Epson TM-T88, Express Thermal** printer. Configure the balance of the settings.



**Figure 9-7 - POS Configurator Devices Module - RS-232 Serial Printer Definition Tab**

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## Installing the Rochelle Box

Before beginning installation, make sure your phone line is split so that one part goes to the phone and one part goes to the Rochelle box.

### Installing Rochelle Model 2045

1. Click **Start**, click **Run**, enter **regedit**, and then click **Run**.
2. Navigate to My  
Computer\HKEY\_LOCAL\_MACHINE\Software\Micros\GSS\CallerID\Rochelle\Parameters\
3. Create a String key and name it **ComPort**.
4. Set the value of **ComPort** to the COM port number you want the box to use.
5. Attach the Rochelle box to the specified COM port on the server machine.
6. Click **Start**, click **Control Panel**, and then click **Administrative Services**.
7. Double-click **Services**, scroll to **MICROS Caller ID Service**, and then start the service.

### Installing Rochelle Model 2050

1. Click **Start**, click **Run**, enter **regedit**, and then click **Run**.
2. Navigate to My  
Computer\HKEY\_LOCAL\_MACHINE\Software\Micros\GSS\CallerID\Rochelle\
3. Create a String key and name it **NumDevices**.
4. Set the value of **NumDevices** to **1**.
5. Navigate to My  
Computer\HKEY\_LOCAL\_MACHINE\Software\Micros\GSS\CallerID\Rochelle\Parameters\
6. Create and set the value of the following String keys:
  - a. ComPort = *COMPortNumber*
  - b. ComParameters = [2400 for baud | N for parity | 8 for data | 1 for stop]
  - c. IniString = A\_F0\r\nAT\_R0\0\r\n
  - d. DeviceLines = 4
7. If you want to attach additional devices, use the registry path My  
Computer\HKEY\_LOCAL\_MACHINE\Software\Micros\GSS\CallerID\Rochelle\ParametersNumber  
For example, **\Parameters2**
8. Attach the Rochelle box to the specified COM port on the server machine.
9. Click **Start**, click **Control Panel**, and then click **Administrative Services**.
10. Double-click **Services**, scroll to **MICROS Caller ID Service**, and then start the service.

---

## Running a Rochelle Box in Demo Mode

1. Click **Start**, click **Run**, enter **regedit**, and then click **Run**.
2. Navigate to My Computer\HKEY\_LOCAL\_MACHINE\Software\Micros\GSS\CallerID\Rochelle\Parameters\
  - 3. Create a String key and name it **ComPort**.
  - 4. Set the value of **ComPort** to the COM port number you want to use.
  - 5. Attach a null modem cable from the specified COM port to another COM port on the server.
6. Start the **Rochelle Emulator**.
7. Click **Start**, click **Control Panel**, and then click **Administrative Services**.
8. Double-click **Services**, scroll to **MICROS Caller ID Service**, and then start the service.

## Installing Order Confirmation Boards (OCB)

The 3700 POS Interface supports the following Order Confirmation Board (OCB) devices:

- Texas Digital AccuView OCB
- Texas Digital Wenview OCB
- MICROS OCB

### Setting Up the OCB Server

1. Create a copy of \micros\res\pos\scripts\OCBServer.template.ini and rename it to OCBServer.ini.
2. Configure the parameters in OCBServer.ini as described in the following table:

**Table 9-1 - OCBServer.ini Parameters**

Parameter	Description
DeviceType	0 = None 1 = Texas Digital AccuVIEW 2 = Texas Digital WenVIEW 3 = Texas Digital AccuVIEW CE 4 = Everbrite SNS OCS 5 = MICROS OCB and Drive-Thru Display Controller
ConnectType	1 = COM Port 2 = TCP/IP (MICROS OCB only)
ComPort	1 = COM1 2 = COM2 Etc.

---

Parameter	Description
BaudRate	<p>1 = 1200</p> <p>2 = 9600</p> <p>3 = 19200 (suggested Baud Rate for AccuVIEW OCB)</p> <p>4 = 38400</p> <p>5 = 57600</p> <p>6 = 115200</p> <p>If the site encounters display issues, set the Baud Rate to 3.</p>
IpAddress	<p>MICROS OCB only.</p> <p>Set the IP Address [ipaddr:port] of the OCB device. The port value can be found in the OCB.ini file as the value of the <b>Listen Port</b> parameter. By default, use 13001.</p>
TotalLabel	Label shown at the bottom of the OCB display immediately before the total due value.
TaxLabel	Label shown at the bottom of the OCB display immediately before the tax value.
TotalScreenLine1	The first line of text shown on the total screen shown by the OCB after an order is complete and the after service totaling or final tendering the associated check on the POS.
TotalScreenLine2	The second line of text shown on the total screen.
Line1, Line2, etc.	Each line of text of the default Message shown on WenView OCB devices. The devices show the text when the OCB is idle.
ScrollText1, ScrollText2, etc.	Each line of text of the scrolling message shown at the bottom of the OCB display. AccuVIEW devices show an unlimited amount of scroll messages, while WenVIEW devices show one scroll message.
DisplayMenuItems, DisplayDiscounts, DisplayTenders, DisplayServiceCharges	<p>Determines whether to show the specified detailed type.</p> <p>0 = Do not display.</p> <p>1 = Display.</p>

---



Parameter	Description
DisplayVoids	OCBServer does not support this parameter. If the parameter is set to 1, OCB logs a message to indicate the option is not supported. OCB always shows direct voids.
DisplayMenuLevelPrefix	Determines whether to show the menu level prefix. You must configure a menu item to show a menu level prefix using the <b>Menu level name</b> class option to use this parameter. OCB selects the main or sub level prefix based on the <b>Use sub menu level for pricing</b> level class option.
DisplayMenuItemDefaults	Determines whether to show default condiments in Conversational Ordering Mode. 0 = Do not display. 1 = Display.
DisplayTaxAndTotalLine	Determines whether to show a running tax and total line at the bottom of the OCB while taking an order. 0 = Do not display. 1 = Display.
DisplayTotalScreen	Determines whether to show the total screen after completing an order and service totaling or final tendering the associated check on the POS. If the value is set to 0, the OCB skips the total screen and shows the default menu screen (WenVIEW) or slide show (AccuVIEW). 0 = Do not display. 1 = Display.
DisplayAllCondimentQty	Determines whether to show the condiment quantity even for single items. You must include this feature during installation. 0 = Do not display. 1 = Display.
CurrencySymbol	Define the currency symbol shown with the total value due on the total screen. By default, the value is set to \$.

3. Create a copy of `\micros\res\pos\scripts\OCBClient.template.ini` and rename it to `OCBClient.ini`.

4. Copy `OCBClient.ini` to the respective folder from the following list for client types that send information to the OCB:
  - `\micros\res\cal\win32\files\micros\res\pos\scripts\`
  - `\micros\res\cal\ws4LX\files\cf\micros\scripts\`
  - `\micros\res\cal\ws5\files\cf\micros\scripts\`
  - `\micros\res\cal\ws5A\files\cf\micros\scripts\`
5. Configure each copy of `OCBClient.ini` as described in the following table:

**Table 9-2 - OCBClient.ini Parameters**

Parameter	Description
ServerIP	Define the IP address of the server hosting the OCB service. In most cases, set this parameter to the IP address of the 3700 RES server.
OCBToClaimOnStartup	Define the OCB device to claim on startup. 0 = Do not claim any device on startup. 1 = Claim OCB device 1 on startup. 2 = Claim OCB device 2 on startup. When using the new MICROS OCB, use 0.

6. In the POS Configurator, click **Devices**, and then click **Interfaces**.
7. Add or change the name of a record to OCB.
  - a. Set the **Outgoing message name** to OCB.
  - b. Select **SIM Interface**.
8. Create a copy of `\micros\res\pos\scripts\OCBClient.isl` and rename it to `PMSNumber.isl`. For example, if you changed record 3 to OCB in the POS Configurator, rename `OCBClient.isl` to `PMS3.isl`.
9. Copy `PMSNumber.isl` to the respective folder from the following list for client types that send information to the OCB:
  - `\micros\res\cal\win32\files\micros\res\pos\etc\`
  - `\micros\res\cal\ws4LX\files\cf\micros\etc\`
  - `\micros\res\cal\ws5\files\cf\micros\etc\`
  - `\micros\res\cal\ws5A\files\cf\micros\etc\`

You can add buttons for handling OCBs in POS Configurator touchscreen designer.

1. Set the **Category** to SIM/PMS Inquire.
2. Set the **Interface** to 1 OCB.
3. Set the **Inquire Number** to one of the following:
  - 1 = Start the OCB.
  - 2 = Stop the OCB.
  - 3 = Claim OCB device 1.
  - 4 = Claim OCB device 2.
  - 5 = Temporarily claim OCB device 1.
  - 6 = Temporarily claim OCB device 2.
  - 7 = Release OCB device 1.
  - 8 = Release OCB device 2.
  - 9 = Set the send flag.

---

10 = Release the current OCB device.

99 = Receive OCB information.

You can verify OCB service installation and configuration:

1. Click to **Start**, click **Control Panel**, click **Administrative Tools**, and then double-click **Services**.
2. Select **MICROS OCB Server**.
3. Set the **Startup Type** to Automatic.
4. Click **Start Service**. Restart the server if it is already running.
5. Fix the OCBServer.ini configurations if you see an error message. Two common error messages are:
  - a) The data is Invalid: Check the OCBServer.ini for invalid configurations.
  - b) The system cannot find the file specified: The OCBServer.ini file is missing or in the wrong location.

## Configuring the MICROS OCB Drive Thru Display Controller

1. Add a network node:
  - a. In the POS Configurator, click **Devices**, and then click **Network Node**.
  - b. Click **Add a record**.
  - c. Fill out the **Network** tab and select Order Confirmation as the **Workstation Type**.
  - d. Click **Save**.
2. Set up the server:
  - a. In the POS Configurator, click **Devices**, and then click **Network Node**.
  - b. Click **Add a record**.
  - c. Fill out the **Network** tab and select Workstation as the **Workstation Type**.
  - d. Configure the **Com Ports** tab.
  - e. Click **Save** and close the form.
  - f. In the POS Configurator, click **Devices**, and then click **Devices**.
  - g. Click **Add a record**.
  - h. On the **General** tab, select Drive-Thru Display Controller for the **Device Type** and the record added in steps b through e for the **Network Node**.
  - i. Click **Save**.
3. Configure the MICROS OCB device:
  - a. Edit  
    \micros\res\CAL\OrderConfirmation\Packages\OrderConf\  
    Micros\EC\OCB.ini
  - b. Copy the edited OCB.ini to  
    \micros\res\CAL\OrderConfirmation\Files\CF\Micros\ETC  
    \
4. Configure the Drive-Thru Display:
  - a. Edit  
    \MICROS\Res\CAL\Win32\Packages\Win32RES\Micros\Common  
    \Etc\OCB32.ini
  - b. Copy the edited OCB32.ini to  
    \MICROS\Res\CAL\Win32\Files\Micros\Common\Etc\

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## Configuring an OCB After Updating a Database

1. In the POS Configurator, click **Devices**, and then click **Network Node**.
2. Click **Add node** and fill out the fields as described in the following table:

**Table 9-3 - OCB network Node Configuration**

Field	Description
Node number	Change to 301.
Name	OCB Unit
Computer Name	OCB
IP Address	Example: 192.0.2.2
Subnet Mask	255.255.255.0
Workstation Type	zzz-Order Confirmation

3. Restart the OCB device and configure CAL.
4. Restart the **Micros OCB Server** service.

## Verifying an OCB installation

1. Navigate to CAL\OrderConfirmation\Files\CF\Micros\Etc\OCB.ini
2. Find the following lines:  
[Logging]  
; Verbosity = 0
3. Remove the ; and change the value to 6.
4. In the OCB log you should see the following:  
*date and time* | OCU | OCB | 0 | [TCP] Disconnecting |  
*date and time* | OCU | OCB | 0 | [TCP] Receive thread exits |  
*date and time* | OCU | OCB | 0 | [TCP] Listener thread starts |  
*date and time* | OCU | OCB | 0 | [TCP] Waiting for a connection... |  
*date and time* | OCU | OCB | 0 | [OCB] showTotalScreen begins |  
*date and time* | OCU | OCB | 0 | [OCB] showTotalScreen ends |

## Deleting Interface Files for an Unused OCB Server

RES shows errors when it tries to connect to an OCB device that is not connected to the system. You must delete the *PMSNumber.isl* files that you do not use from the \micros\res\pos\etc\ folder.

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## Installing Fingerprint Scanners

RES supports finger print scanners as peripherals for the following workstation operating systems:

- Microsoft Windows POSReady 2009
- Microsoft Windows 7 (32-bit)
- Microsoft Windows (64-bit) operating systems

### Installing the DigitalPersona Driver

Install the DigitalPersona driver before connecting the Finger Print Scanner. If you connected the finger print scanner prior to installing the driver, you must remove the default driver.

1. In the POS Configurator, click **Devices**, click **User Workstations**, click **Peripherals**, and then configure a finger print scanner.
2. In MICROS Control Panel, set **Restaurant** to OFF.
3. On your Microsoft Windows operating system, navigate to `\Micros\DigitalPersona\`
  - On Microsoft Windows 7 (32-bit), right-click Setup.exe and select **Run as administrator**.
  - On a Win32 client or server, right-click InstallOnly.bat and select **Run as administrator**.
4. Follow the on-screen instructions. When prompted for a key, click **Default Key**.
5. Restart the server when prompted.
6. Connect the finger print scanner to the client.
7. Start RES.

### Installing the DigitalPersona SDK on Win32 Workstations

1. On each Win32 workstation, install the DigitalPersona SDK package using the included installer:  
`C:\Micros\DigitalPersona\Win32 or Win64\U.are.U_RTE\Setup.exe.`
2. If you are using the Eikon fingerprint reader, install the TouchChip add-on using the included installer:  
`C:\Micros\DigitalPersona\Win32 or Win64\TouchChipAddOn\Setup.msi`

The workstation prompts users to enroll their fingerprints before they can log in using the fingerprint reader.

### Troubleshooting a USB Device Error

The most common cause for this error is that the DigitalPersona driver has been loaded by both an earlier version of RES and by the platform.

1. Stop CAL on the client.
2. Delete Platform.dat from DOC.
3. Format the CF with CFW.exe.
4. Load the latest platform on the server.
5. Reconfigure CAL on the client to point to the server.
6. Start POS Operations on the client.

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7. Plug in the finger print scanner.

### **Deleting the Default Fingerprint Scanner Driver**

1. Disconnect the finger print scanner.
2. Click **Start**, click **Control Panel**, and then click **Device Manager**.
3. Right-click **U.R.U. @4000B Finger Print reader**, and then select **Delete**.
4. Install the DigitalPersona driver.

## **Setting Up Encrypted Magnetic Card Mode (EMSR) using MagTek IPAD Reader**

Encrypted Magnetic Card Mode (EMSR) uses TransactionShield to eliminate cardholder data at the customer system level and to encrypt data as the card is swiped through the external MagTek IPAD device. EMSR stores the data in a secure, hosted location using a MerchantLink transmission. This feature uses cloud-based decryption and ensures that the merchant no longer has decrypted data on the site.

### **EMSR Compatibility**

EMSR is compatible with Win32 and WinCE workstations. It is not compatible with Windows Mobile clients. If you are using a Windows 7 workstation with RES 5.4 MR1, you must manually reboot the client after changing the EMSR mode setting.

EMSR does not support the following transactions:

- COM API
- Web API
- Debit

To determine whether a WS5A or 2015 client has an integrated magnetic stripe reader that supports encryption, make sure the client serial number is greater than or equal to the following:

- WS5a = 2167105845
- PCWS2015 = 2166004747

If you are enabling EMSR, make sure none of the following PINPad Payment devices are configured under any clients in the POS Configurator:

- PINpad
- Mx870 Terminal
- ViVOPay
- ViVOPay 4800

You can configure Protégé to run on a client without IPAD, but you must configure Protégé to be a cash-only terminal, as it will not accept electronic payments with EMSR enabled.

### **Enabling EMSR**

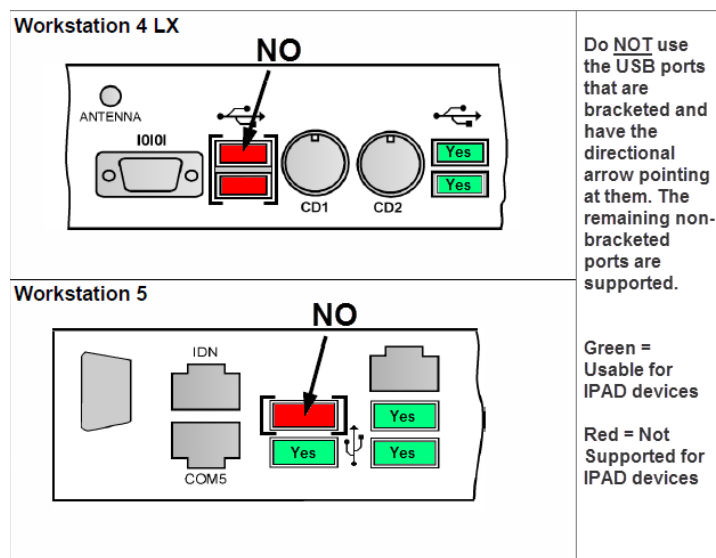
Note that once you enable EMSR mode, you cannot disable it through POS Configurator. If you accidentally enable this mode, contact your product representative.

1. In the POS Configurator, click **System**, and then click **Restaurant**.
2. On the **Security** tab, select **Encrypted MSR Mode**.
3. Click **Yes** to confirm enabling EMSR mode.

4. Configure the **Function: Non-Sales/Sign in PINpad swipe**. This allows operators to use the EMSR for swiping an employee ID card for signing into a client.

## Installing the MagTek IPAD Reader

You can install the MagTek IPAD Reader on a client to encrypt card data at the point of swipe. On the Workstation 4 LX and Workstation 5, you must connect the reader to the client using compatible USB ports as shown in the following image:



**Figure 9-8 - MagTek Reader Ports**

1. On the client that will use the MagTek IPAD reader, stop POS Operations.
2. Connect the MagTek device to the client USB port.
3. Start POS Operations.
4. Test the reader by pressing the **Clock-in** key. The reader should make a sound and prompt the user to swipe a card.
5. Close the **Clock In** dialog box.

## Manually Entering Credit Card Data in EMSR Mode

If the magnetic stripe reader cannot read a credit card, you can enter the account number using the ID Tech SecureKey device. You cannot use the POS Operations touchscreen to enter card data.

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## 10 Uninstalling RES

Depending on your operating system, use the Microsoft Windows Programs and Features application or the Microsoft Windows 10 Apps setting to uninstall **Micros RES** and **Micros RES Prerequisites**.



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# 11 Troubleshooting

## Updating the Firewall Exceptions List

If you enabled your firewall after installation, changed firewalls, or your clients constantly show prompts for Backup Server Mode and Stand-alone Resiliency, run the following batch file to update the exceptions list:

```
%MicrosDrive%\Micros\common\Bin\ConfigureICF.bat
```

## Cannot Start POS Operations After Changing Server Name or IP Address

RES does not automatically propagate server identity changes to clients.

1. After making changes in the network node, click **Update Host File**.
2. Click **Start**, select **Programs**, select **MICROS Applications**, and then click **MICROS Control Panel**.
3. Select the SQL Database Server node.
4. On the **Status** tab, click **Reload**.
5. Set **Restaurant** to OFF.
6. Restart the server.

## Cannot Update Database

The RES installer uses a safeguard to prevent updating a database from a later RES version to an earlier RES version. This safeguard can prevent you from performing an acceptable update. The safeguard determines whether you can perform the database update by comparing the **db\_build\_num** column for the Database row in the **db\_version\_cfg** table to the last four digits of the Version registry key. The conflict arises because maintenance releases do not update the registry key.

For example, the RES 5.2 installer sets the **db\_build\_num** of the Database row to 1327 and the **HKLM\Software\SysWow6432Node\MICROS\Version** key to 5.2.0005.1327. The 5.2 MR2 installer changes the **db\_build\_num** of the Database row to 1714 as part of its update procedure. If you try to perform a database update after installing the maintenance release, the safeguard finds that the Database number (1714) points to a later version than the perceived registry version (1327) and does not allow the database update.

You can work around the version check to update a database by installing a maintenance release, which always performs a database update. If you do not have an available maintenance release, you can perform the following steps:

1. Click **Start**, click **Run**, enter **Regedit**, and then click **Run**.
2. Navigate to **HKLM\Software\SysWow6432Node\Micros**.
3. Change the last four digits of the Version key to a higher number than the Database **db\_build\_num**. For example, change 5.2.0005.1327 to 5.2.0005.2327 to make the registry version higher than 1714.
4. Click **Start**, click **Run**, enter **DM -U**, and then click **Run**. This updates the database.

- 
5. Revert the last four digits of the Version key. If you do not revert the registry version, an incorrect database update can cause errors and future RES updates can fail.
  6. Restart the server.

## Fixing a Corrupted Compact Flash

The Compact Flash can be corrupted if the server or client powers off during installation. Reformat the compact flash and restart the installation process on the client.

## POS Operations says “System Closed” on Clients

If you set the server (**Restaurant**) to Back of House in the MICROS Control Panel, all clients show the “System Closed” screen.

To fix this issue, set **Restaurant** to Front of House.

## Removing Unused Client Nodes from the Database

RES continues attempting to connect to unused clients. Remove unused client nodes from the database to reduce the amount of bandwidth used to search for clients.

1. Click **Start**, select **MICROS Applications**, and then click **MICROS Control Panel**.
2. On the menu bar, click **View**, and then click **Show All Clients**.
3. Remove the unused client nodes.

## Printing Service Fails

Do not assign more than 8 print devices to a client.

Restart the client.

## Finding the Delivery Dispatch File

RES installs `DeliveryDispatch.Iog` in `MICROS\RES\POS\Etc`

## Finding the Installation Log Files

If you are performing a full install, RES Setup creates the log file `MicrosResSetup.log` in the Windows folder of the RES server.

If you are installing a maintenance release, RES Setup creates the log files `MicrosResPatch.log` and `MicrosMainPatch.log` in the Windows folder of the RES server.

## Monitoring the Database in Real Time

Use the SAP SQL Anywhere Cockpit to monitor the database and configure email alerts.

1. In SQL Central, connect to the database, right-click the database server, and then click **Open SQL Anywhere Cockpit**.
2. Follow the instructions until a web browser opens the login page for SQL Anywhere Cockpit.
3. Enter a dba username, password, and the name of the database.

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4. Use the **MESSAGES** page to view and configure alerts. The *SAP SQL Anywhere* documentation contains more information about setting up and using the SQL Anywhere Cockpit.

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## 12 Client CAL Folders

Each compatible client retrieves files from their respective folder in the  
\MICROS\Res\CAL\ directory.

**Table 12-1 - Client CAL Folders**

<b>Client</b>	<b>Folder</b>
DT Research WebDT 410	DT410
DT Research WebDT 415	
DT Research WebDT 430	DT430
Workstation 4LX	WS4LX
Workstation 5	WS5
Workstation 5A	WS5A
PCWS 2015	Win32
Tablet R-Series	mTablet
Tablet E-Series	Win32
Order Confirmation Board (Peripheral)	OrderConfirmation