

SITE PREPARATION GUIDE

NCR P1235 POS (7745)

Release 1.0



BCC5-0000-5057

Issue A



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Preface

Audience

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

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Safety Requirements

The *NCR P1235 POS* conforms to all applicable legal requirements. To view the compliance statements see the [*NCR HSR POS Terminals Safety and Regulatory Statements*](#) (B005-0000-5069).



Caution: The on/off switch is a logic switch only. The AC line voltage primaries are live at all times when the power cord is connected. Therefore, disconnect the AC power cord before opening the unit to install features or service this terminal.

Lithium Battery Warning



Warning: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type as recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.



Attention: Il y a danger d'explosion s'il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d'un type recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

Battery Disposal (Switzerland)

Refer to Annex 4.10 of SR814.013 for battery disposal.

IT Power System

This product is suitable for connection to an IT power system with a phase-to-phase voltage not exceeding 240 V.

Peripheral Usage

This terminal should only be used with peripheral devices that are certified by the appropriate safety agency for the country of installation (UL, CSA, TUV, VDE) or those which are recommended by NCR Corporation.



Warning: DO NOT connect or disconnect the transaction printer while the terminal is connected to AC power. This can result in system or printer damage.



Warning: DO NOT connect or disconnect any serial peripherals while the terminal is connected to AC power. This can result in system or printer damage.

Grounding Instructions

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. 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. Improper connection of the equipment-grounding conductor can result in a risk of electric shock.

The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor.

If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal. Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if you are in doubt as to whether the product is properly grounded.

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 related to a missing, wrong or defective unit or item, simply provide NCR with a detailed description of the issue and the item will be replaced free of charge. For assistance with this process send an email 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)

Transport the product in its original packaging to prevent impact damages.

If you do not have access to a computer, you may leave a voice message at: 1-800-528-8658 (USA), or (International) +1-770-623-7400. When leaving a message, please provide a phone number and/or an email address so NCR can contact you if additional details are needed.



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

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 the NCR P1235 Site Preparation Guide and the [NCR Workstation and Peripheral AC Wiring Guide](#) (BST0-2115-53).

For detailed warranty arrangements please consult your contract documents.

Returning Defective Hardware for Service

Use the following procedure to report/return defective hardware.

Call the *NCR Customer Care Center* at 1-800-262-7782 and have the following information available when you place the call.

- Class/Model number of the defective equipment
- Serial Number of the defective equipment
- Equipment location in the store
- Description of the problem, including any system error codes, error condition, or guidance to the area of failure.

The NCR Agent will provide you with a work order number, which serves as your Return Material Authorization (RMA). Please provide the RMA on the outside of the shipping box.



Note: A work order must be opened for each device that is shipped for repair.

References

- *NCR P1235 POS (7745) User Guide (BCC5-0000-5058)*
- *7745 Service Guide (BCC5-0000-5059)*
- *7745 PIM (BCC5-0000-5060)*

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Revision Record

Issue	Date	Remarks
A	June 2016	First Issue

NCR P1235 POS Site Preparation

Introduction



This chapter provides the information necessary to prepare a site to NCR specifications prior to installing an NCR P1235 POS terminal. Prepare the site properly before installing the terminal.

This is a contractual document. It contains important warnings and confers important legal rights and obligations. You are advised to read it carefully.

It is the responsibility of the customer to ensure that all installation preparations are complete and in compliance with NCR specifications and requirements and all applicable national, state, or local codes, regulations, and laws.

About this Document

This document provides site preparation information for *NCR P1235 POS* components but does NOT provide Peripheral component and AC wiring site preparation information.

This chapter contains the information necessary for the preparation of a site conforming to the NCR specifications. It is very important that the site complies with the requirements specified in the document because, once the equipment has been installed, deficiencies in site preparation or the problems caused by these deficiencies are much more difficult to detect and correct. Further, failure to comply with these requirements or to take proper steps to protect equipment against risks identified in this document may cause serious damage to the equipment and to the customers business.

In addition to the need to comply with the requirements specified, electrical wiring and mechanical systems must also comply with all relevant codes, laws, and regulations.

It is important that a customer or his agent who is fully conversant with the special requirements of electronic equipment prepare the site. The responsibility of ensuring that the site is prepared in compliance with this document remains with the customer.

For information and guidance purposes only, a list is provided, in general terms, of those matters for which the customer is responsible. This list does not intend to be comprehensive, and in no way modifies, alters, or limits the responsibility of the customer for all aspects of adequate site preparation.

NCR staff is available to answer questions relating to the contents of this document except where:

- a customer has been notified that a full or partial consultancy service is available and/or that NCR is willing to undertake a preliminary or final site survey and
- the customer shall have entered into a formal contract with NCR for provision of the same.

No comment, suggestion, or advice offered or not offered about preparation of the site nor any inspection of the site whether before or after preparation is to be taken as approval of the location of the site and equipment or its preparation and NCR is not liable in respect of any comment, suggestion, or advice given by its staff or in respect to any failure to give advice.

Finally, only the customer can know the full extent of damage, which may be caused to his business because of failure of the equipment that is to be installed. For this reason, it is the customer's responsibility to ascertain the extent of any possible damage to his existing or planned business, and to effect full insurance in respect of it.

Customer Responsibilities

Before installing the system, the customer must perform or provide the following:

- When required by NCR, provide the NCR Customer Services representative with appropriate drawings that indicate:
 - Equipment location
 - Site wiring (power and communications, paths and lengths)
 - Location of other equipment that may generate electrical noise, electromagnetic interference, or heat
- Make building alterations necessary to meet wiring and other site requirements
- Provide and install all communications cables, wall jacks, special connectors, and associated hardware
- Provide and install necessary power distribution boxes, conduits, grounds, lightning protection devices, and associated hardware
- Ensure all applicable codes, regulations, and laws (including, but not limited to, electrical, building, safety, and health) are met
- Provide and install auxiliary power or other equipment as required
- Provide storage or service areas as required
- Meet all system or unit environmental requirements
- Provide and install floor coverings and environment systems that limit or control static electricity build-up and discharge

In general, keep the NCR equipment area free from dust, smoke, lint, and other particles. Avoid locating the equipment near other machines that generate ink, carbon, and paper dust particles.

LAN Communications

The NCR P1235 Terminal supports Ethernet 10/100/1000baseT Local Area Network (LAN) communication protocol. For Ethernet communications wiring specifications, refer to the [*NCR Ethernet Communication Wiring Guide*](#) (BST0-2118-82).

Environmental Requirements

Barometric Pressure

The terminal operates within the following barometric pressure conditions:

- Maximum operating altitude: 3,000 m (9,843 ft.)
- Operating range of pressure: 105 to 69 kPa (15.2 to 10.0 lb./in.)

Temperature

The terminal operates over the temperature ranges shown below. Avoid continuous operation at, near the indicated temperature extremes, or in locations where the temperature changes beyond the restrictions.

Temperature Parameter	Restriction
Operating	0°C to 40°C (32°F to 104°F), dry bulb
Storage	0°C to 45°C (32°F to 113°F), three months
Shipping	-40°C to 60°C (-40°F to 140°F), one week

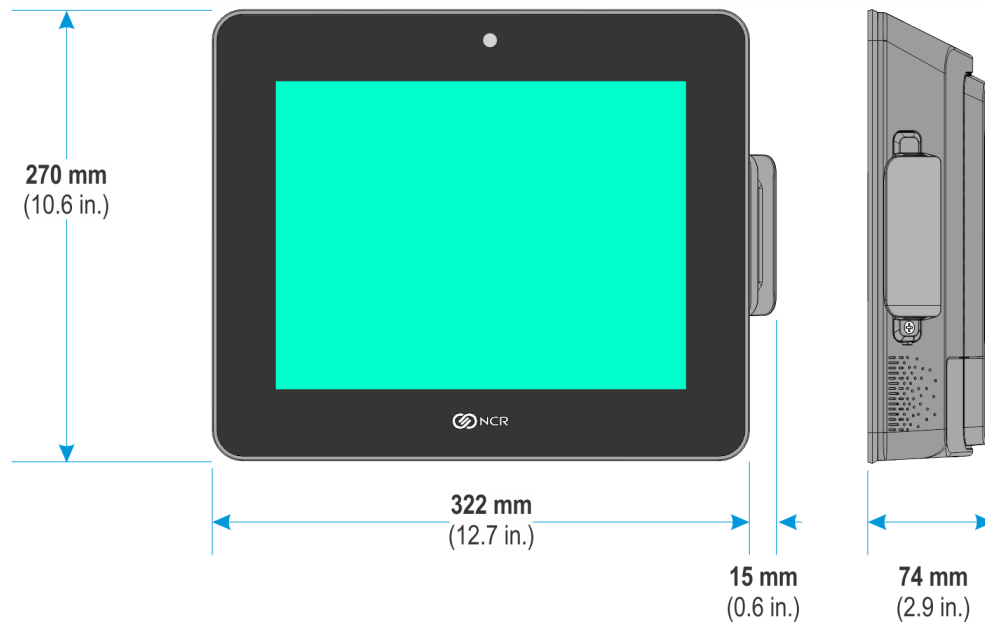
Humidity

The terminal operates within the humidity ranges shown below. Avoid continuous operation at, near the indicated humidity extremes, or in locations where the humidity changes beyond the restrictions. Never expose the terminal to condensation.

Humidity Type	Restriction
Relative	5% to 85%, non-condensing
Maximum change rate	10%/60 minutes
Storage	10% to 90% relative humidity, three months
Shipping	5% to 95% relative humidity, one week

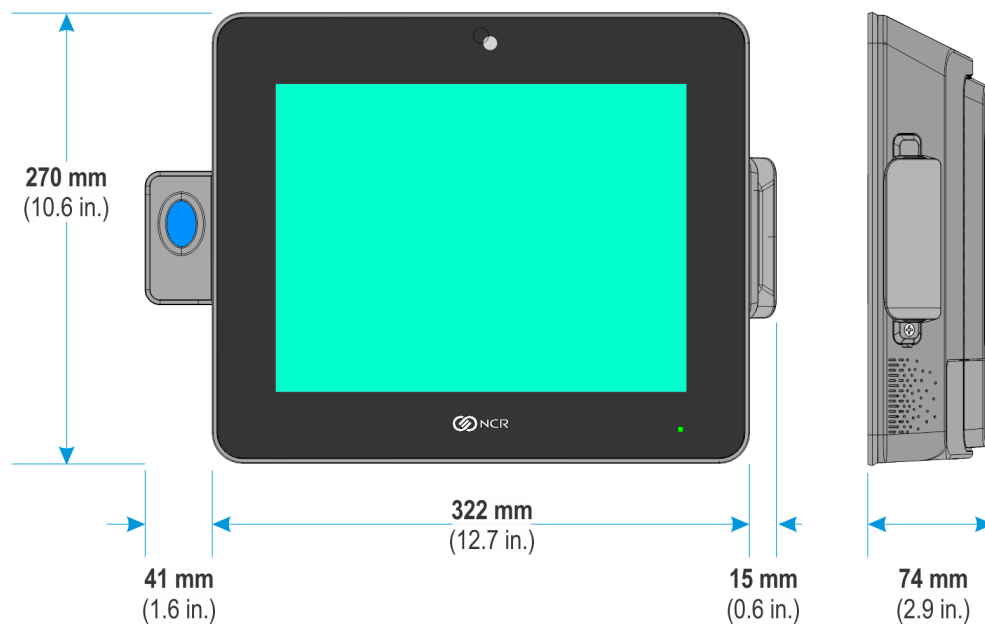
POS Dimensions

7745 Terminal with MSR



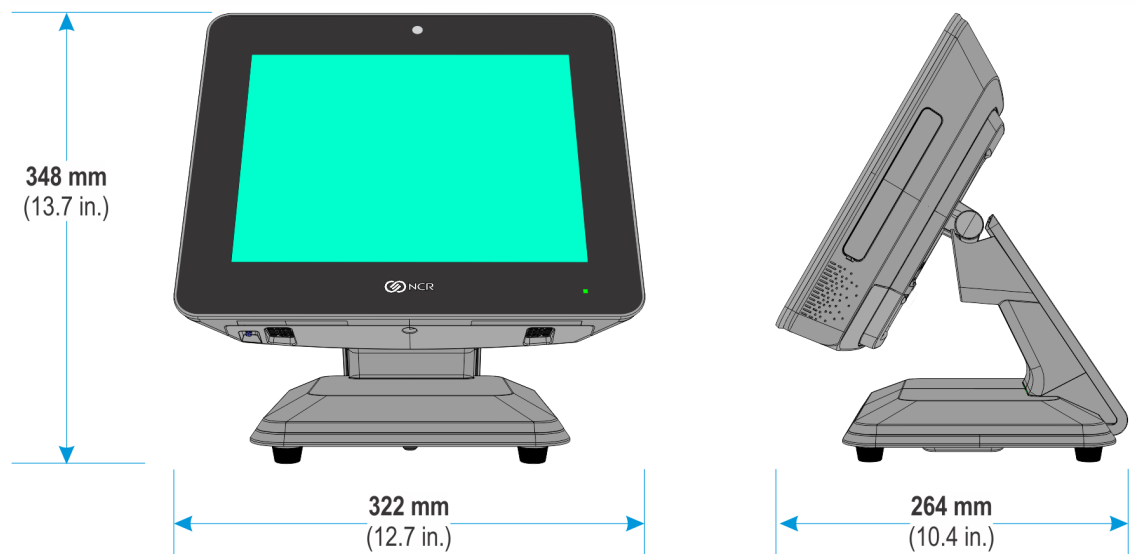
60597

7745 Terminal with MSR and Sidecar



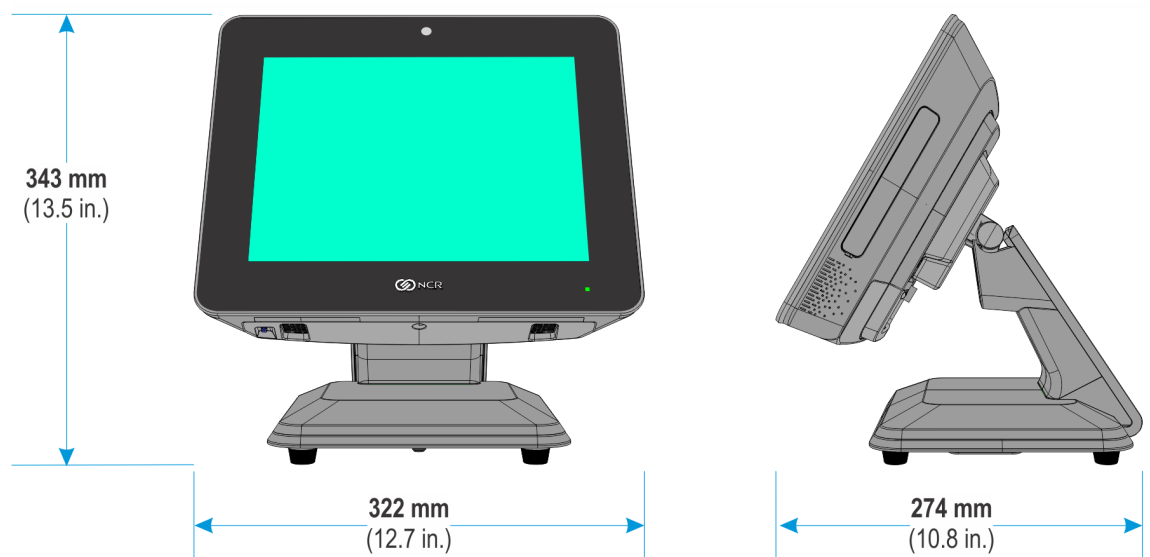
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7745 Terminal on the P-Series Stand



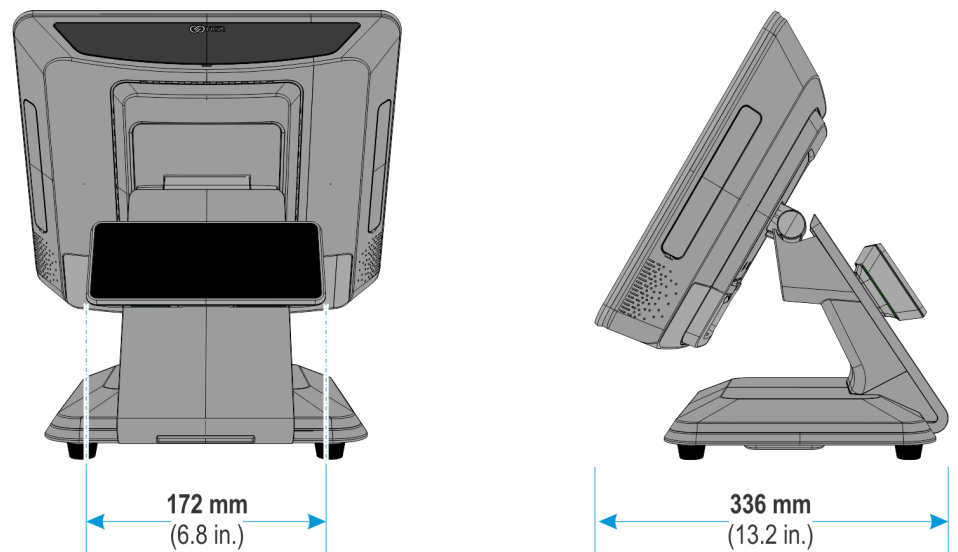
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7745 Terminal with Expansion on the P-Series Stand



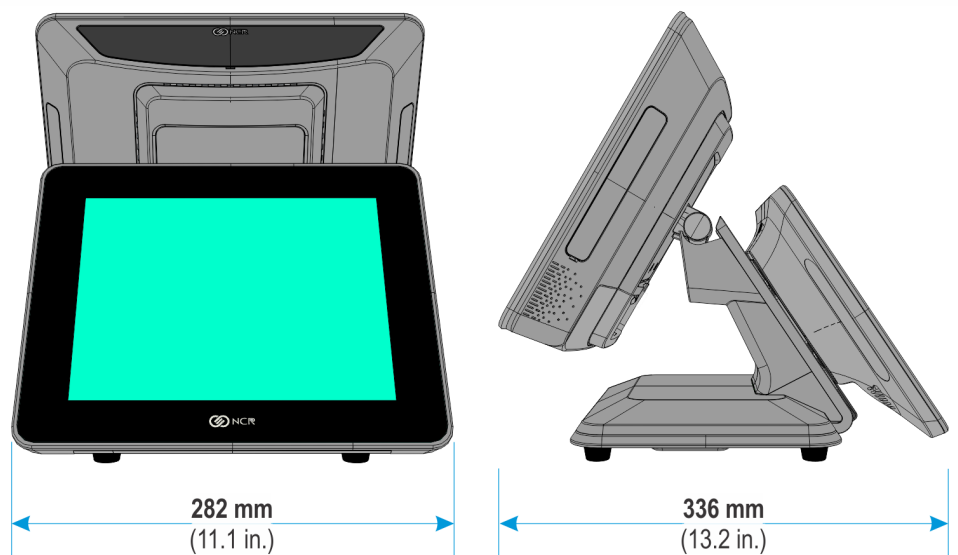
61021

2x20 LCD Customer Display Attached to the P-Series Stand (7745-F460)



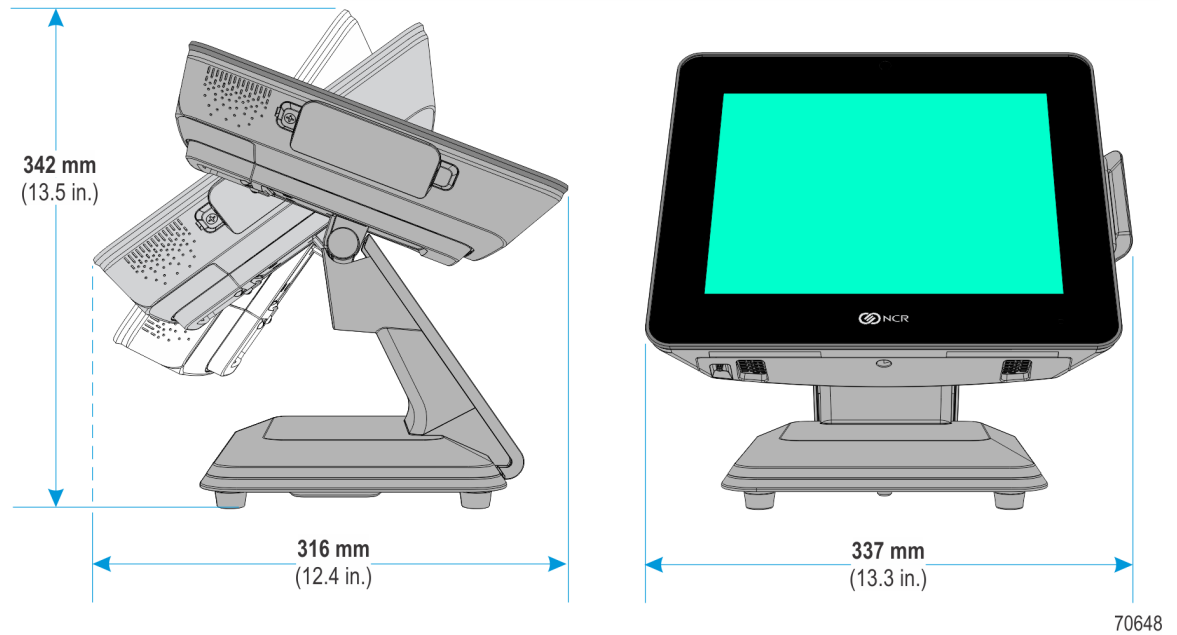
61022

XD10 LCD Customer Display Integrated to the P-Series Stand (7745-F461)

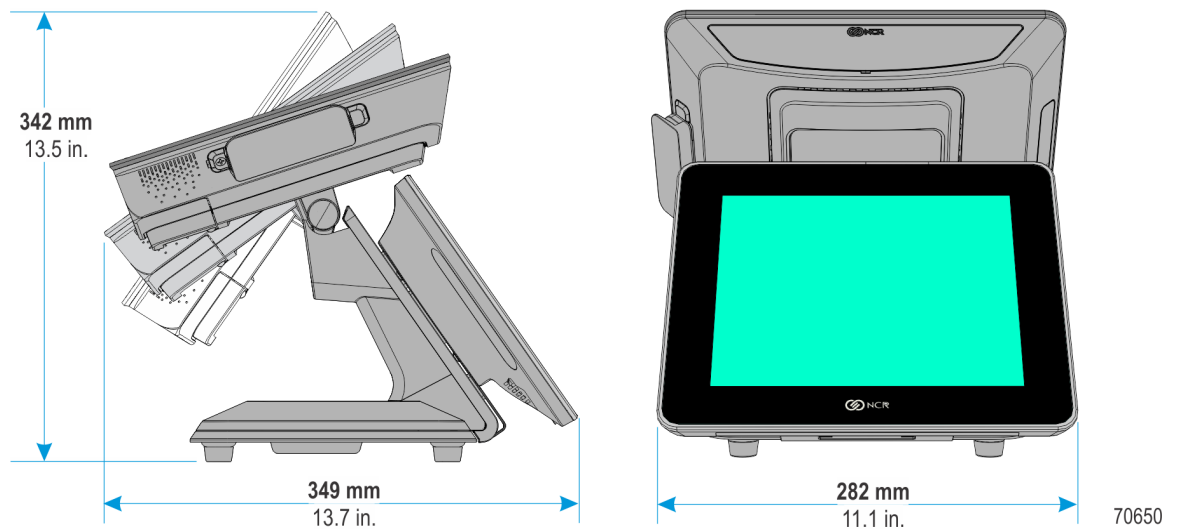


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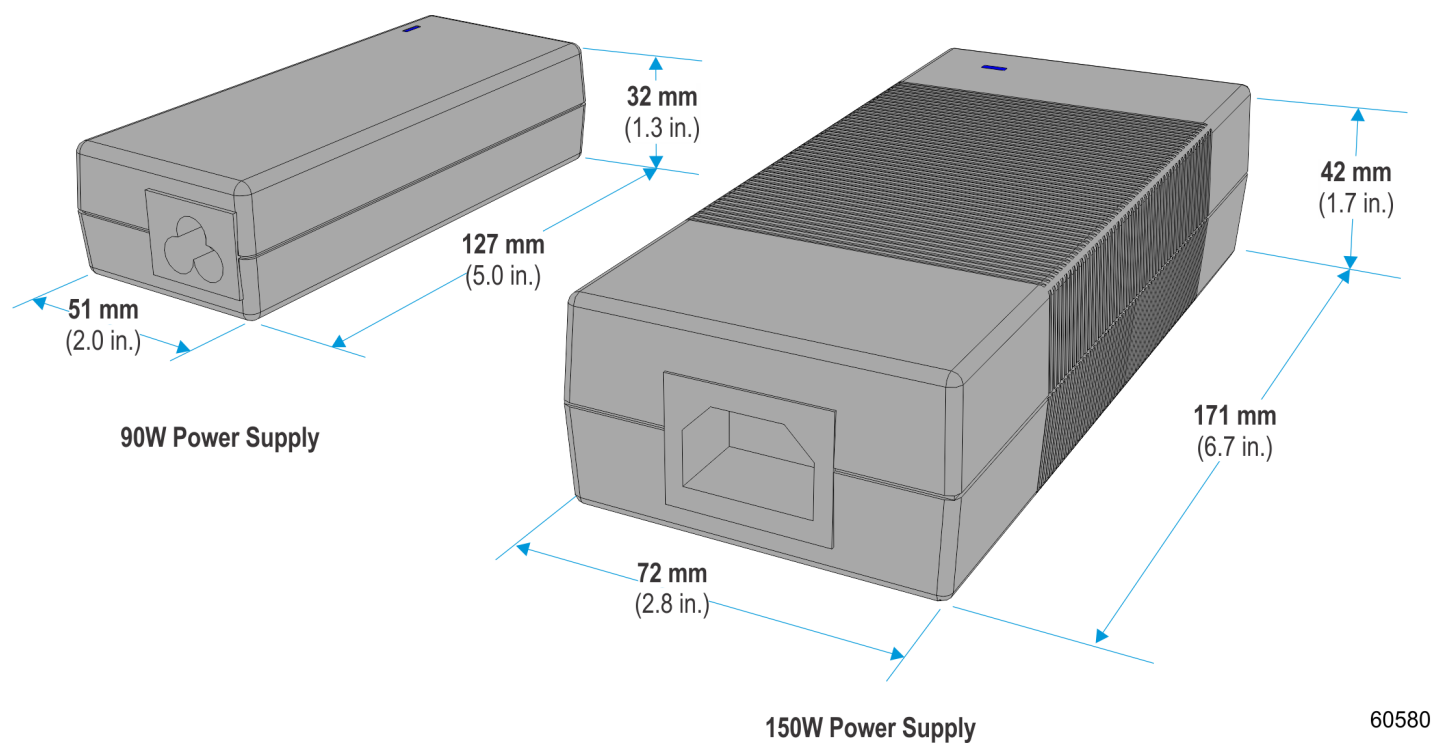
P-Series Mount Envelope through Tilt Angle (3° to 111°)



XD10 LCD Customer Display Integrated to the P-Series Stand Envelope through Tilt Angle (3° to 75°)



Power Supply Dimensions



Terminal Weight

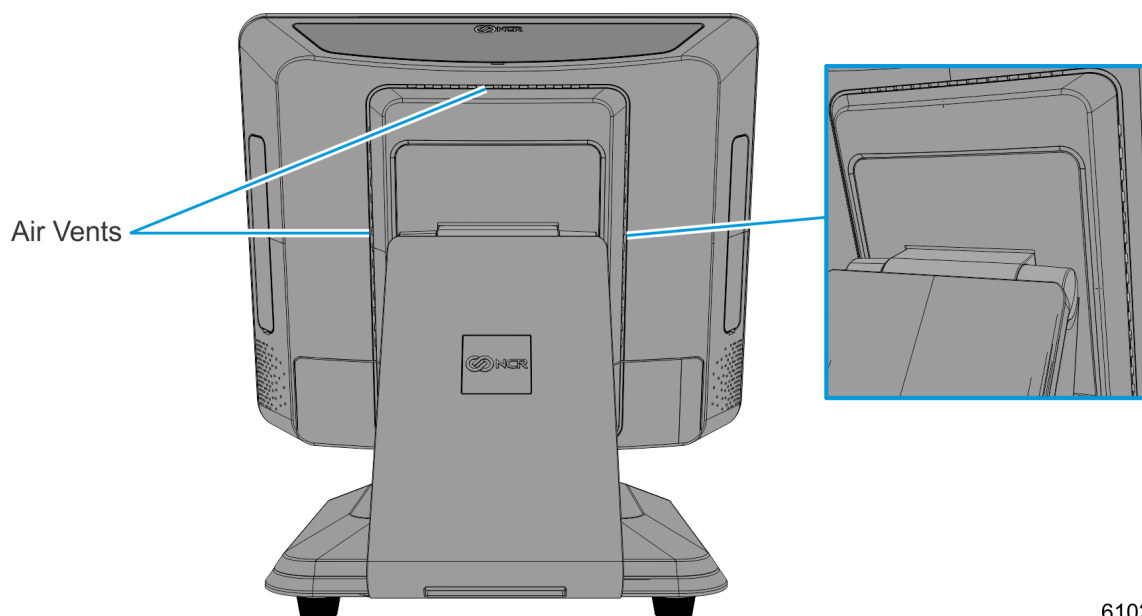
Component	kg	lbs.
P1235 POS (No Stand)	3.63	8
P1235 POS with P-Series Stand	6.35	14
P1235 POS with P-Series Stand and Extended Customer Display Options	9.89	21.8

Shipping Weight and Dimensions

Component	kg	lbs.	Length x Width x Height
P1235 POS (No Stand)	5.44	12	20.00 x 18.50 x 7.25 in.
P1235 POS with P-Series Stand	8.62	19	20.00 x 18.50 x 13.25 in.
P1235 POS with P-Series Stand and Extended Customer Display Options	12.16	26.8	20.00 x 18.50 x 16.25 in.

Airflow Requirements

Do not block the air vents on the terminal or peripherals. These vents are necessary for cooling.



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Do not place the terminal in an enclosed area where sufficient ventilation is not available. Leave at least 100 mm (4 inches) of clearance from air vents.

When the terminal is wall-mounted, the rear cover must have at least 6 mm (0.25 in.) clearance from the wall. The mounting mechanism must not block the vent holes on the rear cover.

Electrical Requirements

Terminal Power Requirements

The terminal's power supply can supply 90 Watts or 150 Watts and provides power to the terminal and its powered peripherals.

Power Supply	Range	Input Current Max. Arms
90 Watts	LOW (115)	1.5 A
	HIGH (230)	0.8 A
150 Watts	LOW (115)	2.2 A
	HIGH (230)	1.2 A



Caution: Locate the power supply away from other electrical equipment, away from heat sources, away from possible liquid spills, and where there is adequate clearance for cooling.

Peripheral Power Requirements

The number of peripherals that the terminal can support is dependent upon which peripherals are connected. For planning purposes, use the [NCR P1235 POS \(7745\) Power Budget Matrix](#) (497-0511085 A) for details on total power distribution.



Note: This file requires Microsoft Excel to run.

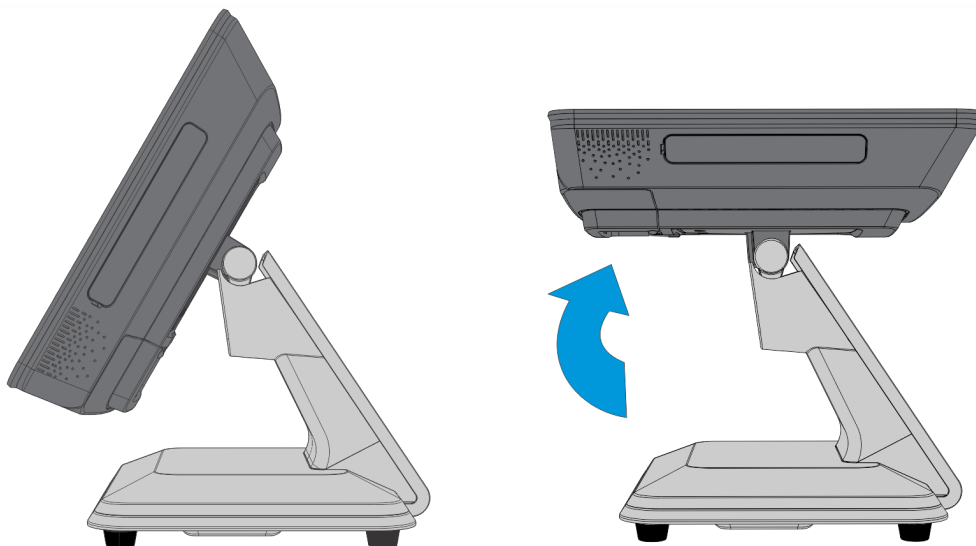
AC Store Wiring Requirements

The customer must provide suitable AC power for the terminals, associated equipment, and devices. We recommend a dedicated unswitched power line dedicated to the NCR equipment installation. Refer to the *NCR Workstation and Peripherals AC Wiring Guide* (BSTO-2115-53) for store AC wiring requirements. The AC outlet must be installed near the terminal and easily accessible to the operator.

Cable Routing

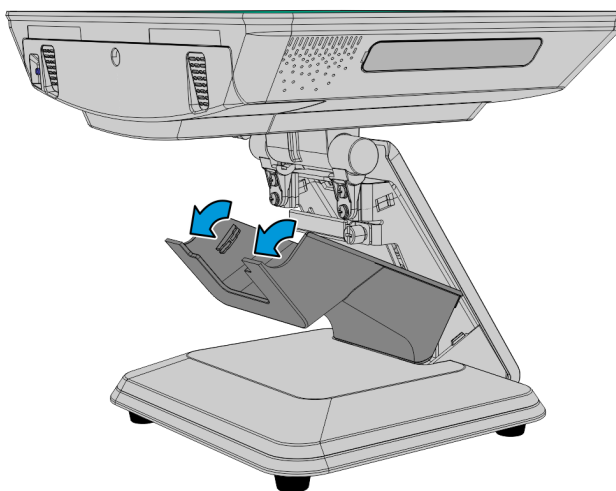
Peripheral cable connectors are located in an opening on the bottom of the terminal. The cables are routed into the opening and up through the Terminal Stand.

1. Pivot the display toward the back.



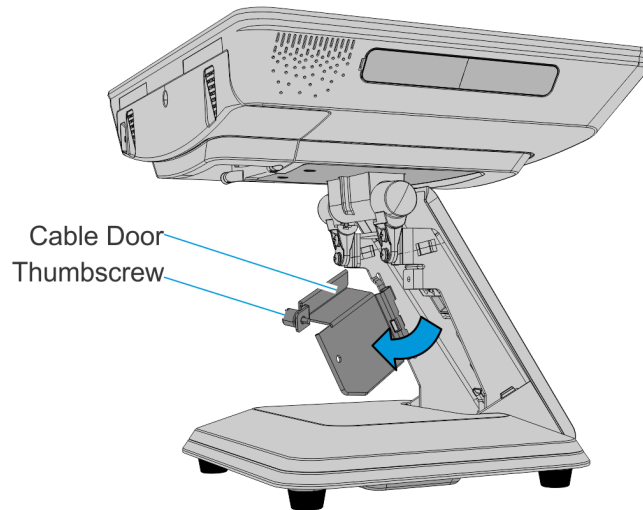
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2. Remove the Upper Stand Cover by pivoting it away from the stand. The cover has a simple snap fit connection at the top.



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3. Open the Cable Door (Thumbscrew).

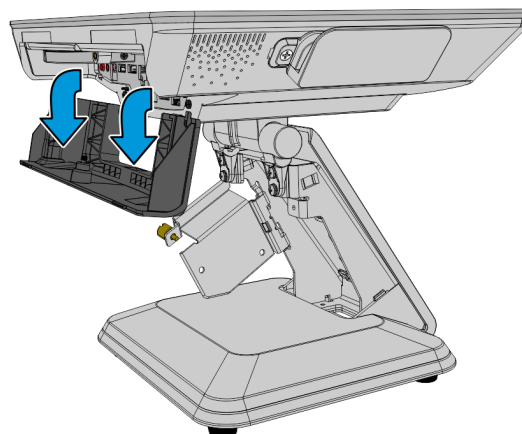
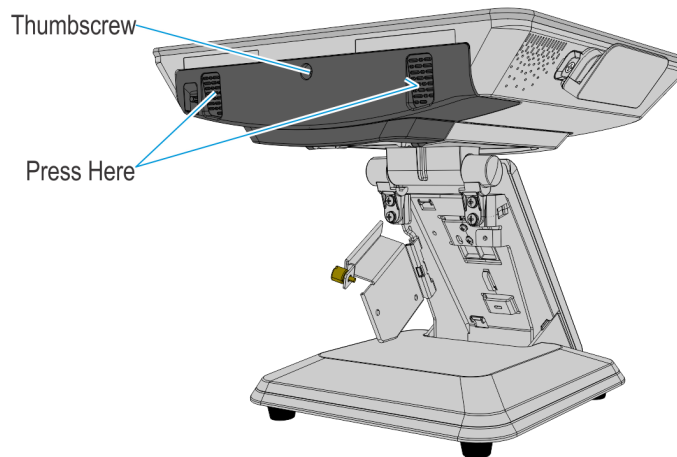


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4. Loosen the screw on the Terminal Cable Cover. To open, press down on the indentations in the Cable Cover to unlatch the cover and then pivot the cover open.

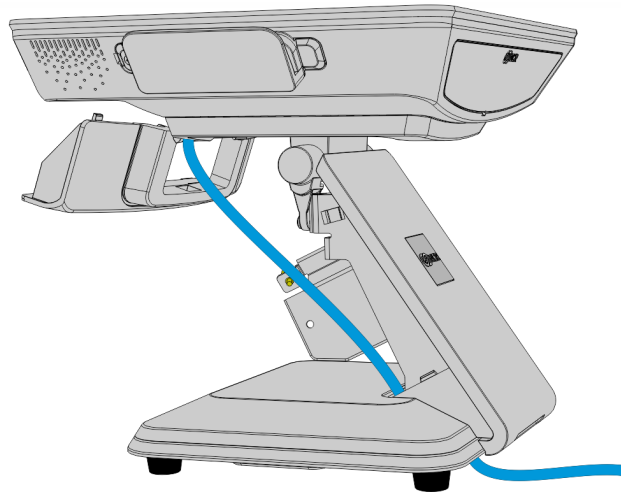


Note: Ensure that the screw is disengaged from the threads.



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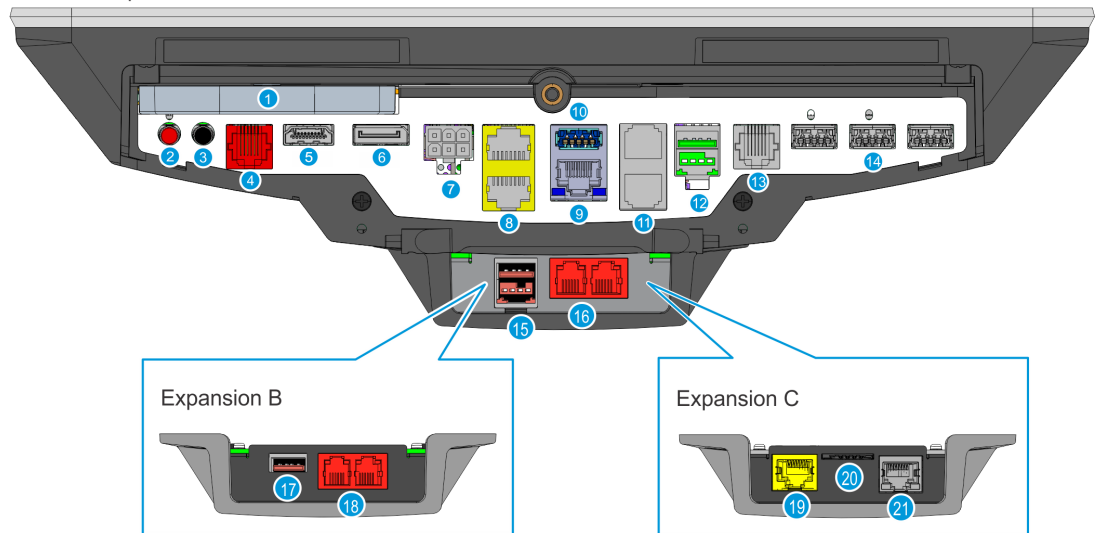
5. Route the cables up through the stand and out of the Terminal Cable Cover.



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6. Connect the peripheral cables to the I/O Panel.

POS with Expansion A



1 – Removable SSD
 2 – Power Button
 3 – Recovery Button
 4 – RJ12 Cash Drawer
 5 – HDMI
 6 – Display Port
 7 – Power In

8 – RJ45 Serial Ports (2)
 9 – Ethernet Port
 10 – USB 3.0
 11 – RJ11 Serial Ports (2)
 12 – 12V Powered USB
 13 – RJ12 Serial Port
 14 – USB 3.0 (3)

15 – 24V Powered USB
 16 – RJ12 Serial Ports (2)
 17 – 5V USB
 18 – RJ12 Serial Ports (2)
 19 – RJ45 Serial Port
 20 – SIM Card Reader*
 21 – RJ45 Power Over Ethernet PSE

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Note: SIM cards must be inserted while the terminal is powered off.

7. Install the Terminal Cable Cover and tighten thumbscrew to secure cover.
8. Close the Cable Door and tighten thumbscrew to secure cable door.
9. Install the Upper Stand Cover.

Power Protection

In the process of power distribution, disturbances from outside and inside the facility can be introduced onto power lines. Such power disturbances can provide for an unstable environment for electronic equipment and can greatly impact the performance of these devices. Equipment that is impacted by poor power can result in downtime, data corruption, and increased service costs. Under these circumstances, NCR recommends the use of power stability products. Such protection devices are intended to guard against hardware damage and various system or program errors in the hospitality environment.

NCR offers Power Conditioners and UPS Systems that will protect electronic equipment and reduce downtime and extend the life of the Hospitality POS Solution. These power stability systems combine a surge diverter and noise filter with a highly efficient low-impedance isolation transformer. The Power Conditioners and UPS Systems control the power variable and do not require dedicated electrical circuits or isolated ground wiring. For more information regarding hospitality power products, please refer to Class 1625 product specific documentation.