Oracle Workstation 820
Setup Guide

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1
Preface

Audience

This document is intended for those who set up, install, and operate Oracle Workstation 8 Series workstations. It is not specific to a particular software application.

Admonitions

Unless specified, the information in this document applies to each configuration of the Workstation 8 Series.

The following symbols may appear in this document:

Caution: There is a risk of personal injury and equipment damage. Follow the instructions.

Caution: Hot surface. Avoid contact. Surfaces are hot and may cause personal injury if touched.

Caution: Hazardous voltages are present. To reduce the risk of electric shock and danger to personal health, follow the instructions.

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 recreate
- Exact error message received
- Screenshots of each step you take

Documentation

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

Revision History

Date	Description of Change
June 2023	• Initial publication.
June 2023	• Added additional information.
May 2024	• Added Modular MSR installation steps.
December 2024	• Updated product specs table.
March 2025	• Added USB fingerprint reader installation steps.

2

Oracle Workstation 820

Overview

The Workstation 820 features a clean, modern design that complements any commercial space and provides the performance, flexibility, and reliability your business needs to succeed. Customize your Workstation 820 with accessories designed to integrate seamlessly with minimal setup time, or choose a preassembled Workstation 8 configuration to get up and running ASAP.

Available accessories:

- **Vertical Stand**: A modern, stable stand for the Workstation 820.

- **Low Profile Stand**: Rock-solid support with a reduced vertical footprint for the Workstation 820.

- **Peripheral Expansion Module**: Expanded connectivity options for current and future needs.

- **Customer Facing Display for Vertical Stand**: Mounts on the Vertical Stand.

- **Customer Facing Display for Low Profile Stand**: Mounts on the Low Profile Stand.

- **Freestanding Customer Facing Display**: 7-Inch Customer Facing Display with integrated kickstand that allows rapid countertop deployment.

- **Customer Facing Display with Pole Mount**: 7-Inch Customer Facing Display pre-mounted on a pole. Pole base supports cash drawer mounting.

Workstation 820 System Unit Basic Features

The Workstation 820 System Unit includes the following basic features.

> ✎ **Note:**
>
> Oracle MICROS offers the Workstation 820 in multiple configurations. Depending on the configuration, your workstation may not include some of the features described in this document.

Figure 2-1   Workstation 820 System Unit Basic Features
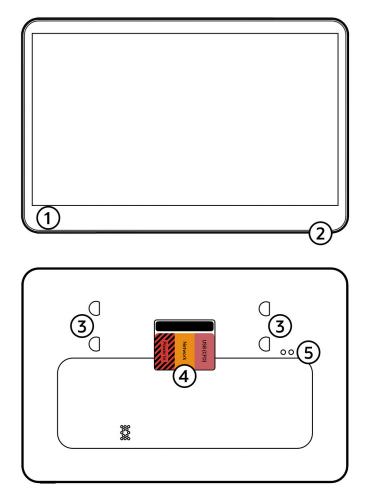
Table 2-1   Oracle MICROS Workstation 820 System Unit Basic Features

Feature	Description
1. RFID scan area (optional)	Reads MICROS Contactless Employee ID Cards for employee sign in.
2. Power button	The Workstation 820 features a capacitive touch power button that does not depress. When turning the workstation on or off, simply touch the button lightly for the proper duration. There is no need to push the button with force. • **Power on the workstation:** Touch button for two seconds. The workstation will emit a single beep. • **Power off the workstation:** Touch button for three seconds. The workstation will emit three beeps.
3. Stand mounting posts	Allows you to mount the workstation on Workstation 8 Series stands.
4. Power In, Network, USB (CFD)	Ports for power, networking, and peripherals, including the 7-Inch Customer Facing Display.
5. Stand Information Contacts	Contact points used to transmit stand-specific information, including part and serial numbers.

Workstation 820 System Unit Input/Output (IO) Panel

The Workstation 820 system unit IO panel includes ports for power, network connectivity, and peripherals.

> **Note:**
>
> The Workstation 820 ships with protective covering installed over the **Network** and **USB (CFD)** ports. It is not necessary to remove the protective covering unless the ports will be used. If required, remove the protective covering by peeling from the end.

Figure 2-2   Workstation 820 System Unit IO Panel
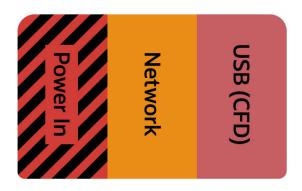
Table 2-2   Workstation 820 System Unit IO Panel Ports

Port	Description
Power In	• *For configurations without the Peripheral Expansion Module*: Connect the included MICROS power adapter to the **Power In** port. • *For configurations with the Peripheral Expansion Module*: Connect cable from Workstation 820 **Power In** port to the Peripheral Expansion Module **System** port. The cable provides necessary connectivity for power and IO ports.
Network	Lets you connect the Workstation 820 system unit to a wired network via the Ethernet adapter cable for Oracle MICROS Workstation 8 Series. *Note:* It is not necessary to remove the protective cover from the **Network** port if wireless networking or the Peripheral Expansion Module will be used.
USB (CFD)	Lets you connect peripherals to the Workstation 820, including the 7-Inch Customer Facing Display. *Note:* It is not necessary to remove the protective cover from the **USB (CFD)** port if the Peripheral Expansion Module will be used.

Technical Specifications

Table 2-3   Technical Specifications for the MICROS Workstation 820

Feature	Description
Processor*	Intel Celeron J6413 Quad-Core
Graphics*	Intel UHD Graphics
Display	14- inch FHD (1920x1080p) on-cell touchscreen with 250nit brightness and anti-glare coating
Memory*	8GB
Storage*	• 256GB SSD (Workstation 820 with Microsoft Windows) • 128GB SSD (Workstation 820 with Oracle Linux for MICROS)
Operating System	• Microsoft Windows 10 IoT Enterprise LTSC 2021 64 bit • Microsoft Windows 11 IoT Enterprise LTSC 2024 64 bit • Oracle Linux for MICROS 64 bit
RFID (optional)	Integrated RFID reader for employee sign in. Reads 125 kHz and 13.56 MHz RFID tags.
Audio	Basic audio confirmations. HD Audio, single speaker.
Network	• 1 - Network port. (Requires Ethernet adapter cable for Oracle MICROS Workstation 8 Series for direct connection to Ethernet port) • Wi-Fi (optional): Intel Wi-Fi 6E AX210 (Gig+) 802.11ax Tri Band 2x2 160MHz channels, BT5.3

Table 2-3   (Cont.) Technical Specifications for the MICROS Workstation 820

Feature	Description
USB	1 - USB power input 1 - Custom low-profile GbE port 1 - USB CFD (Customer Facing Display) port with DisplayPort support The Peripheral Expansion Module (optional) includes the following ports: 1 - Ethernet 5 - USB 1 - IDN 1 - Serial 2 - Cash drawer
Power Supply	Compatible with the Workstation 8 Series power supply.
Supported Stands	Vertical Stand, Low Profile Stand
Weight	1.09 kg / 2.4 lbs
Dimensions	- Workstation only: 329.11mm x 215.79mm x 17mm (12.95 x 8.49 x 0.67 inches) - Workstation with Vertical Stand: 329.11mm x 289mm x 182mm (12.95 x 11.38 x 7.17 inches) - Workstation with Low Profile Stand: 329.11mm x 100mm x 296mm (12.95 x 3.94 x 11.65 inches) - Workstation with Low Profile Stand and Customer Facing Display: 329.11mm x 100mm x 314mm (12.95 x 3.94 x 12.36 inches) All measurements are approximate.
Operating Temperature and Humidity	0 °C (32 °F) to 50 °C (122 °F); 90% Max relative humidity (non-condensing)
Enclosure	- IP Rating: Workstation 8 System Unit: IP54. When used with the optional Peripheral Expansion Module: IP34. - All-aluminum casework provides passive system cooling (no fans)
Certifications	FCC Class A, UL, CE, TUV, RoHS, China RoHS
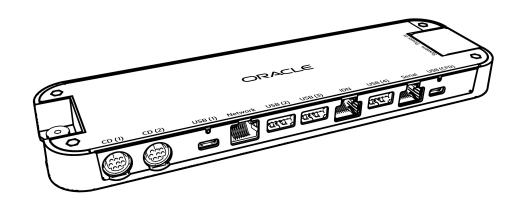
*The Workstation 820 enclosure is non-serviceable. Internal components cannot be upgraded.

3

The Peripheral Expansion Module

Overview

The optional Peripheral Expansion Module provides expanded connectivity for current and future needs.

Peripheral Expansion Module Basic Features

Figure 3-1   Peripheral Expansion Module Basic Features
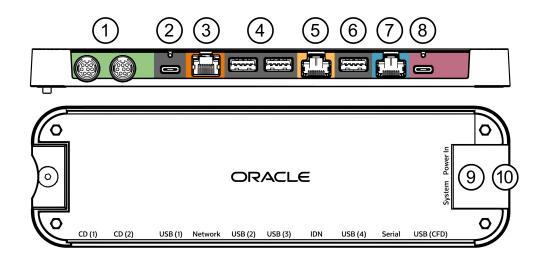
Table 3-1   Peripheral Expansion Module Basic Features

Port/Feature	Description
1.CD(1), CD(2)	Cash drawer ports.
2. USB(1)	USB port for connecting peripherals.
3. Network	Ethernet port for connecting to wired networks.
4. USB(2), USB(3)	USB ports for connecting peripherals.
5. IDN	IDN port for connecting to IDN devices. Can also be used for connecting serial devices without hardware handshaking. IDN = Com 4 Serial = Com 2.
6. USB(4)	USB port for connecting peripherals.
7. Serial	Serial port (Com 1).
8. USB(CFD)	USB port for connecting peripherals, including the 7–Inch Customer Facing Display.
9. System, Power In	**System:** Connect to the **Power In** port on the Workstation 820. **Power In:** Connect to the Workstation 8 Series power supply to deliver power to the Workstation 820 and all peripherals.
10. System/Power In Cover	The cover can be opened for easy port access.
Product Dimensions	230.63mm x 67.83mm x 18.45mm (9.1 x 2.7 x .7 inches)

Peripheral Expansion Module Stand Mounting Points

Figure 3-2   Peripheral Expansion Module Stand Mounting Points
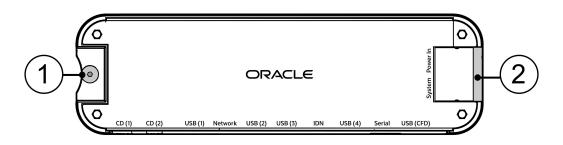
Table 3-2   Peripheral Expansion Module Stand Mounting Points

Mounting Point	Description
1. Captive screw	The captive screw secures the Peripheral Expansion Module to Workstation 8 Series stands. Use the Oracle 2.5mm hex key to tighten.
2. Stand mounting edge	The stand mounting edge slides into the mounting slot on Workstation 8 Series stands.
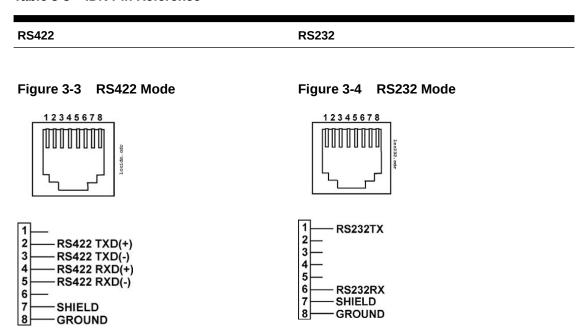
Pin Reference for Selected Peripheral Expansion Module Ports

This section provides additional information about selected ports on the Peripheral Expansion Module.

IDN (RS422/232)

You can configure the IDN connector to run in RS422 mode or RS232 mode as shown in the following table. When using the IDN port for RS232, the port is identified as Com 2.
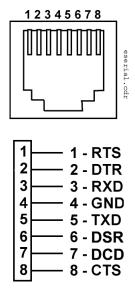
Table 3-3   IDN Pin Reference

RS422	RS232

Figure 3-3   RS422 Mode   **Figure 3-4   RS232 Mode**

Serial Port

The Serial connector contains the following pins.

Figure 3-5   Serial Port Pin Reference

CD(1), CD(2) Series 2 Cash Drawer

The Series 2 Cash Drawer connector is an 8-pin Mini-DIN. You can convert this connector into a legacy MICROS 4-pin DIN cash drawer connector using a P/N 300290-020-PT cable.

Figure 3-6   Series 2 Cash Drawer Pin Reference

The following table describes the signal name and function of each pin.

Table 3-4   Series 2 Cash Drawer Pin and Signal Reference

Pin #	Signal Name	Description
1	VCC12 or VCC24	Cash drawer power
2	CD_OPEN	Open drawer
3, 7, 8	Ground	Signal grounds
4	CD_ST	Input status from cash drawer
5	MCU_TX_5V	Tx data to cash drawer
6	MCURX	Rx data from cash drawer

4

Workstation Setup and Software Installation – Basic Steps

4-1

This section provides basic workstation hardware setup guidance and describes the software setup process that occurs when you turn on your new workstation.

Workstation 8 Series Stands and Mounts

All Workstation 8 Series stands and mounts feature identical Release, Lock/Unlock, and Stand Information Contacts, allowing you to rapidly swap stands and workstations without worrying about compatibility.

Figure 4-1   Location of the Release, Lock/Unlock, and Stand Information Contacts on a Workstation 8 Series Stand

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4-1
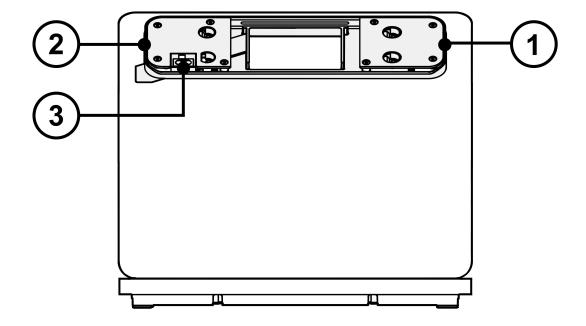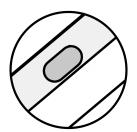
Table 4-1   Release, Lock/Unlock, and Stand Information Contacts

Feature	Description
1. Release	Press the **Release** button with the Oracle 2.5mm hex key or equivalent to release the workstation from the stand. **Note:** Secure the workstation when pressing the **Release** button to prevent sudden drops. If the workstation does not release from the stand, insert the Oracle 2.5mm hex key or equivalent into the **Lock/unlock** socket, turn counterclockwise, and then press the **Release** button.
2. Lock/Unlock	✏ **Note:** Use of the Lock feature is optional. **Lock:** Insert the Oracle 2.5mm hex key or equivalent into the **Lock/Unlock** socket and turn clockwise to lock the workstation. **Unlock:** Insert the Oracle 2.5mm hex key or equivalent into the **Lock/Unlock** socket and turn counterclockwise to unlock the workstation. **Note**: To release the workstation from the stand after unlocking it, press the **Release** button.
3. Stand Information Contacts	When paired with any Workstation 8 Series workstation, the stand information contacts transmit stand-specific information, including part and serial numbers.
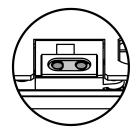
The Oracle 2.5mm Hex Key

Oracle provides a 2.5mm hex key with many Workstation 8 Series hardware products. The hex key lets you perform a number of important tasks such as locking and unlocking a workstation/stand assembly, releasing the workstation from a stand, tightening/loosening stand captive screws, and mounting/unmounting peripherals.
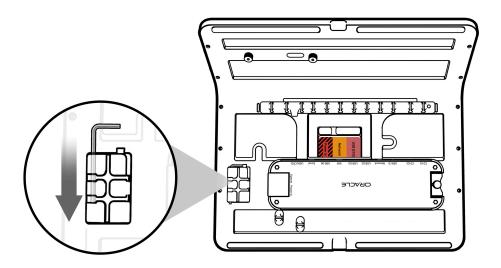
Figure 4-2   Oracle 2.5mm hex key

Storing the Oracle 2.5mm Hex Key

Workstation 8 Series stands include a storage slot in the cable organizer for a single Oracle 2.5mm hex key, as shown below.
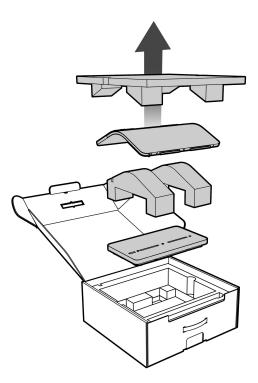
Figure 4-3   Hex key storage slot on Workstation 8 Series stands

Mounting the Workstation 820 on the Vertical Stand
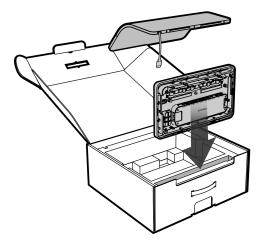
1. Unpack the Vertical Stand box. Do not discard the box or the foam packing material.

Figure 4-4   Unpacking the Vertical Stand
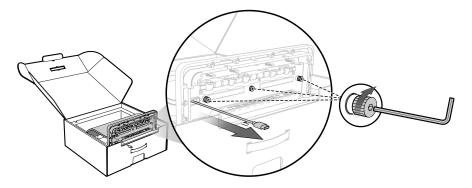
2. Insert the stand base into the front foam slot with the Peripheral Expansion Module (Oracle logo upside down) facing the box handle, and then place the stand body in the box behind it with the cable facing the stand base.

Figure 4-5   Using the box to assist with assembly

3. Feed the system power cable through the small opening in the stand base, and then tighten the three captive screws on the stand base with the Oracle 2.5mm hex key or equivalent.

Figure 4-6   Threading the System cable and tightening captive screws
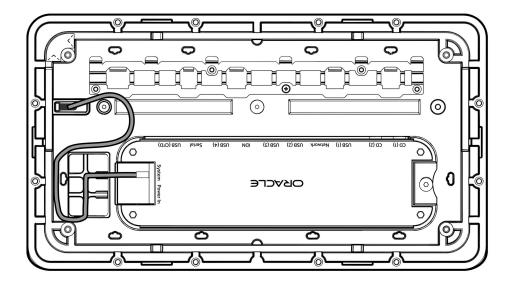
4. Connect the system cable to the System port on the Peripheral Expansion Module. Route the cable through the rubber cable organizer as shown in Figure 4.
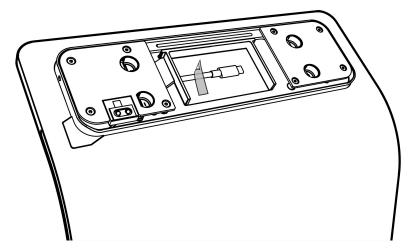
> **✎ Note:**
>
> Workstation 8 Series ports and cables are color-coded to simplify assembly.

Figure 4-7   Connecting the system cable to the System port on the Peripheral Expansion Module
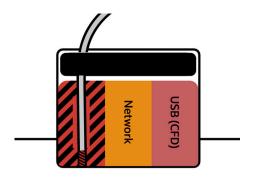
5. Remove and discard the tape that secures the system cable to the Vertical Stand.

Figure 4-8   Removing tape from the system cable

6. Connect the system cable to the **Power In** port on the Workstation 820.

Figure 4-9   Connecting the system cable to the Workstation 820 Power In port

7. Insert the Workstation 820 into the four openings on the Vertical Stand mounting plate until it clicks into place, and then use the Oracle 2.5mm hex key or equivalent to lock the assembly(optional).
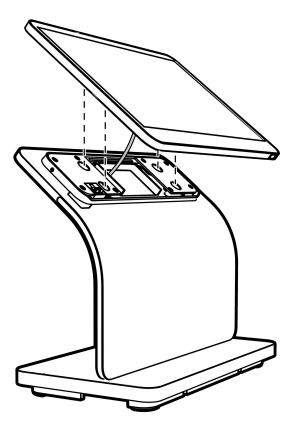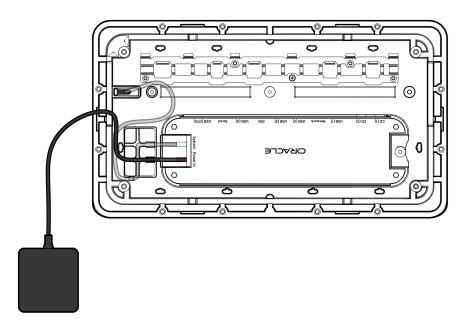
Figure 4-10   Mounting the Workstation 820 on the Vertical Stand

8. Connect the Workstation 8 Series power supply to the **Power In** port on the Peripheral Expansion Module. Route the cable through the rubber cable organizer as shown below.

Figure 4-11   Connecting the Workstation 8 Series power supply

9. Connect your country-specific power cord to the Workstation 8 Series power supply. Ensure the power cord is fully inserted into the power supply socket.

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10. Plug the power cord into a power outlet, and then touch the power button for two seconds to power on the Workstation 820.

Mounting the Workstation 820 on the Low Profile Stand

1. Unpack the Low Profile Stand box. Retain the box and foam for potential storage or shipping needs.

2. Insert the Workstation 820 into the four openings on the Low Profile Stand mounting plate until it clicks into place, and then use the Oracle 2.5mm hex key or equivalent to lock the assembly (optional).

Figure 4-12   Mounting the Workstation 820 on the Low Profile Stand

3. Connect the Workstation 8 Series power supply to the **Power In** port on the Workstation 820. Follow the cable routing path as shown below.

> ✎ **Note:**
>
> Workstation 8 Series ports and cables are color-coded to simplify assembly.
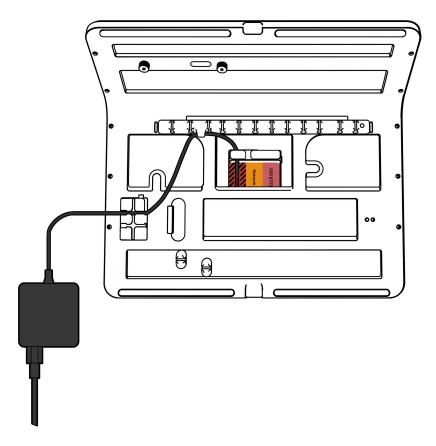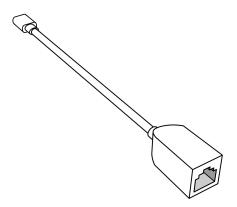
Figure 4-13   Connecting the Workstation 8 Series power supply to the Workstation 820

4. Connect your country-specific power cord to the Workstation 8 Series power supply. Ensure the power cord is fully inserted into the power supply socket.

5. Plug the power cord into a power outlet, and then touch the power button for two seconds to power on the Workstation 820.

Installing the Ethernet Adapter Cable for Oracle MICROS Workstation 8 Series
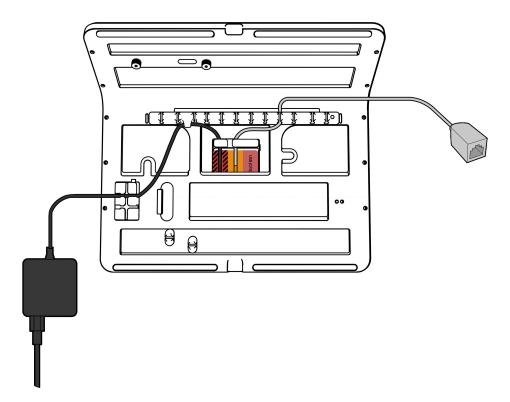
The Ethernet Adapter Cable for Oracle MICROS Workstation 8 Series lets you connect Workstation 820 configurations without a Peripheral Expansion Module to a wired network.

Figure 4-14   Ethernet Adapter Cable for Oracle MICROS Workstation 8 Series

1. Connect the Ethernet Adapter Cable for Oracle MICROS Workstation 8 Series to the **Network** port on the Workstation 820. Follow the cable routing path as shown below.

Figure 4-15   Connecting the Ethernet Adapter Cable for Oracle MICROS Workstation 8 Series to the Workstation 820
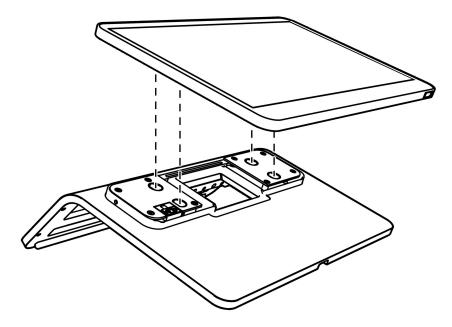
2. Connect an Ethernet cable to the Ethernet Adapter Cable for Oracle MICROS Workstation 8 Series, and then plug the Ethernet cable into an Ethernet outlet, hub, or other networking device.

Mounting the Workstation 820 and Peripheral Expansion Module on the Low Profile Stand

1. Unpack the Workstation 820, Low Profile Stand, and Peripheral Expansion Module. Retain the boxes and foam for potential storage or shipping needs.

2. Insert the Workstation 820 into the four openings on the Low Profile Stand mounting plate until it clicks into place, and then use the Oracle 2.5mm hex key or equivalent to lock the assembly (optional).

Figure 4-16   Mounting the Workstation 820 on the Low Profile Stand
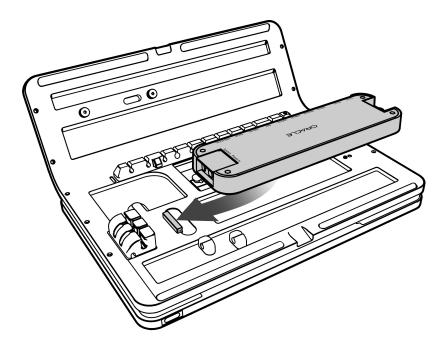
3. Place the Low Profile Stand workstation-side down on a flat, non-abrasive surface, and then slide the Peripheral Expansion Module into the mounting slot on the stand.
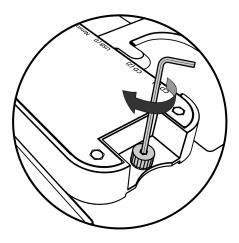
Figure 4-17   Mounting the Peripheral Expansion Module on the Low Profile Stand

4. Tighten the Peripheral Expansion Module captive screw with the Oracle 2.5mm hex key or equivalent.

Figure 4-18   Tightening the Peripheral Expansion Module captive screw

5. Connect the system cable to the **Power In** port on the Workstation 820 and the **System** port on the Peripheral Expansion Module. Open the port cover for easy access to the ports. Follow the cable routing path shown below.

> ✎ **Note:**
>
> Workstation 8 Series ports and cables are color-coded to simplify assembly.
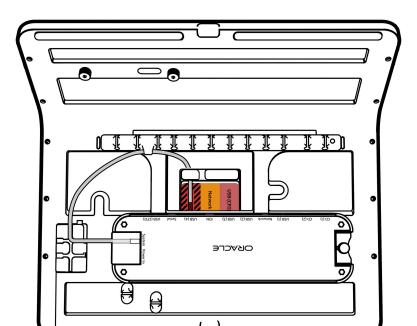
Figure 4-19   Connecting and routing the system cable

6. Connect the Workstation 8 Series power supply to the **Power In** port on the Peripheral Expansion Module. Follow the cable routing path shown in Figure 4.
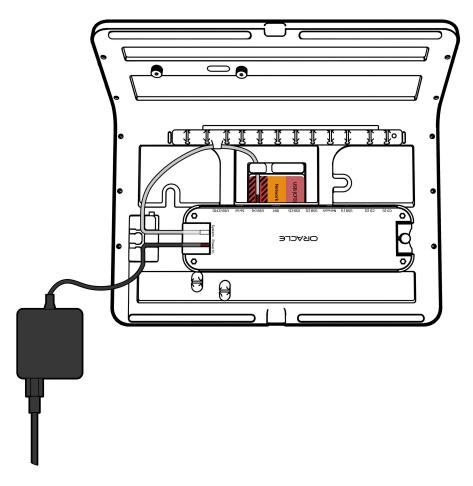
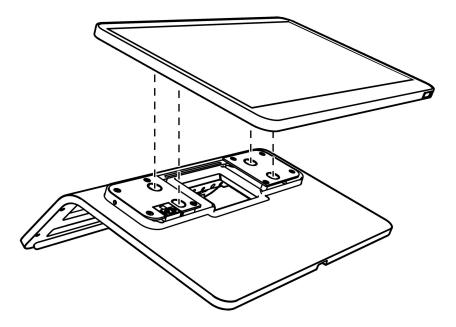**Figure 4-20   Connecting and routing the Workstation 8 Series power supply cable**

7. Connect your country-specific power cord to the Workstation 8 Series power supply. Ensure the power cord is fully inserted into the power supply socket.

8. Plug the power cord into a power outlet, and then touch the power button for two seconds to power on the Workstation 820.

Initial Workstation Startup – Microsoft Windows 10

The first time you start your workstation you must complete the Microsoft Windows 10 operating system setup.

1. Complete the Microsoft Windows setup by following the prompts. Consult your network administrator for help with configuring network and system settings.

2. Ensure your workstation is connected to a secure network.

3. Install the Client Application Loader (CAL) by double-tapping the **CALClient Installer** icon and following the prompts. Upon successful completion, the workstation is connected to your application's CAL server. For more information, refer to the latest version of the *Oracle Hospitality Simphony Client Deployment Guide* on the Oracle Help Center at https://docs.oracle.com/en/industries/food-beverage/.

Initial Workstation Startup – Oracle Linux for MICROS

The first time you start your workstation you must complete the Oracle Linux for MICROS operating system setup.

1. Follow the prompts to complete the Oracle Linux for MICROS setup.

    a. Set language, keyboard, and time zone.

    b. Enter and confirm a Support user password. Follow the password length and complexity requirements displayed on-screen.

    c. Configure the network settings.

    d. Enter the CAL server address to install your Oracle MICROS POS software. For more information, refer to the latest version of the *Oracle Hospitality Simphony Client Deployment Guide* on the Oracle Help Center at https://docs.oracle.com/en/industries/food-beverage/.

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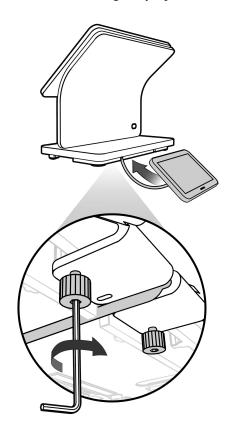
Workstation Accessories Setup and Use

This section contains instructions for setting up and using Workstation 8 Series accessories.

Customer Facing Display for Vertical Stand

1. Choose the location (left or right) on the Vertical Stand to mount the Customer Facing Display.

2. Place the Customer Facing Display assembly against the Vertical Stand base, aligning the captive screws with the corresponding holes in the stand.

3. Place the cable in the notch in the Vertical Stand base, and then tighten the Customer Facing Display captive screws with the MICROS 2.5mm hex key or equivalent.
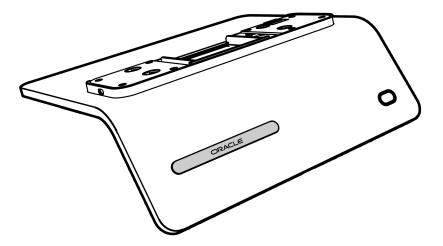
Figure 5-1   Mounting the Customer Facing Display on the Vertical Stand

4. Connect the cable to the Workstation 820 **USB(CFD)** port.

5. If you are adding a Customer Facing Display to an existing Workstation 8 Series configuration with a Peripheral Expansion Module, connect the cable to the Peripheral Expansion Module **USB(CFD)** port.

Customer Facing Display for Low Profile Stand   5-2
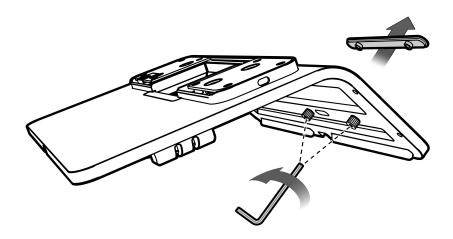
1. Locate the Customer Facing Display mounting point cover with the Oracle logo.

Figure 5-2   Locating the Customer Facing Display mounting point cover
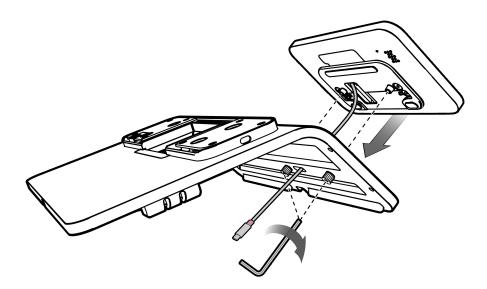
2. Use the Oracle 2.5mm hex key or equivalent to loosen the stand captive screws holding the cover in place, and then remove the cover.

Figure 5-3   Removing the Customer Facing Display mounting point cover

3. Feed the Customer Facing Display cable through the opening in the mounting point, and then insert the Customer Facing Display into the captive screws. Use the Oracle 2.5mm hex key or equivalent to tighten the stand captive screws.
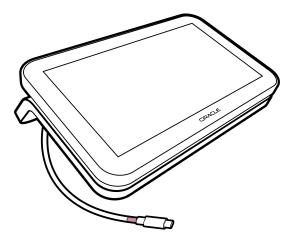
Figure 5-4   Mounting the Customer Facing Display on the Low Profile Stand

4. Connect the cable to the Workstation 820 **USB(CFD)** port.

5. If you are adding a Customer Facing Display to an existing Workstation 8 Series configuration with a Peripheral Expansion Module, connect the cable to the Peripheral Expansion Module **USB(CFD)** port.

Freestanding Customer Facing Display
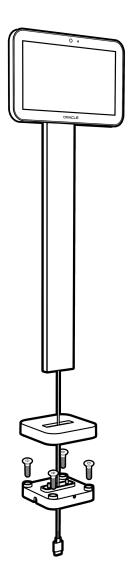
Figure 5-5   Freestanding Customer Facing Display

1. Connect the Freestanding Customer Facing Display cable to the Workstation 820 **USB(CFD)** port.

2. If you are adding a Freestanding Customer Facing Display to an existing Workstation 8 Series configuration with a Peripheral Expansion Module, connect the cable to the Peripheral Expansion Module **USB(CFD)** port.

Installing the Customer Display with Pole Mount on a Cash Drawer or Other Surface

Figure 5-6   Customer Display with Pole Mount

To attach the Customer Display with Pole Mount to a cash drawer or other surface without a cable routing hole:

1. Tighten the pole base plate captive screws, if required. Guide the cable through an opening in the base plate.

2. Attach the Customer Display with Pole Mount to the cash drawer or other surface using the four #8-32 base plate screws included in the Customer Display with Pole Mount box.

To attach the Customer Display with Pole Mount to a cash drawer or other surface with a cable routing hole:

1. Tighten the pole base plate captive screws, if required. Guide the cable through cable routing hole.

2. Attach the Customer Display with Pole Mount to the surface using the four #8-32 base plate screws included in the Customer Display with Pole Mount box.

3. For configurations without the Peripheral Expansion Module, connect the Customer Display with Pole Mount cable to the Workstation 820 **USB(CFD)** port.

4. For configurations with the Peripheral Expansion Module, connect the Customer Display with Pole Mount cable to the Peripheral Expansion Module **USB(CFD)** port.

.

Installing the Modular Magnetic Stripe Reader (MSR) for Oracle MICROS Workstation 8 Series
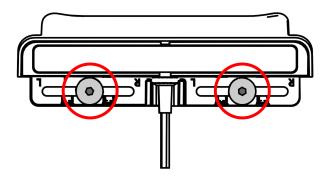
> **✏ Note:**
>
> Before installing the Modular MSR for Oracle MICROS Workstation 8 Series you must install patch EHW0.P2.240510 or later or be on a Workstation 8 image version later than 240510.

Oracle Workstation 8 with Vertical Stand or Vertical Stand with Tilt

1. Slide the Modular MSR captive screws to the center position.

Figure 5-7   Modular MSR Captive Screws in the Center Position
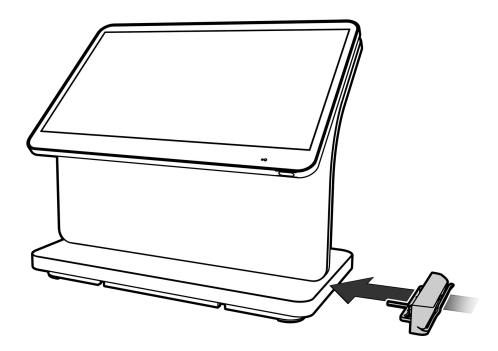
2. Position the Modular MSR on an available accessory mounting point along the edges of the Vertical Stand base. Each accessory mounting point has two holes for attaching devices.

   The most common installation location for the Modular MSR is on the right side of the stand base.
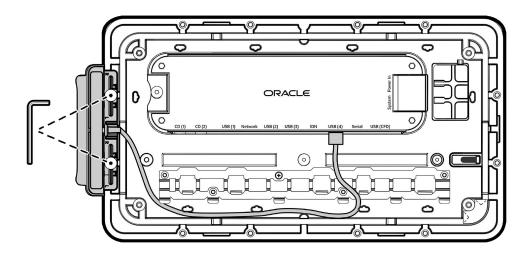
Figure 5-8   Positioning the Modular MSR

3. Align the captive screws with the two accessory mounting point screw holes, and then secure the Modular MSR to the Vertical Stand base using an Oracle 2.5mm hex key.

4. Route the Modular MSR cable through the cable guides in the stand base, and then connect it to an available USB port on the Oracle Peripheral Expansion Module.
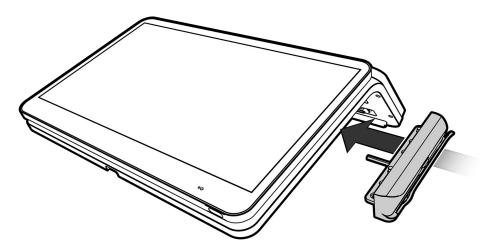
Figure 5-9   Installing the Modular MSR

Workstation 8 with Low Profile Stand
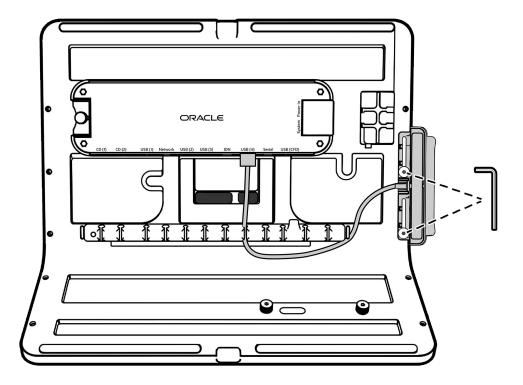
1. Position the Modular MSR on an available accessory mounting point along the left or right edge of the Low Profile Stand. Each accessory mounting point has two holes for attaching devices.

Figure 5-10   Positioning the Modular MSR

2. Align the captive screws with the two accessory mounting point screw holes. Depending on the installation location, you may need to slide the captive screws to a different position to match the screw holes.

3. Use an Oracle 2.5mm hex key to secure the Modular MSR to the Low Profile Stand.

4. Route the Modular MSR cable through the stand cable guides, and then connect it to an available USB port on the Oracle Peripheral Expansion Module.
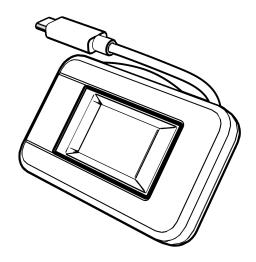
Figure 5-11   Installing the Modular MSR

> 📝 **Note:**
>
> • No Simphony configuration required.

Installing the USB Fingerprint Reader with Mounting Brackets

Mount the fingerprint reader on the Vertical Stand:

> 📝 **Note:**
>
> The fingerprint reader ships with the stand mount preattached. To install the fingerprint reader on a Workstation 8 you must remove the stand mount and attach the included workstation mount.
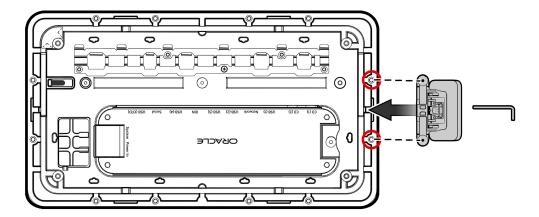
> 📝 **Note:**
>
> Before installing workstation accessories, routing cables, or other maintenance, place a cloth or cardboard on your work surface to avoid damaging the Workstation 8.

1. Place the Vertical Stand on its side.
2. Position the fingerprint reader on an available accessory mounting point along the edge of the Vertical Stand base. Each accessory mounting point has two holes for attaching devices.
3. Align the captive screws with the two accessory mounting point screw holes, and then secure the fingerprint reader to the Vertical Stand base using an Oracle 2.5mm hex key.
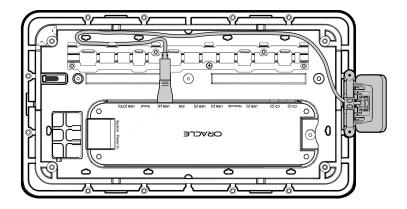
Figure 5-12   Positioning the Fingerprint Reader on the Vertical Stand

4. Route the fingerprint reader cable through the cable guides in the stand base, and then connect it to an available USB port on the Oracle Peripheral Expansion Module. Note that the cable shown in the following image follows the suggested routing path, but you may choose a different routing path depending on your configuration.

Figure 5-13   Routing and Connecting the Fingerprint Reader Cable

Mount the fingerprint reader on the Low Profile Stand

> **Note:**
>
> Before installing workstation accessories, routing cables, or other maintenance, place a cloth or cardboard on your work surface to avoid damaging the Workstation 8.

1. Position the fingerprint reader on an available accessory mounting point along the edge of the Low Profile Stand. Each accessory mounting point has two holes for attaching devices.

2. Align the captive screws with the two accessory mounting point screw holes, and then secure the fingerprint reader to the Low Profile Stand using an Oracle 2.5mm hex key.
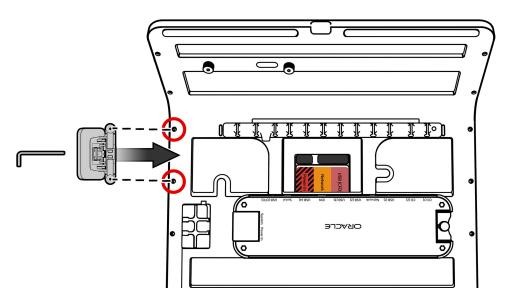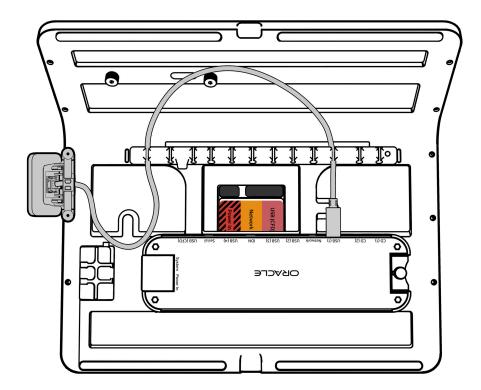
Figure 5-14   Positioning the Fingerprint Reader on the Low Profile Stand

3. Route the fingerprint reader cable through the cable guides in the stand base, and then connect it to an available USB port on the Oracle Peripheral Expansion Module. Note that the cable shown in the following image follows the suggested routing path, but you may choose a different routing path depending on your configuration.

Figure 5-15   Routing and Connecting the Fingerprint Reader Cable

Mount the fingerprint reader on the Workstation 8
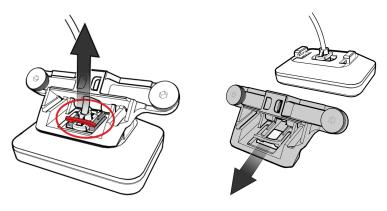
> **Note:**
>
> By default, the fingerprint reader ships with the stand mount preattached. To mount the fingerprint reader on the Workstation 8, you must remove the stand mount and replace it with the workstation mount.

Uninstall the stand mount from the fingerprint reader

1. Gently lift the horizontal plastic bar near the fingerprint reader attachment point, and then slide the stand mount away from the fingerprint reader.
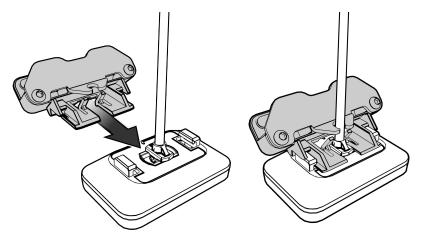
Figure 5-16   Uninstalling the Stand Mount from the Fingerprint Reader

Install the workstation mount on the fingerprint reader

1. Slide the workstation mount into the slot on the rear of the fingerprint reader.

Figure 5-17   Installing the Workstation Mount on the Fingerprint Reader
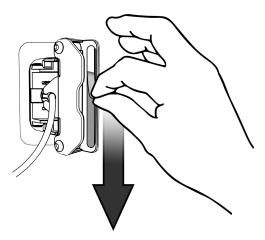
2. Peel away the adhesive strip backing on the workstation mount.

Install the Fingerprint Reader with Workstation Mount on the Workstation 8
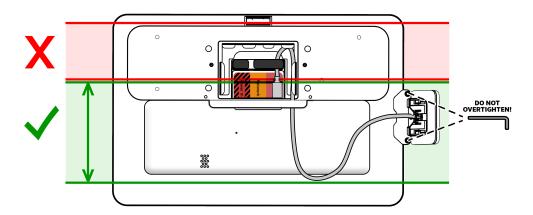
1. Peel away the adhesive strip backing on the workstation mount.

Figure 5-18   Peeling Away the Adhesive Strip Backing on the Workstation Mount

- **IMPORTANT!**: If you mount the fingerprint reader too high on the workstation, you will block access to certain features. Refer to the following illustration to ensure you mount the fingerprint reader in a safe mounting zone.

Figure 5-19   Installing the Fingerprint Reader in the Safe Zone on a Workstation 8

2. Attach the fingerprint reader to an area in the safe zone on side of the workstation.

3. Lightly tighten the fingerprint reader workstation mount with the included hex wrench. **Do not over tighten! Overtightening may cause screen damage or distortion.**

4. Connect the fingerprint reader cable to the Workstation 8.

6

Power Management States

The following power management states are available for the Workstation 820:

- Unplugged

  The Advanced Configuration and Power Interface (ACPI) specification refers to the unplugged state as mechanical off.

  In this state:

  – The AC power cord is not connected to a wall outlet.

  – The power button LED is off.

  – The LCD is blank.

- NOPOWER

  The ACPI specification refers to the NOPOWER state as S5, or a soft-off state in which the power supply remains active but delivers minimal power to key circuits to detect a power button or wake-on-LAN event.

  In this state:

  – The AC power cord is connected to a wall outlet.

  – The operating system and applications are not running.

  – The RAM contents are undefined.

  – The power button LED is white and fades in and out.

  – The LCD is off.

- ON

  In this state:

  – The operating system and POS application are in operation.

  – The RAM contents are maintained.

  – The power button LED is white.

- ON, in BIOS utility

  In this state:

  – The BIOS configuration utility is in operation.

  – The power button LED is white and blinks off and on.

Power Management State Changes

The following table describes the scenarios in which the power management state changes for the Workstation 820.

Table 6-1   Power Management State Changes

Starting State	Event	Resulting State
Unplugged	AC power is connected to a wall outlet and the last recorded power state was not the ON state.	NOPOWER
NOPOWER	The operator touches the power button for 2 second until a beep is heard.	ON
NOPOWER	A server application sends a Wake On LAN command.	ON
NOPOWER	AC power fails and then is restored.	NOPOWER*
ON	The operator touches the power button for 3 seconds until three beeps are heard.	NOPOWER**
ON	The application shuts down the workstation.	NOPOWER
ON	The Client Application Loader sends a Restart command.	NOPOWER and then ON
ON	AC power fails and then is restored.	ON*

*Based on the default BIOS power settings.

Microsoft Windows: Pressing the power button begins a graceful shutdown. This behavior is based on the Windows power button management setting. **Oracle Linux for MICROS: Pressing the power button initiates a graceful shutdown.

Workstation 820 Port Power Considerations for Peripheral Devices

The following table lists the Workstation 820 IO ports and the power consumed by each port, depending on BIOS or Diagnostics Utility configurations. Use the table when considering peripherals. Note that some ports do not accept peripherals.

Table 6-2   Workstation 820 Port Power Specifications

Port or Connector	Available Power Capability
Power In	Accepts the Workstation 8 Series power supply only.
Network	Accepts the Ethernet adapter cable for Oracle MICROS Workstation 8 Series only.
USB (CFD)	Auto-switching power delivery up to 15V 3A. Supports the 7-Inch Customer Facing Display.

7
Software Components

This section describes the software components available for the Workstation 8 Series.

The Workstation 820 is available with Microsoft Windows 10 IoT Enterprise LTSC 2021 64bit or the Oracle Linux for MICROS operating system.

Workstation 8 Series Platform

The Workstation 8 Series platform software includes the following components:

- **Hardware Device Drivers** specific to each configuration of the Workstation 8 Series.
- The **Workstation 8 Series API Driver** that allows applications to access the unique POS capabilities of the Workstation 8 Series.
- A **Diagnostic Utility** that provides the resources for testing functionality and validating software versions. The utility allows you to test peripheral components.
- The **Oracle MICROS Client Application Loader** for remotely managing the software on each configuration of the Workstation 8 Series.

Microsoft Windows 10 IoT Enterprise Operating System

The Workstation 820 is available with the Microsoft Windows 10 IoT Enterprise operating system pre-installed. This operating system offers the latest Windows 10 Enterprise innovations to the POS industry as well as enterprise-grade security and reliability to ensure your devices and data are protected against modern security threats. Features include:

- Comprehensive infrastructure and management features provide flexibility, consistency, and advanced security.
- Built-in defenses, such as Secure Boot, BitLocker, Device Guard, and Credential Guard, protect your information from leaks or theft.
- Advanced lockdown capabilities, such as AppLocker, help create a dedicated device experience for business applications.
- Support for Universal Windows apps and Classic Windows applications create a flexible and all-inclusive workspace.
- Native-device interoperability provides manageability and a connected organization.

Oracle Linux for MICROS Operating System

The Workstation 820 is available with the Oracle Linux for MICROS operating system pre-installed. Oracle Linux for MICROS is specifically designed for Oracle MICROS workstations and Oracle MICROS Simphony for enhanced performance, reliability, security and support.

Oracle Linux for MICROS Commands

> **Note:**
>
> Most deployments of Oracle Linux for MICROS do not require extensive Linux command line operations. Oracle Linux for MICROS commands are case sensitive.

Open another terminal

- Press **Ctrl+Alt+Fx** (where x = 4, 5, or 6) to open another terminal window.
- Press **Ctrl+Alt+F4**: Log in as **possupport**.

Find Linux image version information

- cat /etc/micros-release

Find network address of device

- ifconfig

Find network address of device

- ip addr

Check network status

- nmcli device status

Configure network

- nmtui

Verify contact to a remote host

- ping 10.209.76.197

Monitor the running processes, memory, and CPU usage

- top
- Press **q** to exit top command.

End a running process

- kill 4465

Edit a text file

- nano webconfig.txt

Restart the device

- reboot

Turn off the device

- shutdown now

8

Workstation Accessibility Features

The following table contains the workstation accessibility features for the Workstation 8 Series configurations with the Microsoft Windows 10 IoT Enterprise operating system.

Table 8-1   Accessibility Features for the Workstation 8 Series with the Microsoft Windows 10 IoT Enterprise Operating System

Feature	Behavior	Setup
Magnifier	In **Full-Screen Mode**, your entire screen is magnified. Depending on the size of your screen and the zoom level you choose, you might not be able to see all of the screen at the same time.	Select **Control Panel** > **Ease of Access Center** > **Start Magnifier** > **Views** > **Full screen**.
	In **Lens Mode**, the area around the mouse pointer is magnified. When you move the mouse pointer, the area of the screen that's magnified moves along with it.	Select **Control Panel** > **Ease of Access Center** > **Start Magnifier** > **Views** > **Lens**.
	In **Docked Mode**, only a portion of the screen is magnified, leaving the rest of your desktop unchanged. You can then control which area of the screen is magnified.	Select **Control Panel** > **Ease of Access Center** > **Start Magnifier** > **Views** > **Dock**.
Text or Visual Alternative to Sounds	The **Turn on visual notifications for sounds** option replaces system sounds with visual cues, such as a flash on the screen, so you can see notifications even when they're not heard. You can also choose how you want sound notifications to warn you.	Select **Control Panel** > **Ease of Access Center** > **Use text or visual alternatives for sounds** > **Turn on visual notifications for sounds**. Then, select a visual warning: • **1-None** • **2-Flash active caption bar** • **3-Flash active window** • **4-Flash desktop**
	The **Turn on text captions for spoken dialog** option displays text captions in place of sounds to indicate that activity is happening on your PC (for example, when a document starts or finishes printing).	Select **Control Panel** > **Ease of Access Center** > **Use text or visual alternatives for sounds** > **Turn on text captions for spoken dialog**.
On-Screen Keyboard	The **Use click sound** option lets you hear a sound when you press a key.	Select **Control Panel** > **Ease of Access Center** > **Start On-Screen Keyboard (OSK)** > **Options Key on keyboard** > **Use click sound**.

Table 8-1   (Cont.) Accessibility Features for the Workstation 8 Series with the Microsoft Windows 10 IoT Enterprise Operating System

Feature	Behavior	Setup
	The **Show keys to make it easier to move around the screen** option allows the keys to light up as you type.	Select **Control Panel** > **Ease of Access Center** > **Start On-Screen Keyboard (OSK)** > **Options Key on keyboard** > **Show keys to make it easier to move around the screen**.
	The **Turn on numeric keypad** option expands the On-Screen Keyboard (OSK) to show a numeric keypad.	Select **Control Panel** > **Ease of Access Center** > **Start On-Screen Keyboard (OSK)** > **Options Key on keyboard** > **Turn on numeric keypad**.
	The **Click on keys** option lets you click or tap the on-screen keys to enter text.	Select **Control Panel** > **Ease of Access Center** > **Start On-Screen Keyboard (OSK)** > **Options Key on keyboard** > **Click on Keys**.
	The **Hover over keys** option lets you use a mouse or joystick to point to a key. The characters you point to are entered automatically when you point to them for a specified time.	Select **Control Panel** > **Ease of Access Center** > **Start On-Screen Keyboard (OSK)** > **Options Key on keyboard** > **Hover over keys**.
	The **Scan through keys** option allows the OSK to continually scan the keyboard. Scan mode highlights areas where you can type keyboard characters by pressing a keyboard shortcut, using a switch input device, or using a device that simulates a mouse click.	Select **Control Panel** > **Ease of Access Center** > **Start On-Screen Keyboard (OSK)** > **Options Key on keyboard** > **Scan through keys**.
	The **Use Text Prediction** option allows the OSK to suggest words as you type so you don't need to type each complete word.	Select **Control Panel** > **Ease of Access Center** > **Start On-Screen Keyboard (OSK)** > **Options Key on keyboard** > **Use text prediction**.
Narrator	Narrators read text on your PC screen aloud and describes events, such as notifications or calendar appointments, so you can use your PC without a display.	Select **Control Panel** > **Ease of Access Center** > **Start Narrator**.
Speech Recognition	Windows Speech Recognition lets you control your PC with your voice alone, without needing a keyboard or mouse.	Select **Control Panel** > **Speech Recognition**.

9

Diagnostics Utility

The diagnostics utility lets you view information about the workstation, test features to confirm their functional state, and configure peripheral and option devices.

If logged in as a non-Administrator account, the Administrator password is required to access the diagnostics utility.

Starting the Diagnostics Utility

For workstations with Microsoft Windows:

1. Press **Start**.

2. Press **File Explorer**.

3. Navigate to the `C:\Bin\` folder.

4. Double-tap **WS8_Diagnostic_Utility_X.X.X.X.exe**.

For workstations with Oracle Linux for MICROS:

1. From Simphony OPS, press **Ctrl+Alt+Fx** (where x = 4, 5, or 6) to open another terminal window.

2. Log in as possupport user.

3. Type **startd** to open the Universal Diagnostic Utility.

10

BIOS Configuration

This section describes how to access the BIOS System Configuration Utility.

The Oracle MICROS Workstation 820 ships with the BIOS pre-configured for optimal performance. In most cases you will not need to change settings.

Starting the BIOS System Configuration Utility

To configure the BIOS, start the BIOS System Configuration Utility using the following steps:

1. With keyboard: Connect a USB keyboard to the Workstation 820 **USB (CFD)** port (adapter required) or an available USB port on the Peripheral Expansion Module.

2. Power on or restart the workstation.

3. When the message *Press <F2> to enter setup* appears at the bottom of the screen, press **F2** or tap the lower left or lower right third of the bootup screen to enter the BIOS Configuration Utility.
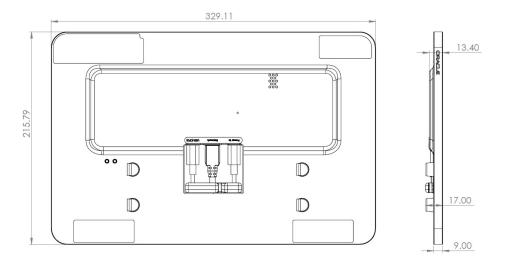
11
Equipment Dimensions

This section contains the equipment dimensions for Workstation 8 Series hardware.

> **Note:**
>
> All dimensions shown in millimeters.
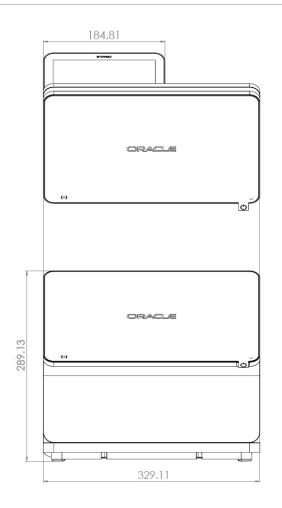
Workstation 820 Dimensions
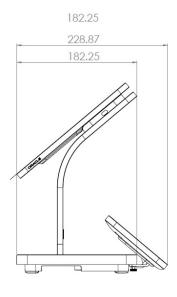
Workstation 820 with Vertical Stand Dimensions

> **Note:**
>
> All dimensions shown in millimeters.
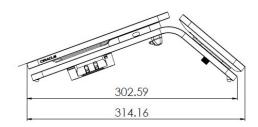
Workstation 820 with Low Profile Stand Dimensions

> **Note:**
>
> All dimensions shown in millimeters.
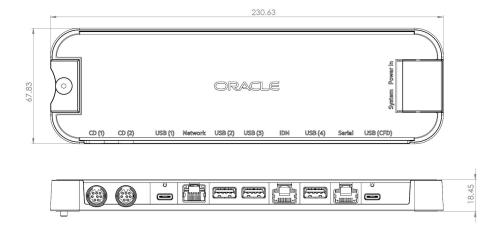
Peripheral Expansion Module Dimensions

> **Note:**
>
> All dimensions shown in millimeters.

12

Troubleshooting

This section provides instructions for general troubleshooting tasks.

Basic Troubleshooting

The following table contains descriptions and solutions for common problems encountered when installing or operating the Workstation 820.

Table 12-1   Basic Troubleshooting

| Problem	Possible Causes	Solution
The workstation does not start and does not show the splash screen.	No power to the workstation.	For configurations without the Peripheral Expansion Module: • Verify the Workstation 8 Series power supply is connected to the **Power In** port on the Workstation 820. For configurations with the Peripheral Expansion Module: • Verify the System cable is connected to the Workstation 820 **Power In** port and the **System In** port on the Peripheral Expansion Module. • Verify the Workstation 8 Series power supply is connected to the **Power In** port on the Peripheral Expansion Module. For all configurations: Verify your country-specific C5 power cord is fully inserted into the Workstation 8 Series power supply.
The workstation does not start. The operator LCD remains blank after 30 seconds.	The system board may be defective.	Contact your Oracle MICROS representative.

Table 12-1   (Cont.) Basic Troubleshooting

Problem	Possible Causes	Solution
The workstation does not connect to the Local Area Network.	The network cable is not connected. The workstation is connected to an inactive or improperly configured LAN port.	For configurations without the Peripheral Expansion Module: • Verify the Ethernet adapter cable for Oracle MICROS Workstation 8 Series is connected to the **Network** port on the Workstation 820. • Verify an Ethernet cable is securely connected to the Ethernet adapter cable for Oracle MICROS Workstation 8 Series and that the Ethernet cable is connected to an active Ethernet outlet/port. For configurations with the Peripheral Expansion Module: • Verify an Ethernet cable is connected to the **Network** port on the Peripheral Expansion Module and connected to an active Ethernet outlet/port.

13

Safety and Handling

This section contains important information regarding the safety, care, and handling of the Workstation 820.

Safety Agency Compliance Statements

Safety Precautions

For your protection, observe the following safety precautions when setting up your equipment:

- Follow all cautions and instructions marked on the equipment.

- Ensure that the voltage and frequency of your power source match the voltage and frequency inscribed on the equipment's electrical rating label.

- Never push objects of any kind through openings in the equipment. Dangerous voltages may be present. Conductive foreign objects could produce a short circuit that could cause fire, electric shock, or damage to your equipment.

- This product is intended for restricted access whereby access is controlled through the use of a means of security (for example, key, lock, tool, badge access) and personnel authorized for access have been instructed on the reasons for the restrictions and any precautions that need to be taken.

- Do not directly connect this product to outdoor metallic communications cables. Always connect the product to outdoor metallic communications cables using a protection device that is designed for direct connection to outdoor metallic communications cables (such as a switch or router), or use optical non-metallic communications cables upon leaving the building.

- Do not directly connect this product to outdoor power cables.

    – For AC Power, connect the product only to an indoor power distribution system that uses current-limiting circuit breakers for AC power.

    – For DC Power, connect the product only to earthed power systems that are completely contained within one building.

Modifications to Equipment

Do not make mechanical or electrical modifications to the equipment. Oracle is not responsible for regulatory compliance of a modified Oracle product.

Placement of an Oracle Product

Caution: Do not block or cover the openings of your Oracle product. Never place an Oracle product near a radiator or heat register. Failure to follow these guidelines can cause overheating and affect the reliability of your Oracle product.

SELV Compliance

Safety status of I/O connections comply with SELV requirements.

Power Cord Connection

Caution: Oracle products are designed to work with power systems having a grounded neutral (grounded return for DC-powered products). To reduce the risk of electric shock, do not plug Oracle products into any other type of power system. Contact your facilities manager or a qualified electrician if you are not sure what type of power is supplied to your building.

Caution: Not all power cords have the same current ratings. Do not use the power cord provided with your equipment for any other products or use. Household extension cords do not have overload protection and are not meant for use with computer systems. Do not use household extension cords with your Oracle product.

The following caution applies only to devices with a Standby power switch:

Caution: The power switch of this product functions as a standby type device only. The power cord serves as the primary disconnect device for the system. Be sure to plug the power cord into a grounded power outlet that is nearby the system and is readily accessible. Do not connect the power cord when the power supply has been removed from the system chassis.
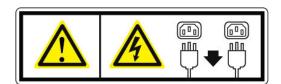
The following caution applies only to devices with multiple power cords:

Caution: For products with multiple power cords, all power cords must be disconnected to completely remove power from the system.

Figure 13-1   Disconnect Multiple Power Cords

Care and Handling

Equipment Placement

- Keep the Workstation 8 Series within an operating temperature between 0C (32F) and 50C (122F).

- If you are placing your equipment in an area adjacent to carpeting, use an anti-static grade of carpeting. If you do not have anti-static carpeting, use static discharge mats.

- Do not place equipment near food preparation areas, glass racks, or water stations. Although the Workstation 8 Series is highly spill resistant, take care to avoid using electrical equipment near water.

- Take precautions to prevent the accidental dropping of metallic objects such as paper clips and staples into the equipment.

Electromagnetic Interference

- Do not run exposed cables in the vicinity of AC power lines because the noise radiating from the AC power lines can be absorbed by Workstation 8 AC power and communication lines.

- Keep devices that emit RF energy, such as cordless phones, at least eight inches from the equipment or cable during operation.

Cleaning the Workstation 8

Use a damp lint-free cloth to clean the Workstation 8. A clean lint free cloth dampened with a 50/50 mix of isopropyl alcohol and water can be used as needed. Do not use products containing bleach, hydrogen peroxide, ammonia or abrasives.

- Use only a soft, lint-free cloth. Avoid abrasive cloths, towels, paper towels, or similar items.

- Avoid excessive wiping, which might cause damage.

- Don't get moisture into any openings.

- Don't spray cleaners directly onto the item.