



NCR Kitchen Controller 5 (1925)

User Guide



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Atlanta, Georgia, USA

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Preface

Audience

This book is written for store personnel, hardware installer/service personnel, system integrators, and field engineers.

Note

This document is NCR proprietary information and is not to be disclosed or reproduced without consent.

Safety Requirements

The NCR Kitchen Controller 5 (1925) conforms to all applicable legal requirements. To view the compliance statements see the *NCR HSR Servers Safety and Regulatory Statements (BCC5-0000-5096)*.

Caution

This product does not contain user serviceable parts. Servicing should only be performed by a qualified service technician.

AC Disconnect

Warning

A readily accessible and easily identifiable means of disconnecting power from the NCR Kitchen Controller 5 (1925) must be provided, such as a plug on the power cord, isolating switch, or circuit breaker incorporated in the building wiring.

Warning

Il est impératif d'avoir un moyen pour débrancher l'électricité. Ce moyen d'accès doit être visible et facile à identifier, du genre la prise de courant, le switch d'isolation, ou le disjoncteur incorporé dans l'installation électrique du bâtiment ou de l'immeuble.

Grounding Instructions

The Power Supply used with this product is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances. Do not modify the plug provided – if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the product's plug. **Repair or replace damaged or worn cords immediately.**

Out of Box Failure (OBF)

If you experience an out of box failure (OBF) during installation or staging that is related to a missing, wrong or defective unit or item, or damage to the frame/cabinet of the unit, contact NCR and provide a detailed description of the issue.

Note

Used equipment that experiences a failure does not qualify as an OBF and should go through the NCR warranty process.

To contact NCR, do any of the following:

- A. Send an email message to CustomerSat.Retail@ncr.com with the following details:
 - NCR Sales Order # (Sales Order # are located on the box)
 - Date of Product Installation
 - Product Model #
 - Unit Serial #
 - NCR part # of defective/missing/wrong component
 - Description of Failure (please be specific. For example: “display will not power on”)
 - Customer/Requestor’s contact name, phone number and/or e-mail address
 - Address to ship replacement part(s)

Note

Components of the NCR Kitchen Controller 5 (1925) can be replaced by an NCR Services technician.

B. Call or leave a voice message at:

- 1-800-528-8658 (USA)
- +1-770-623-7400 (International)

 **Note**

When leaving a message, please provide a phone number and/or an email address so NCR can contact you if additional details are needed.

Warranty

Warranty terms vary by region and country.

All parts of this product that are subject to normal wear and tear are not included in the warranty. In general, damages due to the following are not covered by the warranty.

- Improper or insufficient maintenance
- Improper use or unauthorized modifications of the product.
- Inadequate location or surroundings. Site installation must conform to guidelines listed in this document and the *NCR Workstation and Peripheral AC Wiring Guide* (BSTO-2115-53).

For detailed warranty arrangements, please consult your contract documents.

References

- *NCR Kitchen Controller 5 (1925) Site Preparation Guide* (BCC5-0000-5554)
- *NCR Kitchen Controller 5 (1925) Hardware Service Guide* (BCC5-0000-5556)
- *NCR Kitchen Controller 5 (1925) Parts Identification Manual* (BCC5-0000-5557)

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Revision Record

Issue	Date	Remarks
A	Feb 2022	Initial release
B	Mar 2022	Added a new PID (1925-2001-8801)
C	May 2022	<ul style="list-style-type: none">• Added an option for the Operating System• Corrected an error on the Operating Temperature• Added the Australian Power Cord• Updated the Wall Mounting Bracket kit to 1925-K010• Minor revisions on Weight and Dimension
D	Nov 2022	Added the following PIDs: <ul style="list-style-type: none">• 1925-0002-8801• 1925-0003-8801• 1925-1002-8801• 1925-1003-8801
E	Mar 2023	Converted to Guild template
F	Oct 2024	Converted to Voyix template

Product Overview

The NCR Kitchen Controller 5 (1925) is a solid-state kitchen controller that offers high performance, best-in-class power efficiency, simple serviceability, and optimized connectivity. It is built on Intel's next generation Elkhart Lake chipset and runs on Windows 10 2019 LTSC operating system. Its rugged brushed aluminum enclosure offers protection from the extreme temperature and humidity that are present in the kitchen environment.



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The NCR Kitchen Controller 5 (1925) is one of the components of the NCR Kitchen Production System (KPS). The KPS services the Quick Service Restaurant (QSR) and Table Service (TS) Hospitality retailers, and is also used in Convenience Store Kitchens and Entertainment Venue Concessions.

The Kitchen Production System is made up of the following hardware components:

- Kitchen Controller
- Kitchen Display (LCD monitor)
- Bump Bar
- Printer (optional)

The KPS is designed to display kitchen order information to a kitchen monitor. The orders originate from POS input and are sent to the Kitchen Controller through the 10/100/1000 Mbps network interface. As each order is completed, the user can “bump” or

delete the order from the queue by using the attached Bump Bar. Order information can also be printed by attaching a printer to the Kitchen Controller.

Product IDs

Product ID	Description
1925-0000-8801	KC5 Win10 2019 Embedded 64bit 120GB Storage 8GB RAM US Power AED Svc
1925-0001-8801	KC5 Win10 2019 Embedded 64bit 120GB Storage 8GB RAM US Power WCS Svc
1925-0002-8801	KC5 Win10 2021 Embedded 64bit 120GB Storage 8GB RAM US Power AED Svc
1925-0003-8801	KC5 Win10 2021 Embedded 64bit 120GB Storage 8GB RAM US Power WCS Svc
1925-1000-8801	KC5 Win10 2019 Embedded 64bit 120GB Storage 8GB RAM INTL Power AED Svc
1925-1001-8801	KC5 Win10 2019 Embedded 64bit 120GB Storage 8GB RAM INTL Power WCS Svc
1925-1002-8801	KC5 Win10 2021 Embedded 64bit 120GB Storage 8GB RAM INTL Power AED Svc
1925-1003-8801	KC5 Win10 2021 Embedded 64bit 120GB Storage 8GB RAM INTL Power WCS Svc
1925-2000-8801	KC5 China/India Win10 2019 Embedded 64bit 120GB Storage 8GB RAM INTL Power AED Svc
1925-2001-8801	KC5 China/India Win10 2019 Embedded 64bit 120GB Storage 8GB RAM INTL Power WCS Svc

Features and Benefits

Feature	Benefit
Dedicated device for food production	<ul style="list-style-type: none"> • Direct link to order entry application.
Solid-state design	<ul style="list-style-type: none"> • No moving parts, for high reliability. Functions even in the event of loss of connection with back office system. • Reduces downtime for operators.
Display for food production purpose only	<ul style="list-style-type: none"> • Only displays orders and instructions relative to food preparation. • Improves order accuracy and speed of service.
Flexibility	<ul style="list-style-type: none"> • Provides two RJ12 serial powered ports to connect a bump bar, printer, or other serial peripherals. • Provides four USB 3.1 powered ports to connect peripherals or wireless adapter. • Provides one Display Port to connect to a kitchen monitor. • Provides one RJ45 LAN port to connect to a network.
Standard VESA mounting bracket	<ul style="list-style-type: none"> • Mount to wall, counter, or to any standard VESA monitor mount
Controller display LEDs	<ul style="list-style-type: none"> • Excellent diagnostic support for networking, CPU, display, and power.
Bump Bar allows user to remove orders from monitors and recall previous orders	<ul style="list-style-type: none"> • Improves accountability and thus reduces waste due to inaccuracy. • Improves speed of service by allowing all employees to input or cycle orders.
Small form factor	<ul style="list-style-type: none"> • Designed for minimum space requirements and to withstand the harsh temperature and humidity of the kitchen environment
Intuitive design	<ul style="list-style-type: none"> • The I/O ports are all located on the rear panel for improved cable management and a cleaner install. The front panel features five LEDs (Power, Status, HDD, Activity, and Link) that can be used to quickly determine the status of the controller. Also located on the front panel is a large power button for easy access.

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Technical Specifications

Feature	Specification
Processor	Intel Elkhart Lake SoC processor
Memory	Support for 1 x 260 pin DDR4L SODIMMs, 3200MT/s max unbuffered <ul style="list-style-type: none"> • 4GB RAM DDR4 • 8GB RAM DDR4
Storage	Support for M.2 Storage Modules <ul style="list-style-type: none"> • 120GB SATA
Operating System	<ul style="list-style-type: none"> • Windows 10 IoT Enterprise 2019 LTSC (64 bit) (UEFI Only) Entry Embedded OS • Windows 10 Enterprise 2021 LTSC (64 bit) (UEFI only) Entry embedded OS
Serial Connection	<ul style="list-style-type: none"> • Two full RS232 serial port on rear IO, 6-pin RJ12 connector • RTS pin provides 1A of 12V power per port. +12V power protected by resettable fuses on board (Poly switch F1812H1_25Z) • Uses NCT5525D SuperIO with enhanced serial support
USB	Support for SuperSpeed+, Hi-Speed USB devices with USB port disable <ul style="list-style-type: none"> • 4 x USB 3.1 ports on rear IO right angle connector (blue) • 5V VBUS on all ports protected by current limit switch
Video	Intel integrated graphics subsystem, DisplayPort++ right angle vertical connector
Audio	HS-100B Audio Codec <ul style="list-style-type: none"> • Headphone out
LAN Support	10/100/1000 Mbps Ethernet support using Intel WGI210AT Ethernet controller, RJ45 connector
Power Supply	<ul style="list-style-type: none"> • 24W output power wall wart US supply • 60W output power inline International supply

Feature	Specification
LED Indicators	Power, Status, HDD, Activity, and Link LEDs on the front panel
Wireless	Optional through external USB adapter
Mounting Brackets	Yes (optional)
Dimensions	<ul style="list-style-type: none"> • Length: 8.12 in. (20.62 cm) • Width: 5.91 in. (15.01 cm) • Height: 1.77 in. (4.49 cm)
Weight	2.54 lb (1.15 kg)
Operating Temperature	5°C to 40°C (41°F to 104°F), dry bulb
Storage Temperature	-10°C to 50°C (14°F to 122°F), three months <div style="background-color: #e0f2e0; padding: 5px; border-radius: 5px;"> <p>Note The unit must be in its original pack material in humidity controlled environment.</p> </div>
Shipping Temperature	-40°C to 60°C (-40°F to 140°F), one week
Humidity	<ul style="list-style-type: none"> • 10% to 90% in operating and storage range • 5% to 95% in transit range

International AC Power Cords

 **Note**

Not included with international NCR KC5 Product IDs.

PID	Description
1639-K030	UK Power Cord
1639-K035	Cont. Europe Power Cord
1432-C553-0030	India Power Cord
1416-C322-0030	Australian Power Cord

Hardware Design and Components

The NCR KC5 is designed with rubber caps on each end that help seal the internal components from the outside environment. The rubber caps also act as non-skid feet for the controller and provide excellent balance so that the unit can stand stably on any side.

Front Panel LEDs

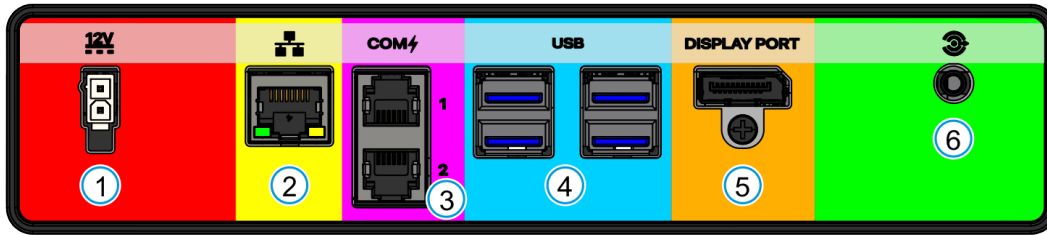


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LED	Description
Power	<p>Indicates the power state of the unit.</p> <ul style="list-style-type: none"> No light—no power to the unit Red—S5, suspend supplies are on and working Blue—S3, standby supplies are on and working Green—S0, all supplies are on and working
Status	<p>Indicates the state of the boot process.</p> <ul style="list-style-type: none"> No light—no power to the unit or BIOS has not started Solid Red—BIOS has started running Flashing Red—BIOS POST error or boot has halted Solid Green—BIOS is loading OS Flashing Green—OS is loaded and NCR drivers are running
HDD	<p>Indicates activity of the hard drive or SSD.</p> <ul style="list-style-type: none"> No light—no activity Solid Green—HDD or SSD is processing data

LED	Description
Activity	<p>Indicates network activity and has the same indication with the LAN port LED.</p> <ul style="list-style-type: none"> • No light—no network connection • Solid Green—connected to a network
Link	<p>Indicates link activity and has the same indication with the LAN port LED.</p> <ul style="list-style-type: none"> • No light—no link activity • Solid Green—10/100Mbit Ethernet link up • Solid Orange—1000Mbit Ethernet link up • Flashing Orange—Ethernet transmission is active

Rear Panel I/O Ports



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Connector		Description
1	12V Port	DC input supporting 12 VDC +/- 10% through a 2-pin power connector
2	LAN Port	8-pin RJ45 10/100/1000 Mb Ethernet connector with Speed/Link LEDs
3	Dual stack Serial Port	6-pin RJ12 RS232 port
4	2 x Dual stack USB 3.1	Standard USB 3.1 external ports
5	Display Port	Right angle DP++ standard external connector
6	Audio Out	3.5mm audio jack

Other Hardware Components

Power Cord and Brick

The brushed aluminum enclosure and the design of the power cord and brick offer several key benefits to the kitchen environment. The universal power supply features a locking input connector to prevent unintentional detachment from the unit. The power plug for the wall or ceiling outlet is small enough and oriented in a manner to prevent covering multiple outlets. Additionally, the weight of the power brick is light enough so that it does not pull away from the outlet. For International installs, there is a separate power supply, which has a detachable AC power cord that can be interchanged for different regions.

Expansion Options

Expansion options are available through the use of the USB 3.1 ports. Wireless networking is available as an upgrade by installing a wireless adapter in the USB port. Video support for the KPS system is offered through the Display Port on the Controller. The screen resolutions supported by the NCR KC5 are from 640 x 480 pixels through 1920 x 1200 pixels.

Bump Bar

Used to interact with the Kitchen Controller, the Bump Bar is also built with a rugged aluminum enclosure designed to function in a kitchen environment. Rubber end caps protect both sides of the unit and the serial connector from the ingress of debris. The end cap can be removed to access the serial connector without the need for any tools.

The Bump Bar features a volume adjustable speaker to allow for alert beeps and key beeps to be heard in a noisy environment. Each key is programmable to a predefined function list to provide the most flexible solution for each customer's operation. The Bump Bar also includes mounting brackets on both sides that allow it to be mounted to NCR brackets or other surfaces.

Mounting Options

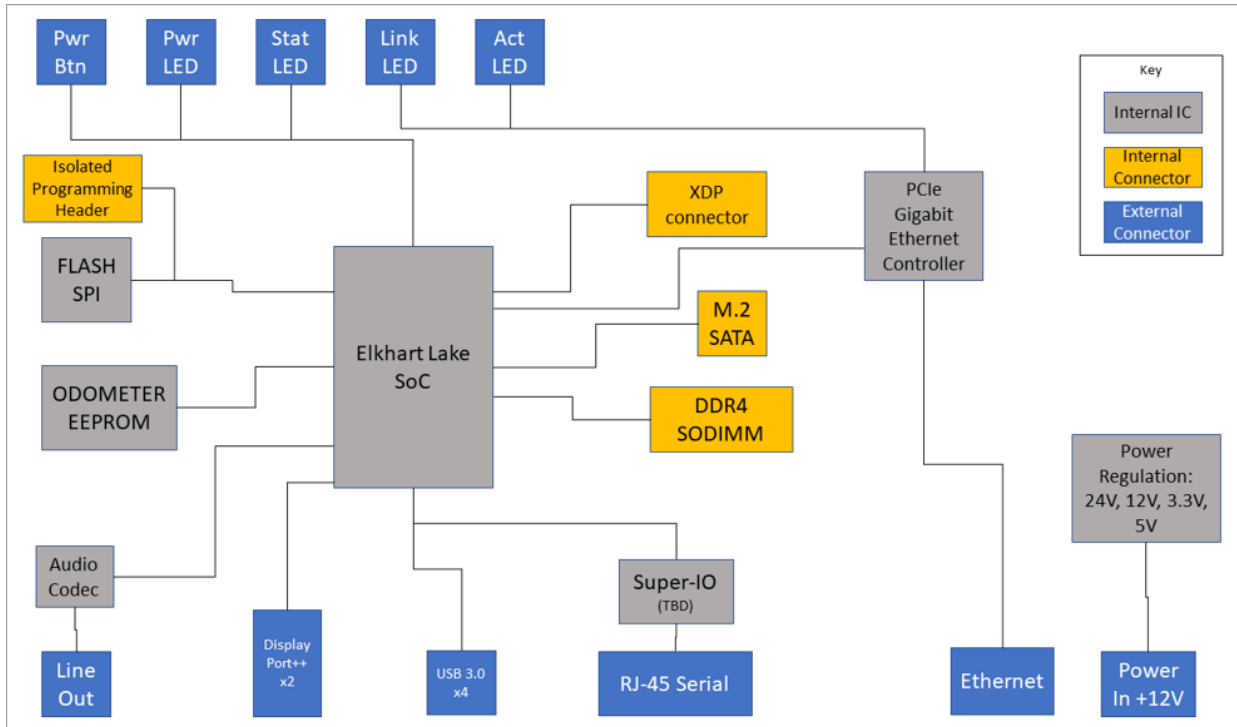
NCR offers small footprint standard VESA mounting options for installing the KPS hardware components in space-constrained kitchen stations. These options include an integration bracket that can be combined with a variety of mounting solutions to allow mounting to a countertop, wall, or ceiling. Customers can select the mounting system that works best in their environment. None of the options are required to install KPS components, though these options typically provide a better installation. For more information on mounting options, ask your NCR representative or refer to the [NCR Kitchen Mounting Guide](#).

Additional Kit Options

Number	Description
1925-K000	KC5 US Power Supply Kit
1925-K001	KC5 International Power Supply Kit
1925-K003	KC5 120GB Storage Kit
1925-K004	KC5 4GB RAM Kit
1925-K006	KC5 8GB RAM Kit
1925-K010	KC5 Wall Mounting Bracket
1668-K048	KC5/KC4 Quick Release Integration Bracket

System Technical Features

The NCR KC5 motherboard is based on SoC Intel's Elkhart Lake Platform. It has custom form factor with I/O connectors optimized for use across NCR Retail and Hospitality Products.



Installation Notes

Footprint

An area of no less than 11 inches x 7 inches is necessary to properly install the NCR KC5. This will accommodate the unit as well as its associated mounting hardware.

Mounting Brackets

The NCR KC5 can be mounted using NCR kitchen integration brackets, or to a wall using the wall mount bracket. The integration brackets offer VESA standard mounting holes that can connect to an LCD monitor mount. The brackets help prevent cable management issues and minimize the chance for theft.

The NCR KC5 can be mounted horizontally or vertically depending on the amount of space available at each site location. The I/O ports should be kept vertical, angled towards the floor surface, or completely facing down to avoid any liquids or debris from building up or flowing in the ports.



Note

The NCR KC5 can be used with all previous generations NCR KC4 brackets. These brackets can be found in the [NCR Kitchen Mounting Guide](#).

Power

The NCR KC5 has an external power supply. Source power is drawn from a regular AC wall outlet. The universal power brick can accept 115V or 230V and does not have to be manually switched. Please consult your power company if you are not sure of the voltage rating in your country.

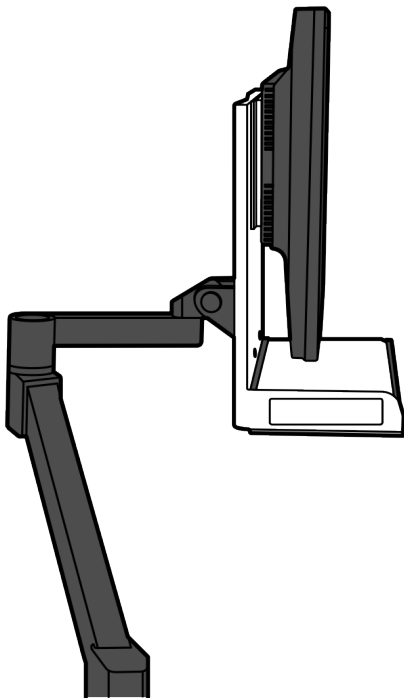
Moisture

The NCR KC5 is not waterproof. It should not be sprayed directly, as the force of pressurized water could potentially invade the enclosure through the holes located on the front or rear panels around the LEDs, power button, or I/O ports. Accordingly, Kitchen Controllers should not be installed in areas where they might be exposed to direct water spray. The NCR KC5 is not meant for outdoor installation.

Setting Up the NCR KC5

For the Kitchen Production System (KPS) to fully function, the following hardware components must be set up:

- Kitchen Controller
- Kitchen Display (LCD monitor)
- Bump Bar
- Printer (optional)



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Note

The image above is an example of a KPS solution with the optional Integration Bracket and Radial Arm.

Connecting the Hardware Components

This section provides procedures in setting up the hardware components of the NCR Kitchen Production System.

Note

For information on I/O ports, refer to "[Rear Panel I/O Ports](#)" on page 10.

Power Supply

The NCR KC5 has an external power supply. Source power is drawn from a regular AC wall outlet.

The universal power supply features a locking input connector to prevent unintentional detachment from the NCR KC5. For International installs, the power supply used has a detachable AC power cord that can be interchanged for different regions.

- To connect the power supply to the NCR KC5, connect the power supply cable to the DC In connector on the rear I/O panel.

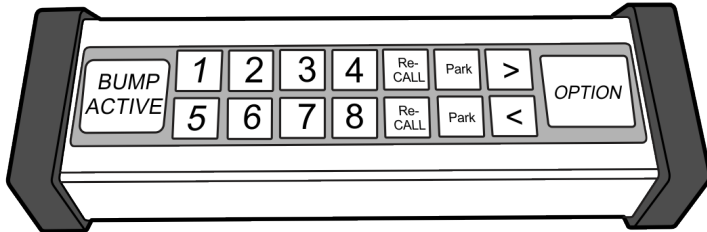
Kitchen Display

The NCR KC5 supports independent graphics output from the Integrated Graphics of the CPU.

- To connect the Kitchen Display or a monitor to the NCR KC5, connect the display cable to the Display Port on the rear I/O panel.

Bump Bar

With the KPS Bump Bar, the user can “bump” or delete an inputted order from the queue. The Bump Bar is powered through the serial port from the kitchen controller.



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- To connect the Bump Bar to the NCR KC5, connect the bump bar cable to one of the Serial ports on the rear I/O panel.

Printer

Order information can be printed by attaching a printer to the NCR KC5.

- To connect a printer to the NCR KC5, connect the printer cable to one of the USB ports on the rear I/O panel.



Note

Refer to the printer user manual to determine the type of port connection required for the printer.

Network

The KPS is designed to display kitchen order information to a Kitchen Monitor. The orders originate from POS input and are sent to the Kitchen Controller through the 10/100/1000 Mbps network interface.

- To connect the NCR KC5 to a network, connect the LAN cable to the Ethernet port on the rear I/O panel.

Operating the NCR KC5

Starting Up

To turn on the NCR KC5, follow these steps:

1. Connect the power cable to the NCR KC5.
2. Press the power button located on the front panel.

Note

For more information on the power status of the unit as indicated by the Power LED, refer to "[Front Panel LEDs](#)" on page 8.

Shutting Down

- To turn off the NCR KC5, press the power button on the front panel.

Cleaning the Hardware Components

The Kitchen Controller is not waterproof. The Kitchen Controller should not be sprayed directly, as the force of pressurized water could potentially invade the enclosure through the holes located on the front or rear panels around the LEDs, power button, or I/O ports. Each component of the KPS system may be cleaned using a damp cloth with water or mild soap.

Warning

Do not use abrasive cleaners (powders) or abrasive cleaning materials (scrub brush, scouring pad).

Caution

Before using the unit, ensure that it is completely dry.

Servicing the Controller

The NCR Kitchen Controller 5 (1925) is serviced at the feature (whole unit) level. Should the unit require service, contact NCR support and/or Field Services using the contact details provided in the Preface.