Back to index

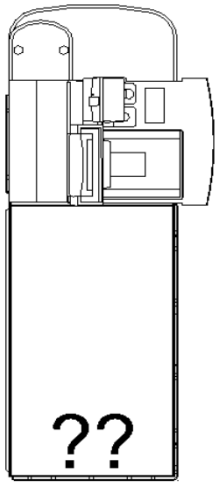
# EQUIPMENT INFORMATION SHEET

Notes and Abbreviations

## CHECKOUTS

Link to PDF file

| ITEM # | QTY EXT | QTY NEW | MODEL # | ITEM DESCRIPTION | MANUFACTURER | CONTRACTOR INFORMATION I | CONTRACTOR INFORMATION F | CONTRACTOR INFORMATION C | REMARKS | UTILITY INFORMATION ELECTRICAL | UTILITY INFORMATION MECHANICAL: SUPPLY | UTILITY INFORMATION MECHANICAL: WASTE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CK128 | | | | Right hand Fast lane self checkout customer station w/input shelf and printer shelf. | NCR | FC | | EC VND | Set in Place. NCR to provide final connection | | | |



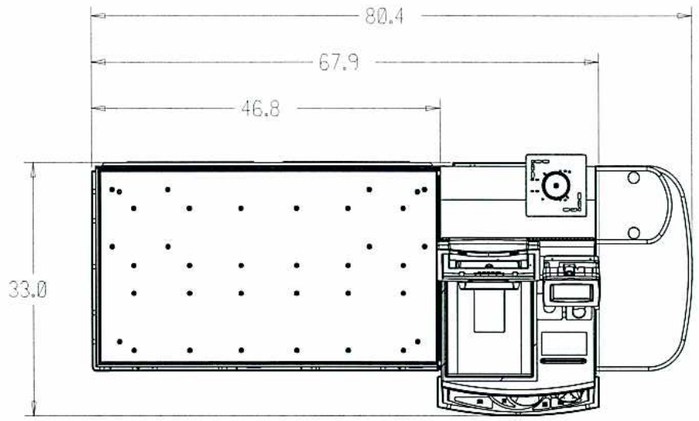

| EQUIPMENT CELL INFORMATION | |
|---|---|
| Date created: | 11/25/2009 |
| Date revised: | 9/30/2014 |
| Cell library: | layout_support areas |
| Cell name(s): | SACK128 |

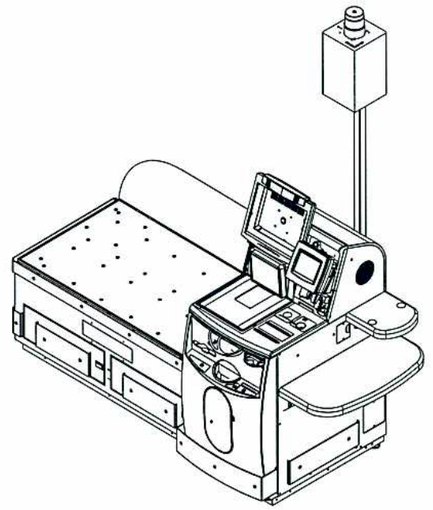
Special CAD Instructions:

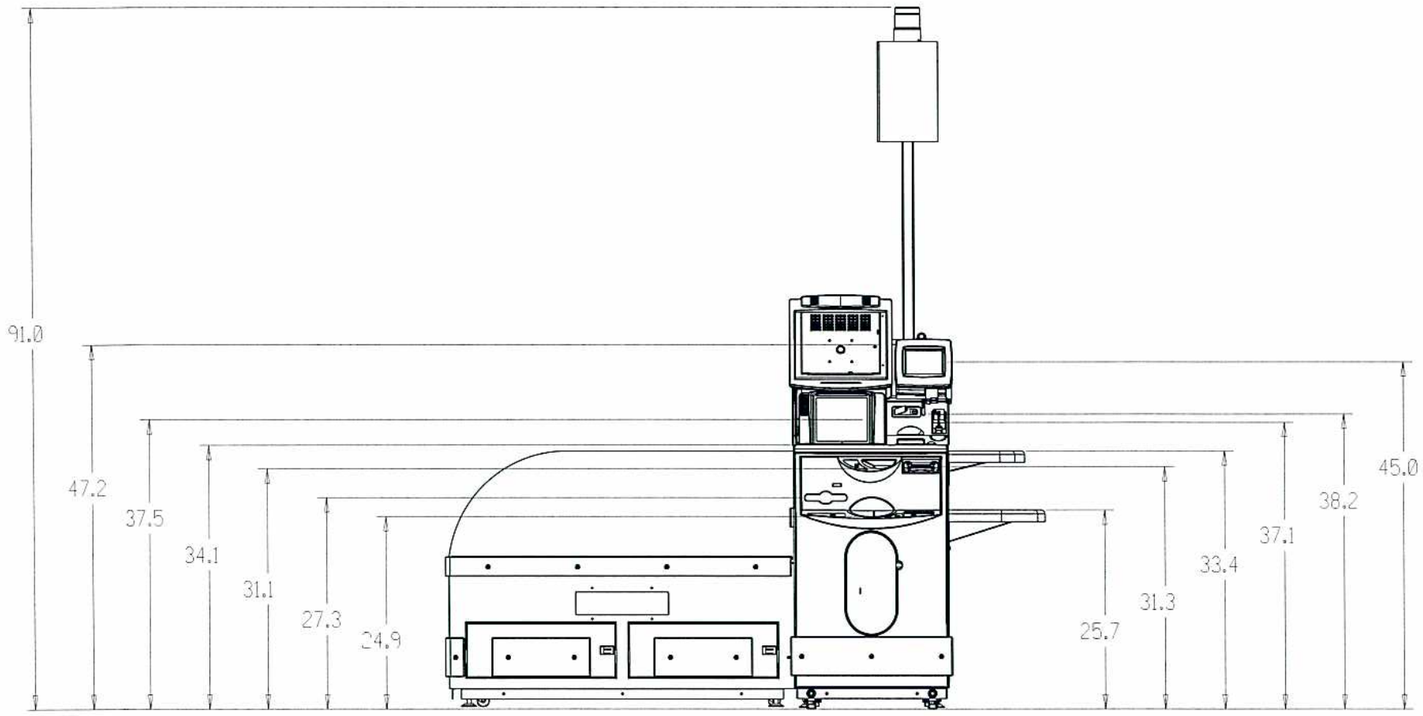
| ITEM NUMBER: | CK128 |
|---|---|

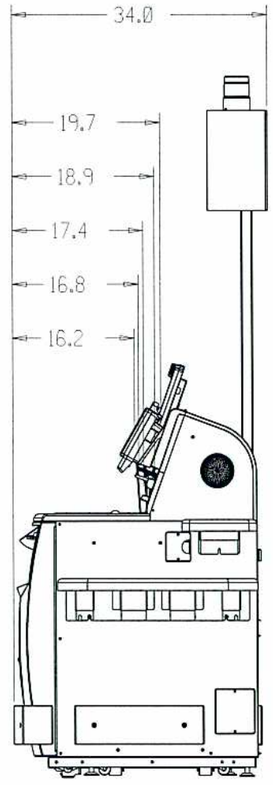
(25.4MM)
1 INCH

3BAG_RH_INPUTSHELF_PRINTERSHELF






NCR | Retail Systems Group Atlanta, Georgia

NAME: ASSEMBLY

SHEET 1 OF 1
SCALE: 0.100
UNITS: INCH

3BAG_RH_INPUTSHELF_PRINTERSHELF

REV

# NCR SelfServ™ Checkout (7350)

Release 5.5

# Site Preparation Guide

B005-0000-1825
Issue G

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To maintain the quality of our publications, we need your comments on the accuracy, clarity, organization, and value of this book.

Address correspondence to:

Manager, Information Solutions
NCR Corporation
Discovery Centre
2 Fulton Road.
DD2 4SW

Or send feedback:
*http://www.info.ncr.com/eFeedback.cfm*

# Preface

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 assure 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 Book

This book provides site preparation information for terminal components. Peripheral component and AC wiring site preparation information is NOT provided in this book. The associated reference documents are listed in the “Related Site Preparation Data” section.

This book contains the information necessary for the preparation of a site that conforms to 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. Furthermore, 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 customer’s 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 is not intended 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 will be available to answer questions relating to the contents of this document except where:

- A customer has been notified that a full or partial consultant service is available and/or that NCR will be 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 of after preparation, is to be taken as approval of the location of the site and equipment or its preparation. NCR will not be liable in respect to 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 that may be caused to his business by reason 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 for all eventualities.

## Audience

This book is written for 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

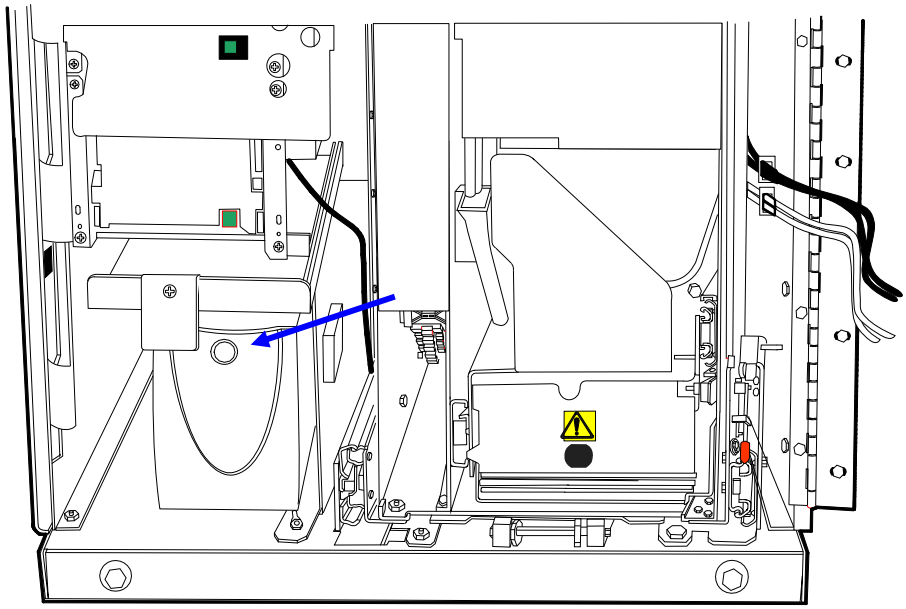
The *NCR SelfServ™ Checkout (7350)* conforms to all applicable legal requirements. To view the compliance statements see the *NCR SelfServ™ Checkout Safety and Regulatory Statements* (B005-0000-1829).

### AC Disconnect

**WARNING: A readily accessible and easily identifiable means of disconnecting power from the NCR SelfServ Checkout unit must be provided, such as a plug on the power cord, isolating switch, or circuit breaker incorporated in the building wiring.**

**Attention:** Il est impératif d'avoir un moyen pour débrancher l'électricité. Ce moyen d'accès doit être visible et facile a 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.

Normal power down of the system is accomplished by turning off the UPS after an orderly shutdown of the software. The UPS is located behind the NCR SelfServ Checkout door.



25953

Emergency power down is accomplished by pulling the AC power cable from the power strip located under the Bag Scale or Takeaway Belt, or by pulling the AC power cable from the wall outlet.

# References

- *NCR SelfServ™ Checkout 7350 Hardware Installation Guide* (B005-0000-1826)
- *NCR SelfServ™ Checkout 7350 Hardware Service Guide* (B005-0000-1827)
- *NCR SelfServ™ Checkout 7350 Hardware Parts Identification* (B005-0000-1828)
- *NCR SelfServ™ Checkout 7350 Hardware User Guide* (B005-0000-1849)
- *NCR SelfServ™ Checkout Safety and Regulatory Information* (B005-0000-1789)
- *NCR SelfServ™ Checkout 7350 E-Box Service Guide* (B005-0000-1831)
- *NCR SelfServ™ Checkout 7350 E-Box Parts Identification Manual* (B005-0000-1845)

# Table of Contents

# Revision Record

| Issue | Date | Remarks |
|---|---|---|
| A | June 2008 | Initial Release. |
| B | Sept 2008 | Updated artwork. |
| C | Mar 2009 | GCA Release. Modified unit weight information. Added operation and service clearance requirements. |
| D | Aug 2009 | Added information for securing unit to floor. |
| E | Mar 2010 | Release 5.1. Added No Bag variant, 7 ft input belt. |
| F | June 2011 | Added large Collection Area. |
| G | Oct 2012 | Added Small Footprint Credit/Debit. |

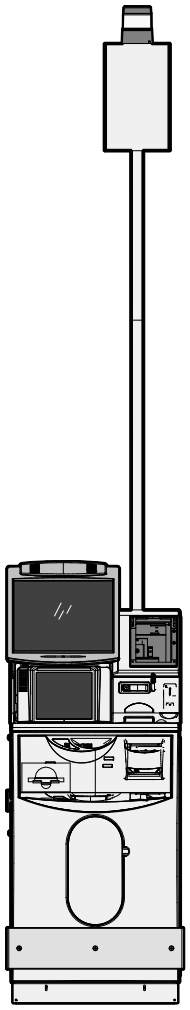
# *Chapter 1:* Overview

## Introduction

This document provides the information necessary to prepare a site to NCR specifications prior to installing an NCR SelfServ™ Checkout terminal. The site must be properly prepared before the workstation is installed because site preparation deficiencies may be difficult to detect and correct after installation.

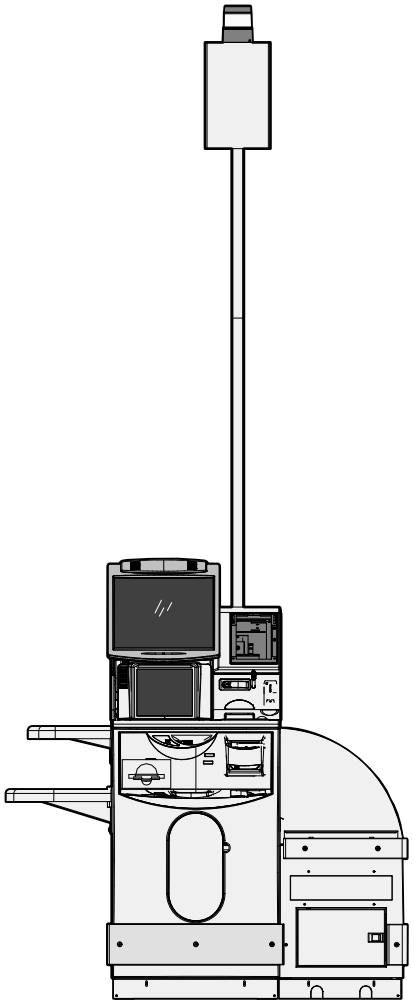
The NCR SelfServ Checkout terminal consists of separate pieces that may be combined in a variety of configurations. Certain combinations are mutually exclusive. You must determine the equipment that will actually be installed before proceeding with the site preparation.

The optional Remote Attendant Station is comprised of an NCR 7402 Terminal (or a PC) that controls and monitors up to ten NCR SelfServ Checkout terminals at any given time. The Remote Attendant Program software is installed on each Self-Checkout terminal to permit store personnel to monitor the Self-Checkout lane.



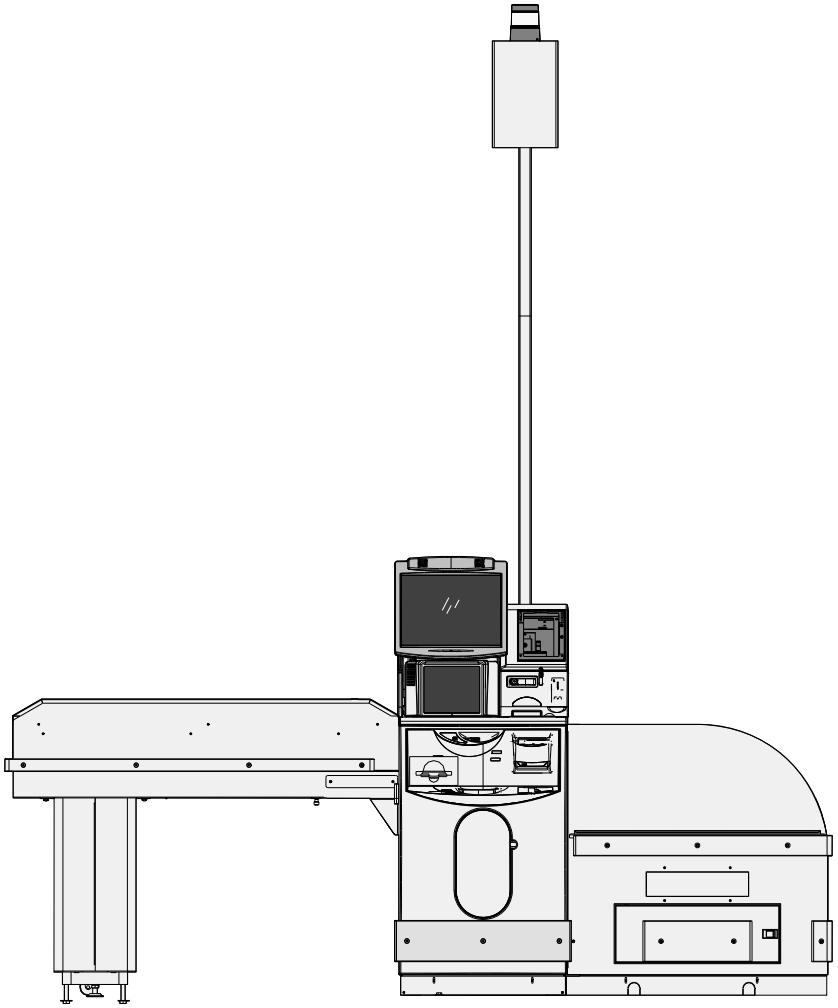
27884

*No Bag Configuration*



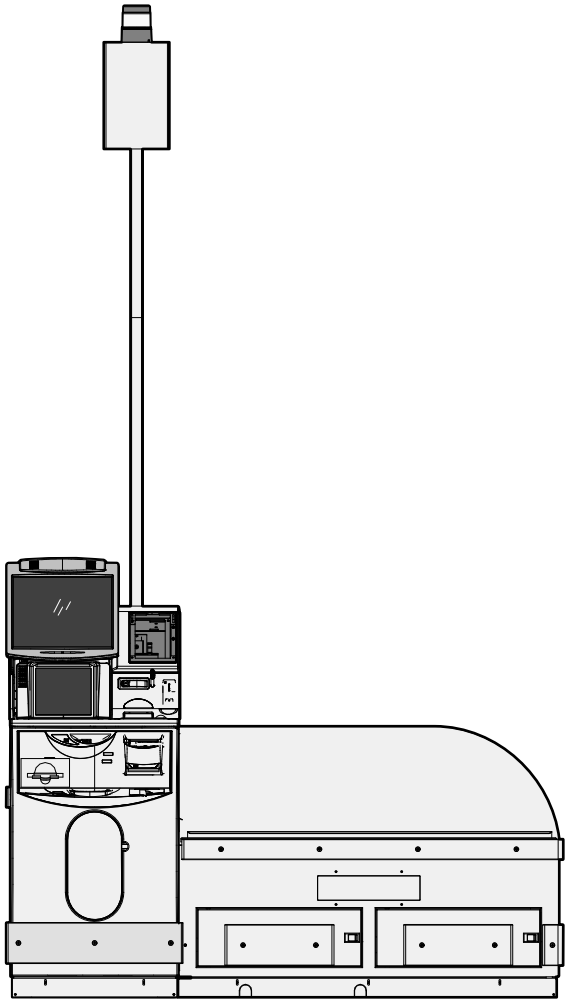
26503

*1 Bag Configuration with Basket Shelf*



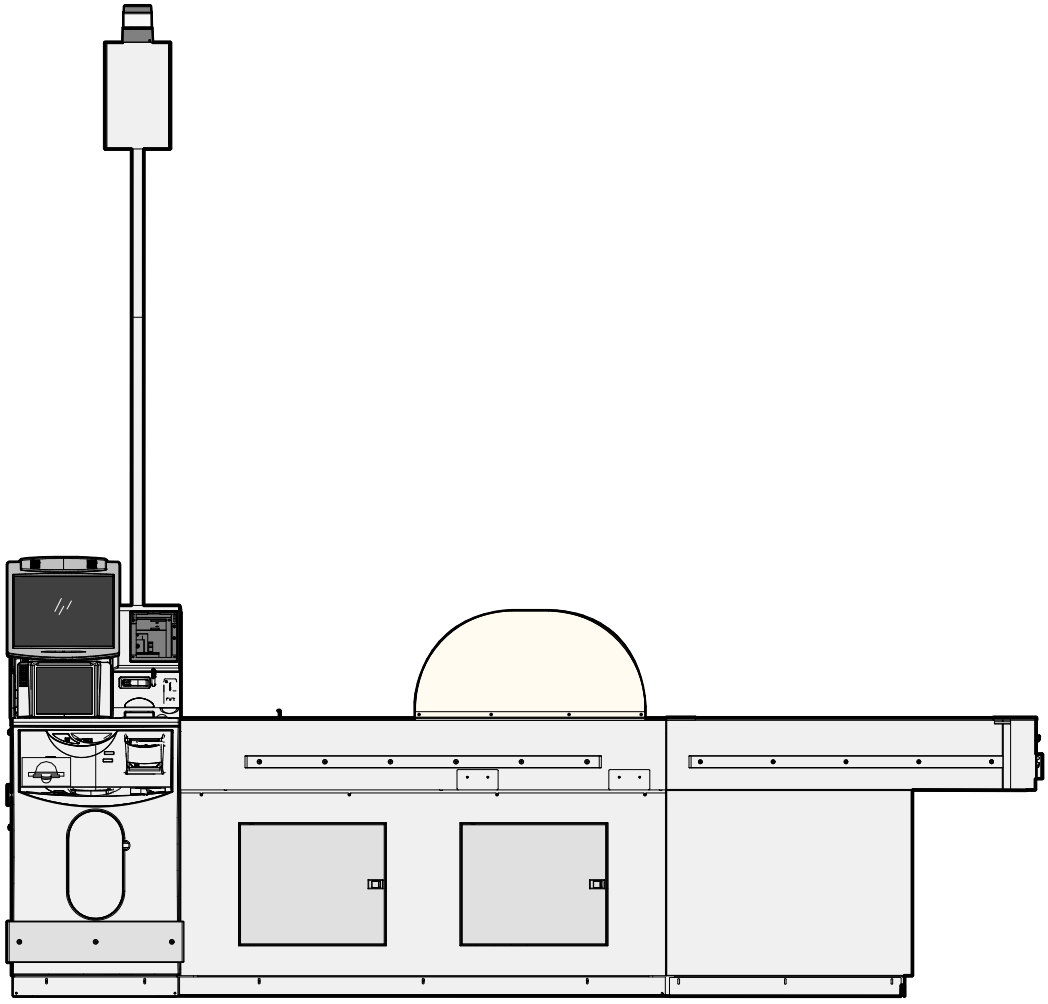
26504

*2 Bag Configuration with Input Belt*



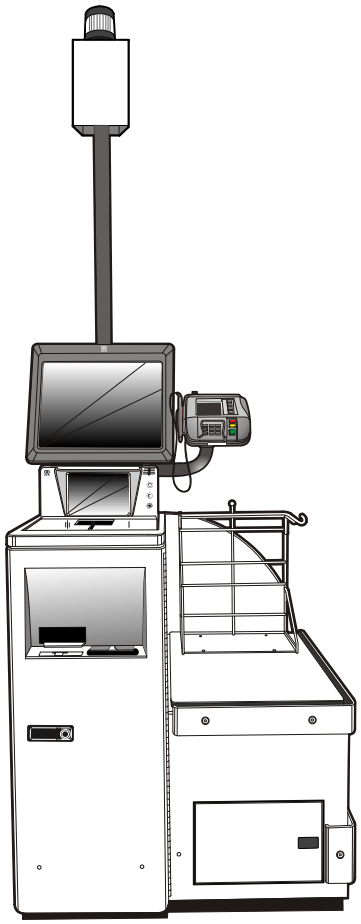
26505

*3 Bag Configuration*



26507

*Take Away Belt Configuration*



31661

*Small Footprint Credit/Debit*

# Related Site Preparation Data

## AC Power and Communications Wiring

| Title | IP Order Number |
|---|---|
| NCR Ethernet Communications Wiring Guide | BST0-2118-82 |
| NCR Workstation and Peripherals AC Wiring Guidelines | BST0-2115-53 |

## Peripherals

| Title | IP Order Number |
|---|---|
| NCR RealPOS 70 (7402) Site Preparation Guide | B005-0000-1464 |
| NCR RealPOS 70xrt (7403) Site Preparation Guide | B005-0000-1873 |
| NCR RealPOS High Performance Bi-Optic Scanner/Scale (7878) User Guide | B005-0000-1724 |
| NCR RealPOS Single Window Scanner (7884) User Guide | B005-0000-1819 |
| NCR 7125 Self-Service Printer Owner’s Guide | B005-0000-1739 |
| NCR 7346-F309 2ST Self-Service Receipt Printer Owner’s Guide | B005-0000-1816 |

# Customer Responsibilities

Before the system can be installed, the customer must do or provide the following:

- When required by NCR, provide the NCR Customer Services representative with appropriate drawings that indicate:
  - Location of the equipment.
  - 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.
- Make sure 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/unit environmental requirements.
- Provide a level floor to locate the Self-Checkout checkstand.
- Provide and install floor coverings and environmental systems that limit or control static electricity build-up and discharge.
- Provide a dedicated phone line for the remote support modem.
- Provide a dedicated location for the wireless router on the ceiling within 50 meters periphery of the Self-Checkout units.

The customer is responsible for relocating the NCR SelfServ Checkout equipment (check stand and components) to the final placement/installation position. The customer may option to engage contractor labor if necessary, however NCR personnel are not responsible to perform this activity.

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

When selecting a location for installing the NCR SelfServ Checkout units, keep in mind that the security scales on the units can be adversely affected by air flow from overhead air conditioning vents, bursts of air entering through store doors, or vibrations from unstable floors.

Finally, only the customer can know the full extent of the damage that may be caused to his business by reason 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 such possible damage to his existing or planned business, and to effect full insurance for all even

# AC Store Wiring Requirements

The customer must provide suitable AC power for the NCR SelfServ Checkout terminals, associated equipment, and devices. An AC power circuit dedicated to the NCR equipment installation is recommended for the NCR SelfServ Checkout terminal. The AC outlet (insolated, isolated ground line) must be installed near the checkstand and be easily accessible to the operator.

A second independent AC circuit is required for the optional Sensormatic Surveillance System. It is recommended that no other electronic equipment be connected to this circuit. Input Belts also require their own independent power circuit.

The NCR SelfServ Checkout terminal may function satisfactorily with existing wiring configurations; however, the safety requirements and UL certification must be met. Refer to the book *NCR Workstation and Peripherals AC Power Wiring Guide* (BST0-2115-53) for specific, detailed AC wiring requirements.

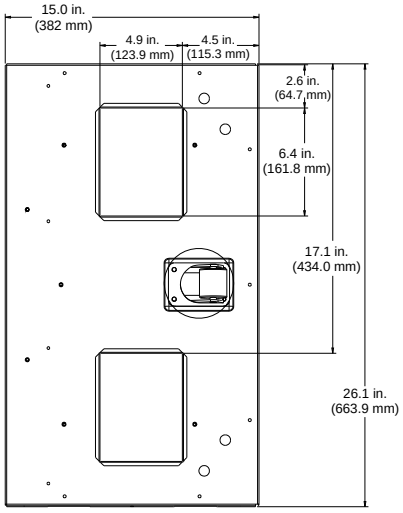
## AC Power Stub

If the AC power source for the terminal is to be dropped from the ceiling, the power should be routed through one of the cutouts located on the skirt of the NCR SelfServ Checkout checkstand.

**Caution:** No Bag configurations must have direct access to Power In so that AC can be disconnected from the source. For No Bag configuration units, power cannot be routed into the Core using a junction box or by dropped down from ceiling.

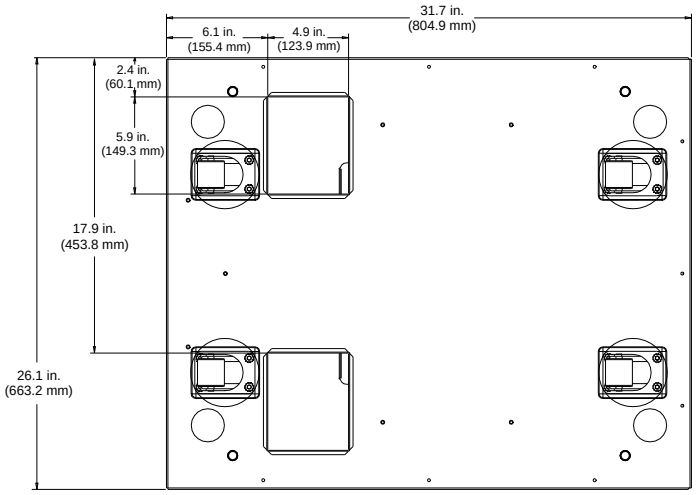
If the AC power source for the terminal is in the floor beneath the unit, refer to the following illustrations to determine the proper location for the AC stub. Openings for power stubs are located under the bagging area.

### 1 Bag Unit Power Stub Location



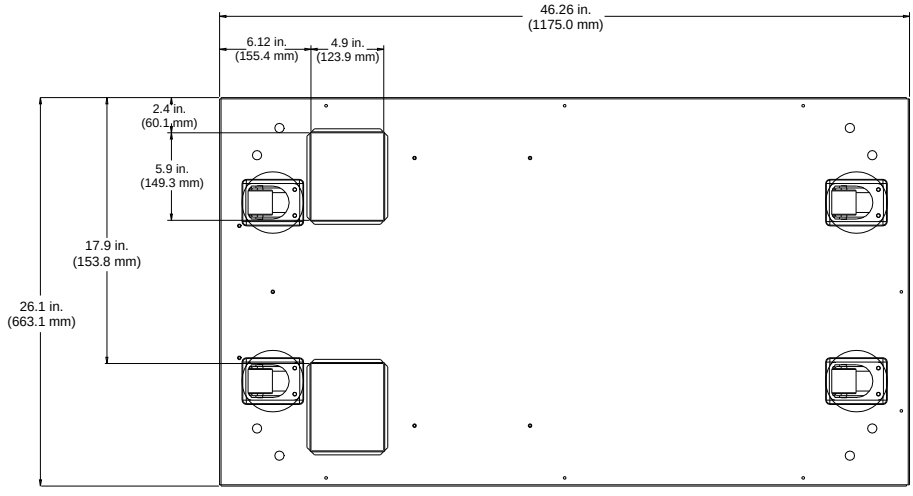

25938

## 2 Bag Unit Power Stub Location



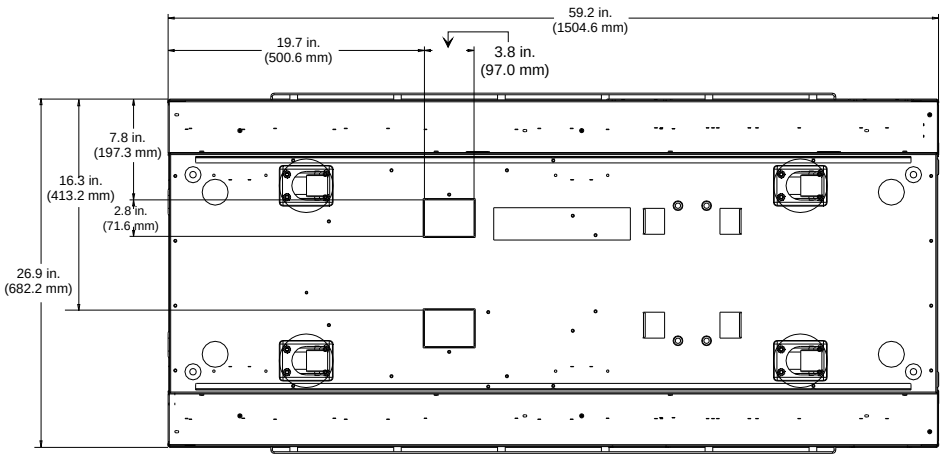

25939

## 3 Bag Unit Power Stub Location




25940

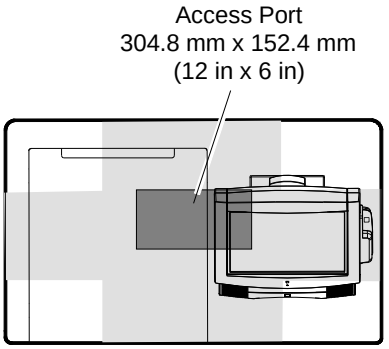
## NCR SelfServ Checkout Takeaway Belt Unit Power Stub Location

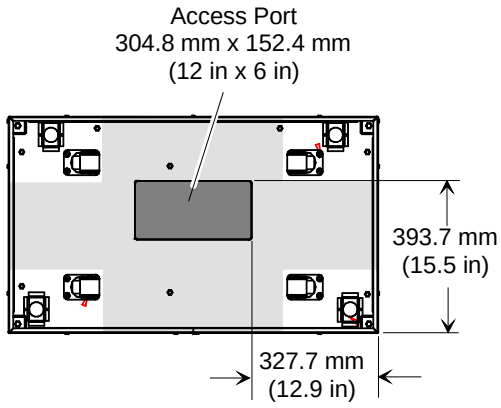



25937

## Remote Attendant Station Power Stub Location

The first image shows an overhead view of the unit. The second image shows the base of the unit.

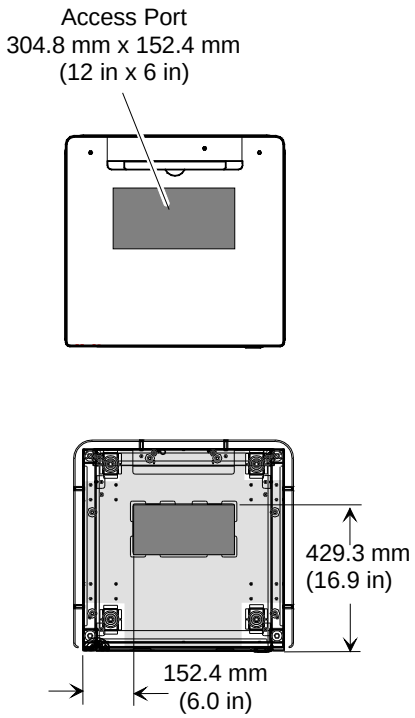



19871

## Compact Remote Attendant Station Power Stub Location

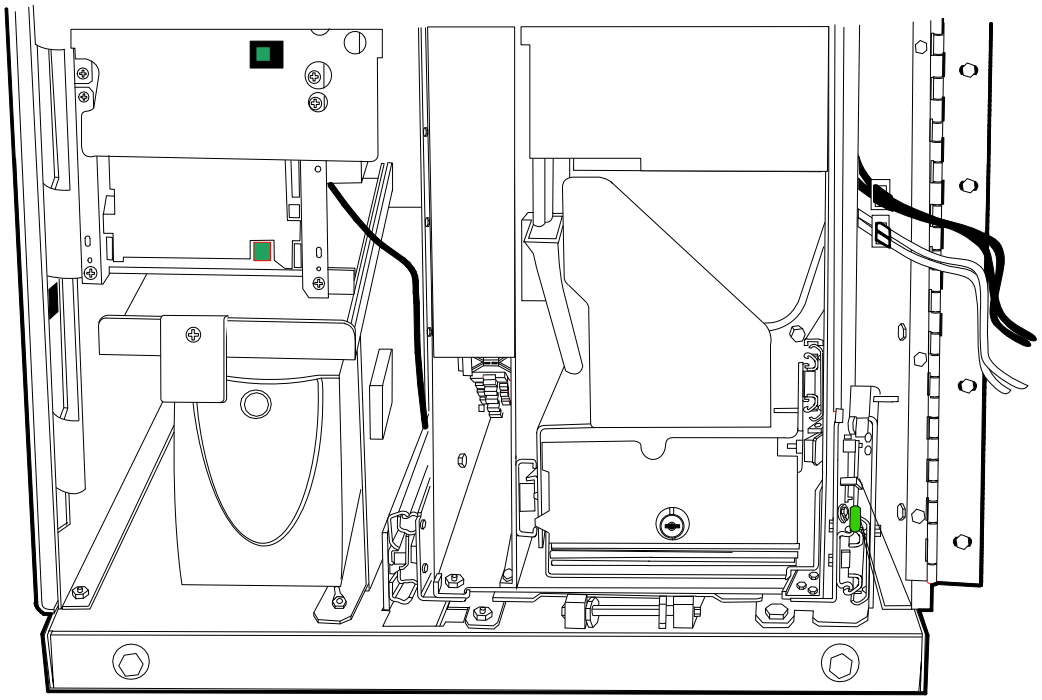
The first image shows an overhead view of the unit. The second image shows the base of the unit.




20260

## AC Disconnect for the Terminal

Normal power down of the system is accomplished by turning off the UPS after an orderly shutdown of the software. The UPS, if present, is located behind the SelfServ Checkout door.



27851

Emergency power down of the system is accomplished by unplugging the AC cable from the Power Strip. The Power Strip is located underneath the bag scale or takeaway belt.

**Caution:** No Bagwell configurations must have direct access to Power In so that AC can be disconnected from the source. For units with no bagwell, power cannot be routed into the Core using a junction box or by dropped down from ceiling.

If the customer chooses to install an electrical box in the checkstand (recommended), then the electrical box should include three regular outlets to accommodate the NCR SelfServ Checkout system in the event of a UPS failure.

The socket shall be installed near the equipment and shall be readily accessible. A readily accessible disconnect device should be incorporated in the fixed wiring.

## Building Wiring Type

This equipment is designed for connection to an IT power system.

## Power Requirements

The following table shows operating specifications for the power supply. The results shown are the maximum values.

| | 120 V | | 240 V | |
|---|---|---|---|---|
| NCR SelfServ Checkout Standard Terminal | Takeaway Belt | No Takeaway Belt | Takeaway Belt | No Takeaway Belt |
| Voltage Range | 90V–136V* | 90V–136V* | 198V–257V | 198V-257V |
| Frequency | 60 Hz | 60 Hz | 50 Hz | 50 Hz |
| Avg Current | 1.5 A | 1.5 A | 0.7 A | 0.7 A |
| Max Current | 5.0 A | 3.2 A | 5.0 A | 4.0 A |
| Inrush | 18 A | 18 A | 13 A | 12 A |

* There is a fluctuation factor of + or – 7% due to UPS specifications.

| Input Belt | 120 V | 240 V |
|---|---|---|
| Voltage Range | 90V–136V | 198V–257V |
| Frequency | 60 Hz | 50 Hz |
| Avg Current | 0.8 A | 0.8 A |
| Max Current | 5.8 A | 5.8 A |
| Inrush | Refer to SelfServ Checkout Unit | Refer to SelfServ Checkout Unit |

**Note:** A 20 AMP circuit is recommended for 120V systems and a 15 AMP circuit is recommended for 240 V systems.

# LAN Communications

The NCR SelfServ Checkout supports Ethernet 10/100 BASE-T local area network (LAN) communication protocol. The NCR 7402 terminal provides a female RJ-45 connection port for the LAN. A 6-foot LAN cable is provided with the system. For Ethernet communications wiring specifications, refer to the *NCR Ethernet Wiring Guide* (BST0-2118-82).

# *Chapter 2:* NCR SelfServ Checkout Configurations

The NCR SelfServ Checkout is composed of an unload area, a core module, and a bagging area.

## Unload Area

Three options are available for the unload area:

- Basket Shelf
- Input Belt
- Bumper only

## Core Module

### *Standard Core*

The core module contains:

- NCR Touch Monitor
- NCR SelfServ Checkout E-Box Terminal
- NCR RealPOS 78 Scanner/Scale. (**Note:** Other scanner options are also supported.)
- Security Tri-Light/Lane Light
- Cash Dispenser / Cash Acceptor —or—Note Recycler
- Coin Recycler
- Receipt Printer
- Electronic Payments Device
  - Signature Capture Device (optional)
  - Motorized Card Reader (optional)
  - Dip Card Reader (optional)
- Coupon Sensor
- Uninterruptible Power Supply

### *Narrow Footprint Credit/Debit Core*

The narrow footprint credit/debit core module contains:

- NCR Touch Monitor
- NCR SelfServ Checkout E-Box Terminal
- Receipt Printer

- NCR RealPOS Low Profile Bi-Optic (7874) Scanner/Scale
- Security Tri-Light/Lane Light
- Electronic Payments Device
- Coupon Sensor
- Uninterruptible Power Supply

### Bagging Area

The bagging area options include:

- No Bagging Area
- 1.0 Bag Security Scale
- 2.0 Bag Security Scale
- 3.0 Bag Security Scale
- Takeaway Belt with Security Scale

**Note:** The Small Footprint Credit/Debit unit does not support a 3.0 Bag Security Scale or a Takeaway Belt.

### Optional Hardware

The following optional hardware features are also available on the NCR SelfServ Checkout.

- EAS Deactivation System
- Hand-Held Scanner
- Remote Modem
- Exit Gate support
- Wireless LAN
- ADA Input Device
- Biometric Fingerprint Reader

**Note:** The Small Footprint Credit/Debit unit does not support the ADA Input Device or Biometric Fingerprint Reader.

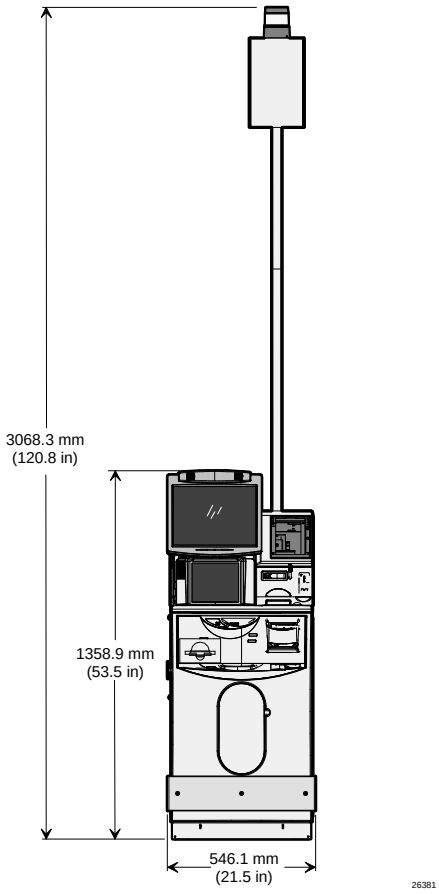
# Physical Considerations

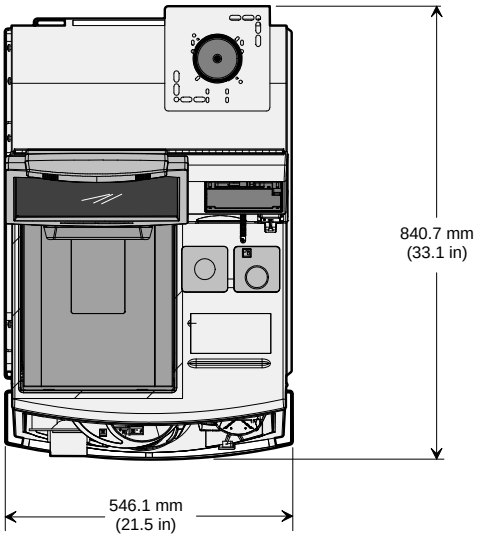
This section presents the following workstation information:

- Operating and Service Clearance Requirements
- System Dimensions
- Terminal Configuration Options

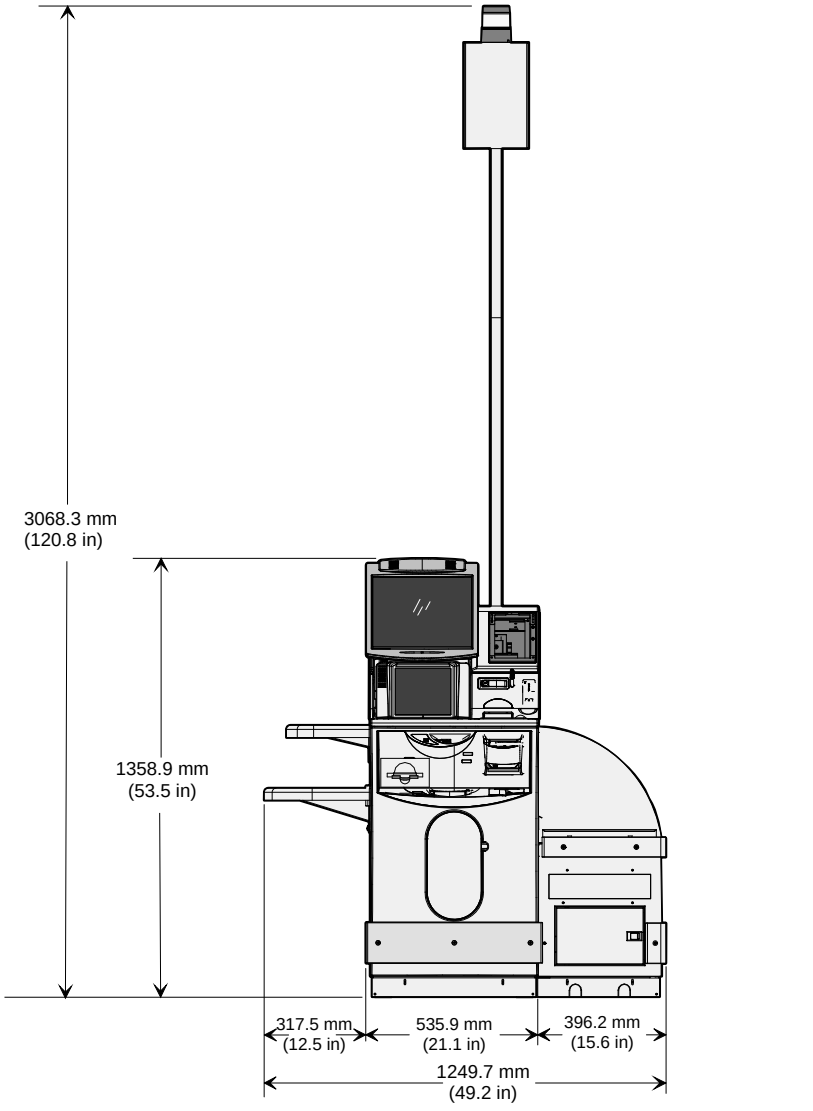
# Dimensions for NCR SelfServ Checkout Checkstand Components

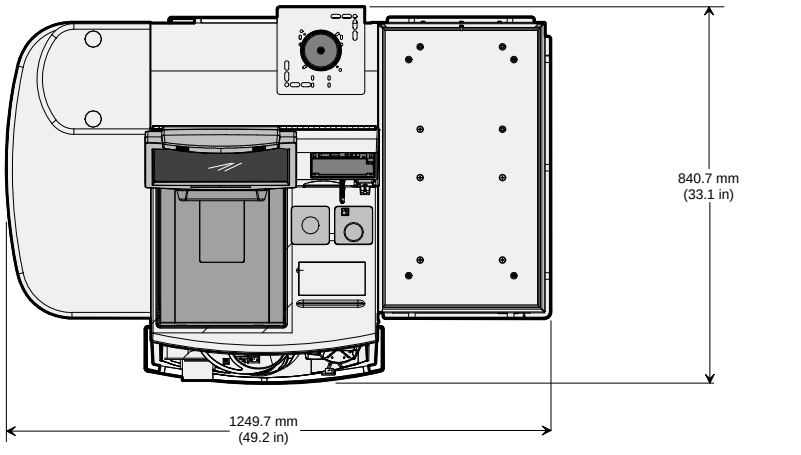
## Core (No Bagwell) with Bumper



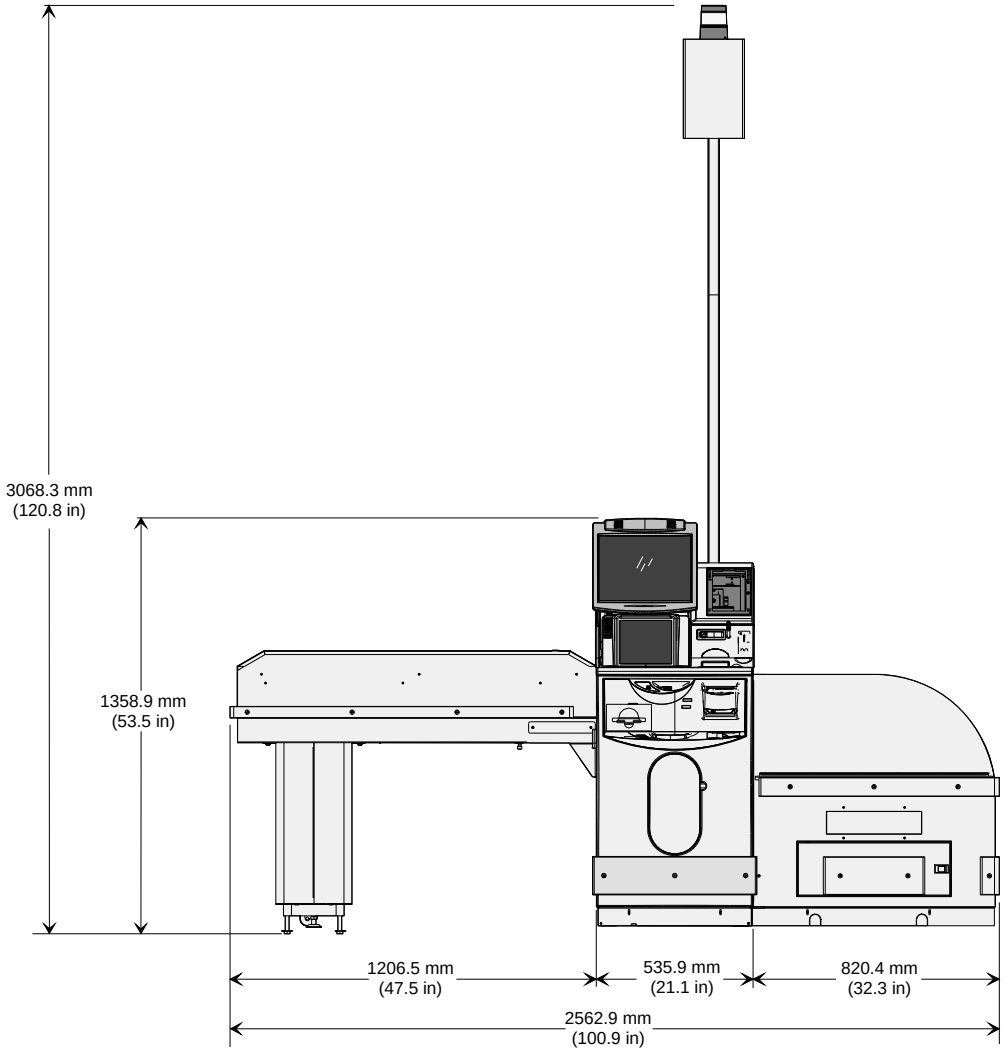



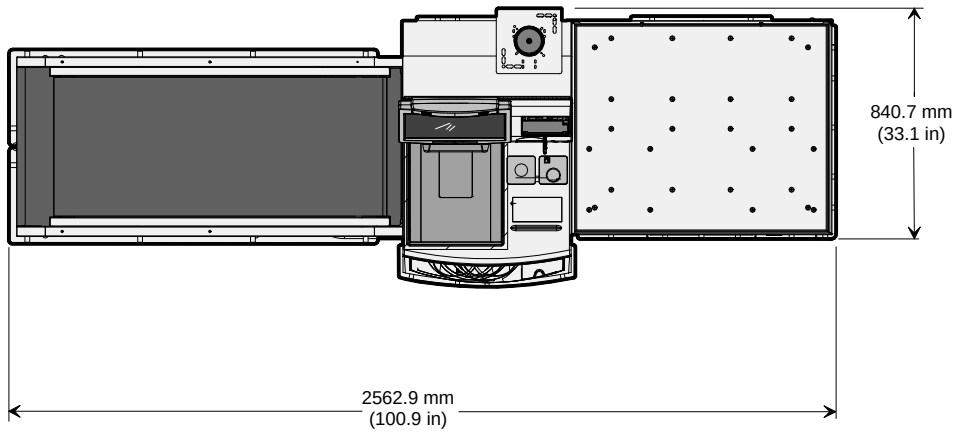
## 1 Bag Bagwell



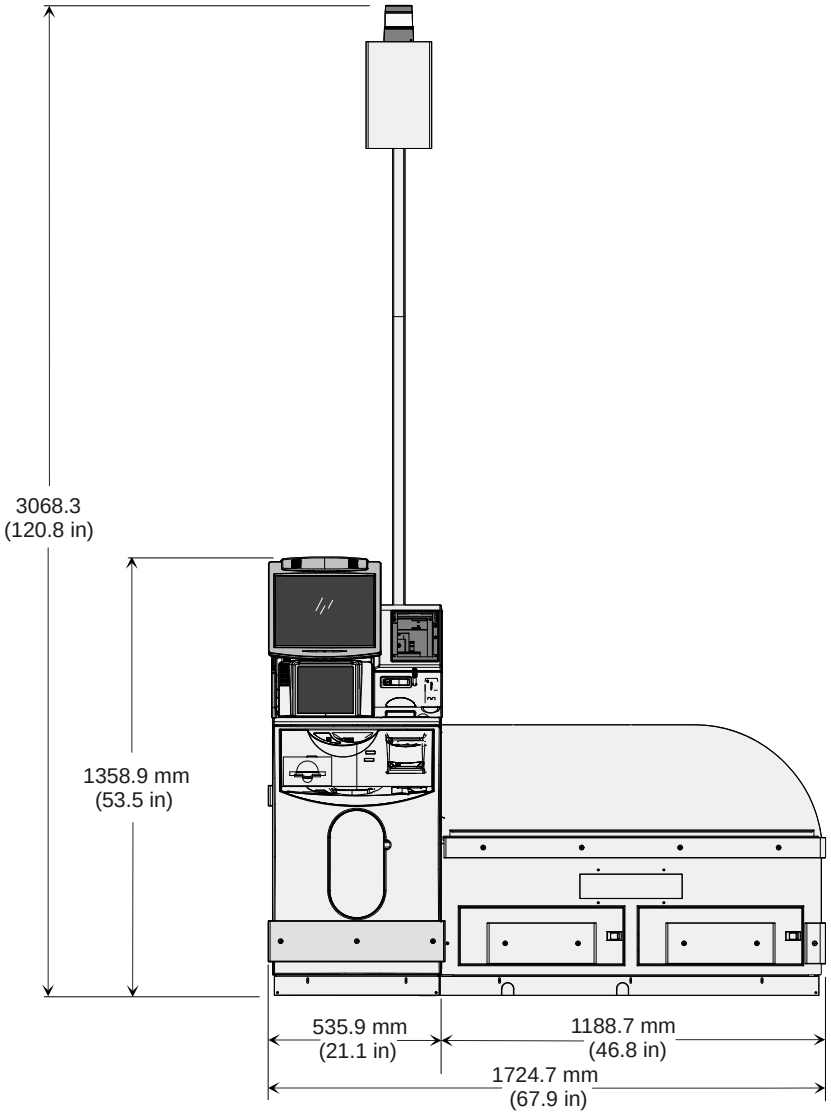



## 2 Bag Bagwell

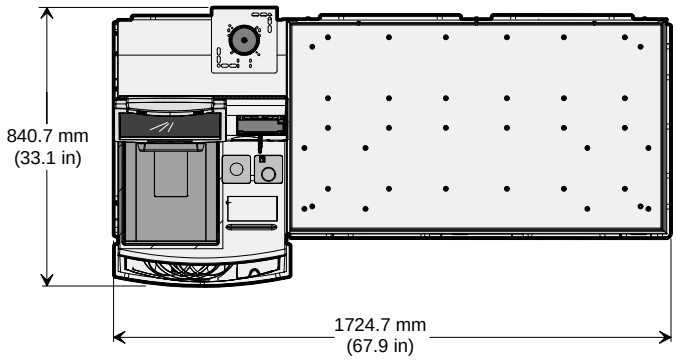


## 3 Bag Bagwell

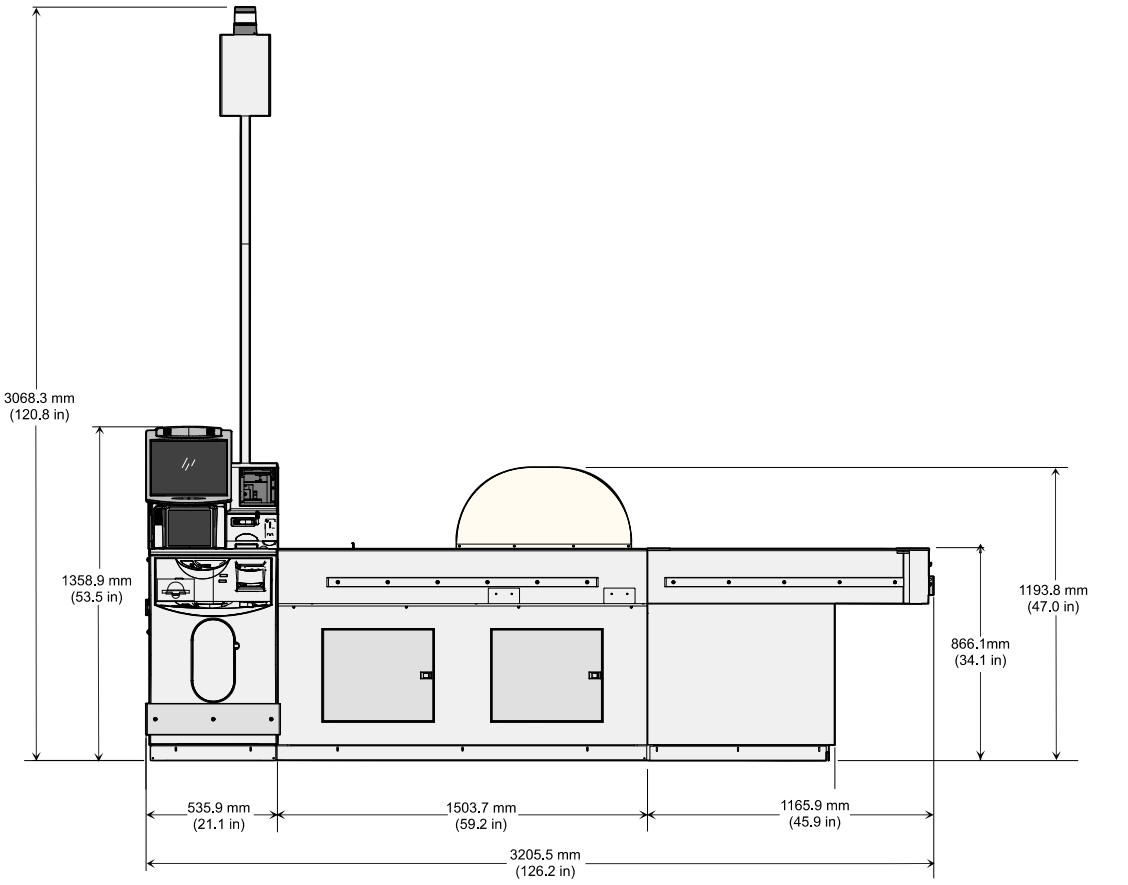



26387

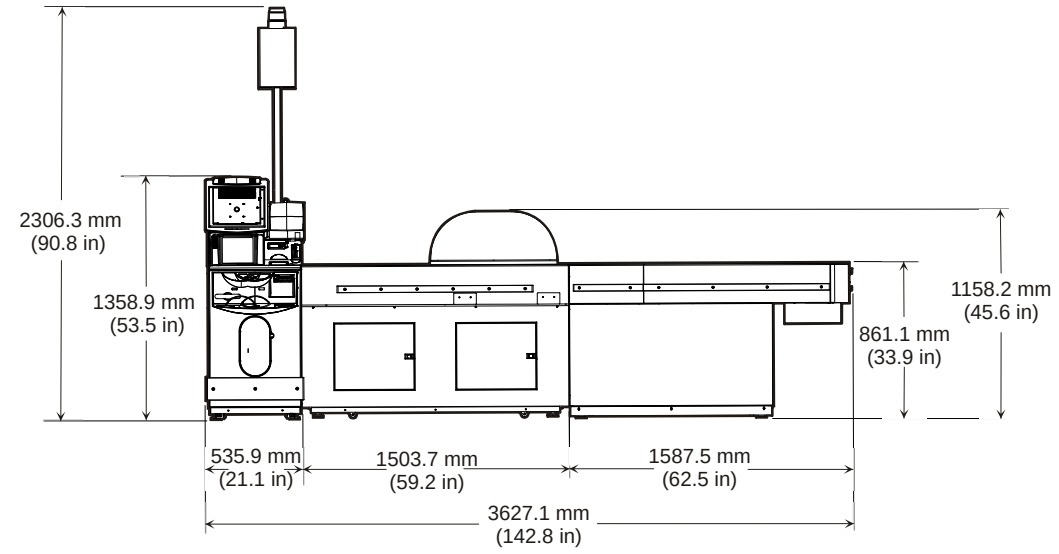


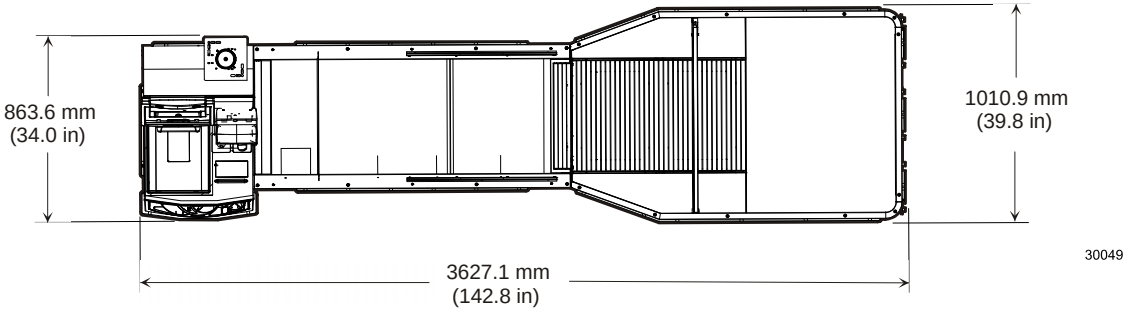

26388

## Takeaway Belt (Short Collection Area)

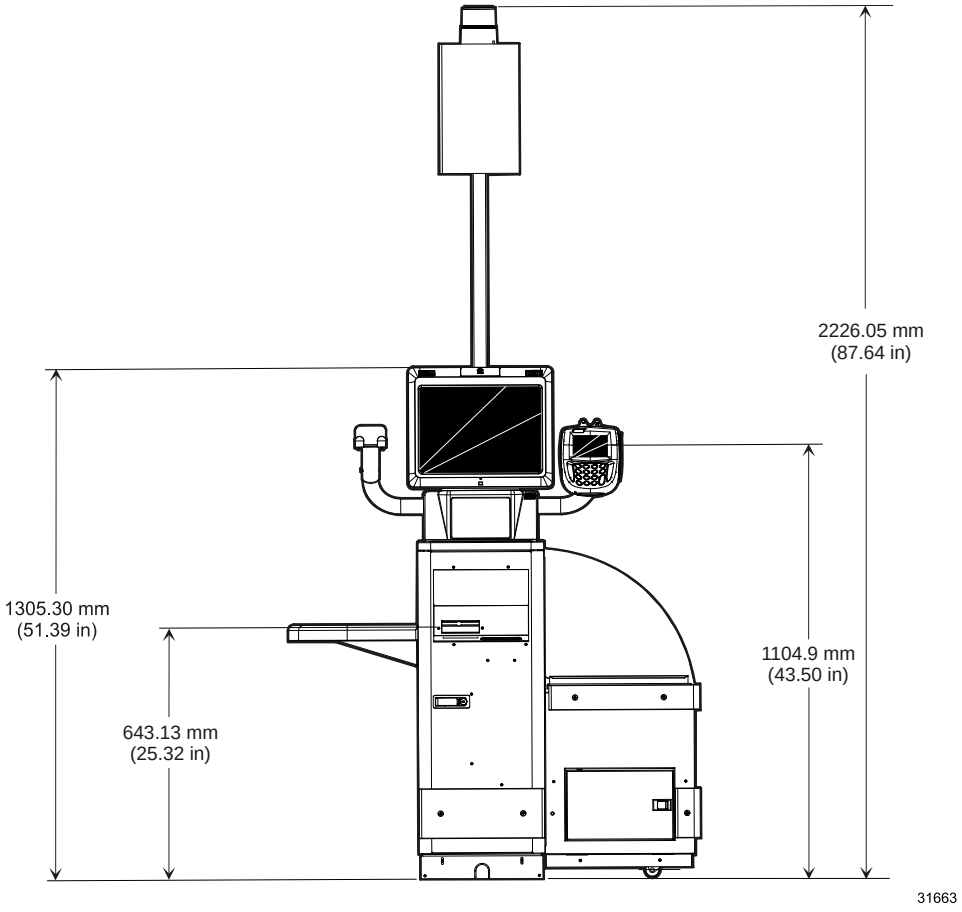


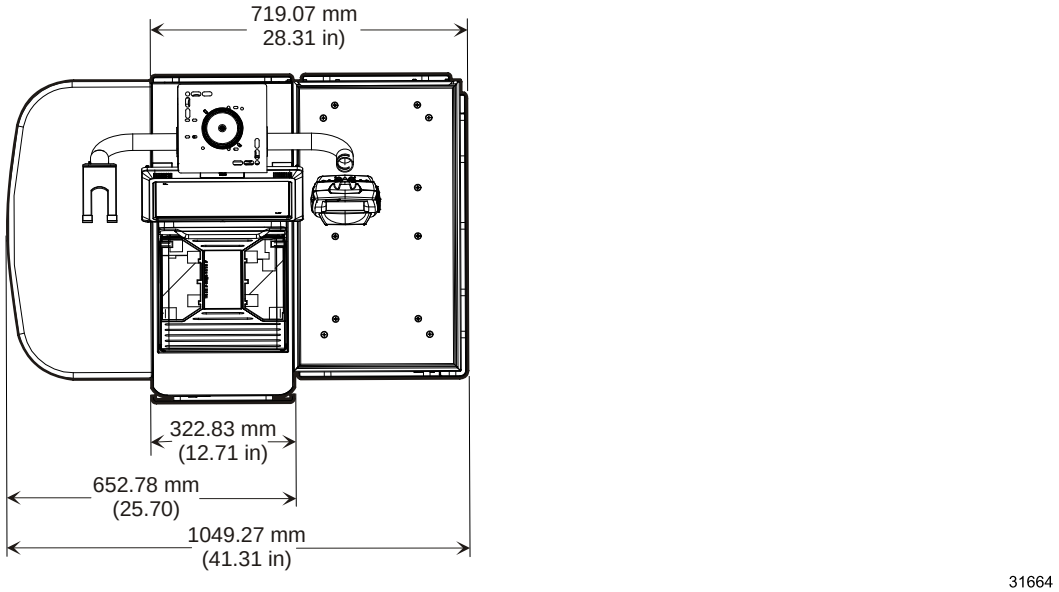
## Takeaway Belt (Large Collection Area)



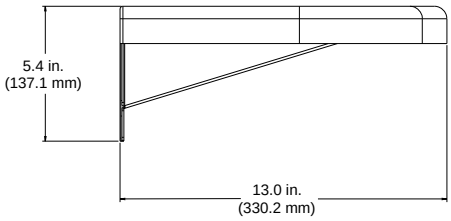



## Small Footprint Credit/Debit

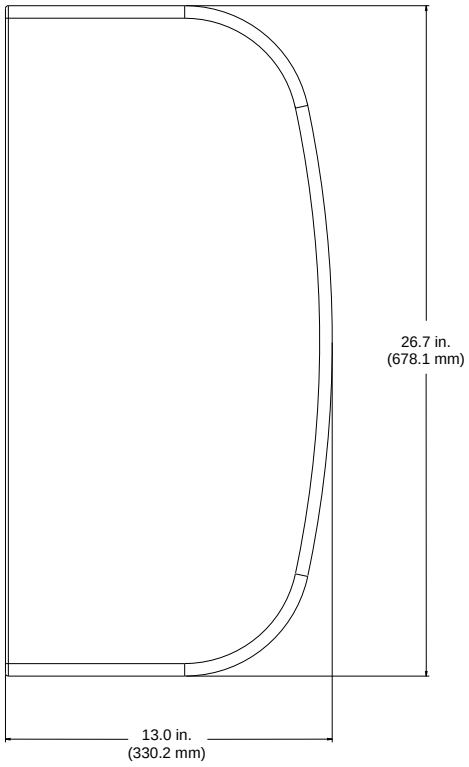


# Dimensions for Basket Shelf



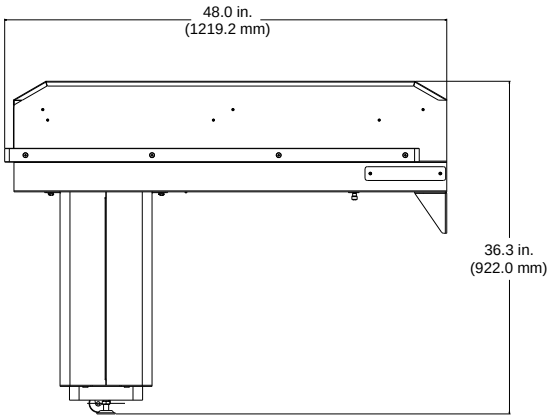

25931



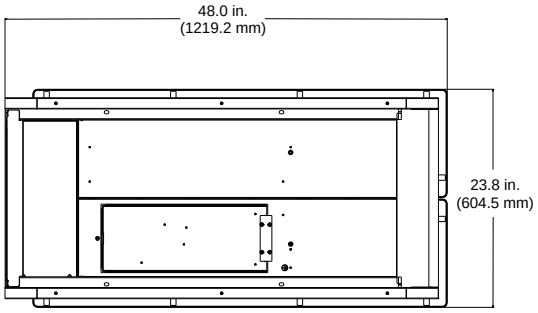

25930

# Dimensions for the Input Belt

## 4 Foot Input Belt

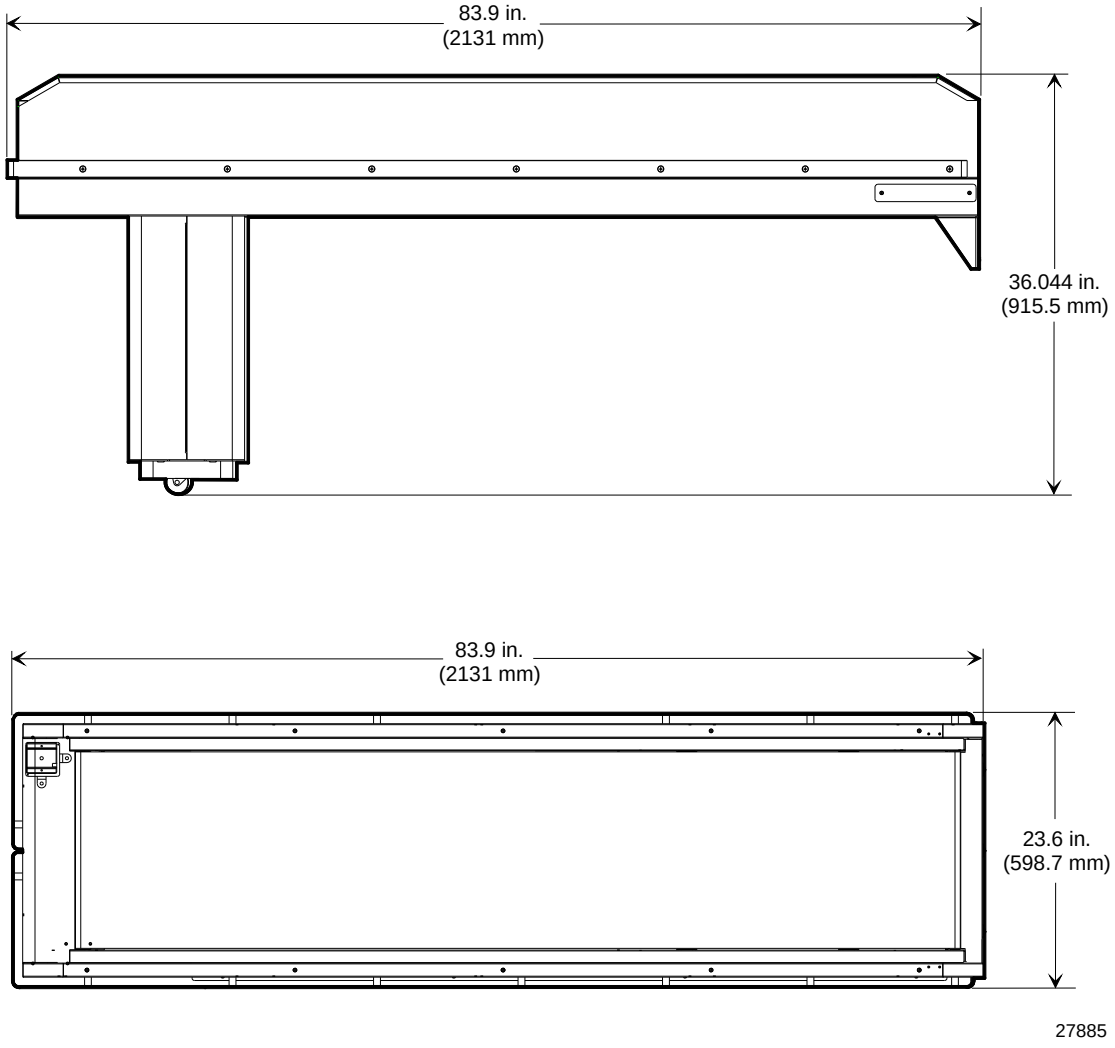



25875



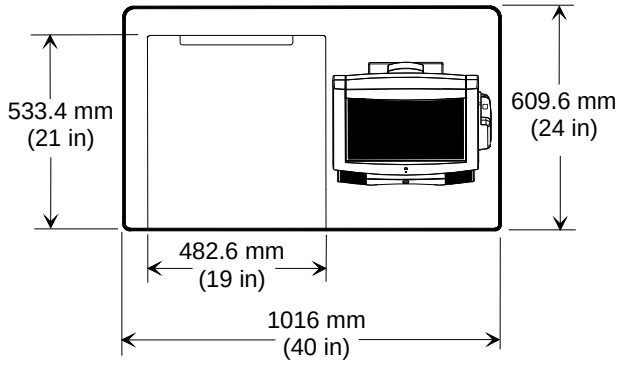

25874

## 7 Foot Input Belt

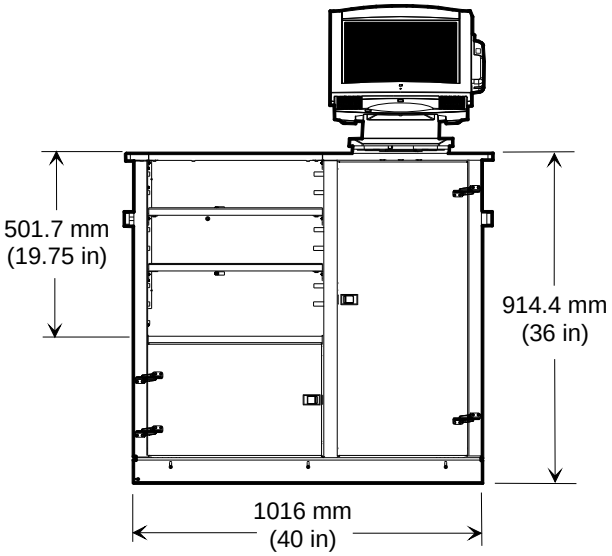


# Dimensions for the Remote Attendant Checkstand

## Standard Remote Attendant Checkstand

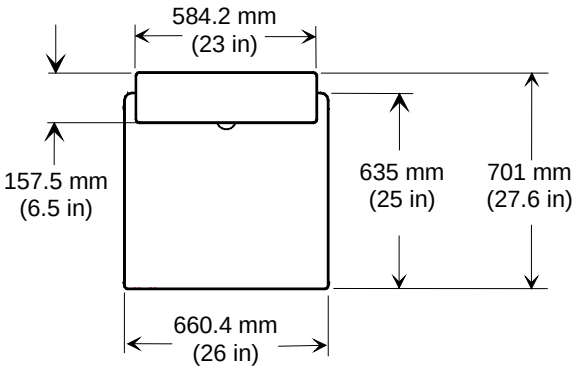



19791

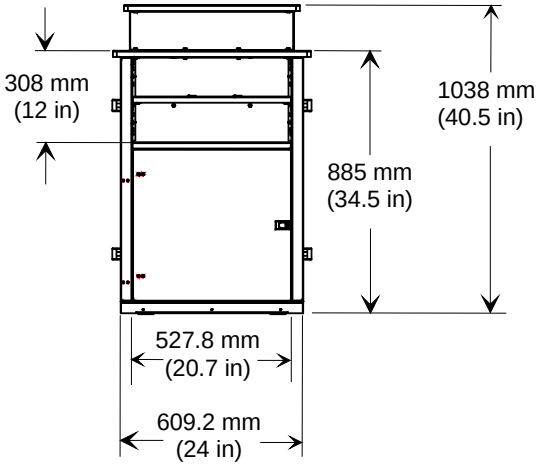



19446

## Compact Remote Attendant Checkstand




20261




20262

# Dimensions for Shipping Crates

| Unit | Height | Length | Width |
|---|---|---|---|
| No Bag | 1379.2 mm (54.3 in) | 1607.8 mm (63.3 in) | 1092.2 mm (43.3 in) |
| 1.0 Bag | 1379.2 mm (54.3 in) | 1607.8 mm (63.3 in) | 1092.2 mm (43.3 in) |
| 2.0 Bag | 1379.2 mm (54.3 in) | 1607.8 mm (63.3 in) | 1092.2 mm (43.3 in) |
| 3.0 Bag | 1379.2 mm (54.3 in) | 1861.8 mm (78.3 in) | 1092.2 mm (43.3 in) |
| Takeaway Belt | 1379.2 mm (54.3 in) | 2319.0 mm (91.3 in) | 1092.2 mm (43.3 in) |
| Collection Area for Takeaway Belt (small) | 1025.6 mm (40 in) | 1320.5 mm (51.5 in) | 866.7 mm (33.8) |
| Collection Area for Takeaway Belt (large) | 1054.1 mm (41.5 in) | 1663.7 mm (65.5 in) | 1085.9 mm (42.75 in) |
| Input Belt | 1536.7 mm (60.5 in) | 1422.43 mm (56 in) | 1143 mm (45 in) |
| Input Belt (7 ft) | 1597.6 mm (62.9 in) | 2364.7 mm (93.1 in) | 1219.2 mm (48 in) |
| Remote Attendant Checkstand | 1183.6 mm (46.6 in) | 1077 mm (42.4 in) | 660.4 mm (26 in) |
| Compact Remote Attendant Station | 1183.6 mm (46.6 in) | 1077 mm (42.4 in) | 660.4 mm (26 in) |

# Unit Weights

The following table shows the approximate weights for each standard NCR SelfServ Checkout configuration. The actual weight may differ based on the addition of optional components.

| NCR SelfServ Checkout Configuration | Weight | |
|---|---|---|
| | kg. | lbs. |
| No Bag International Recycler | 188.2 | 415 |
| 1.0 Bag International Recycler | 267.0 | 588 |
| 2.0 Bag International Recycler | 288.4 | 635 |
| 3.0 Bag International Recycler | 300.7 | 663 |
| 3.0 Bag Japanese Recycler | 286.7 | 632 |
| Takeaway Belt (without Collection Area) | 399.6 | 880 |
| Collection Area (small) | 70.8 | 156 |
| Collection Area (large) | 102.5 | 226 |
| Input Belt (4 ft) | 81.2 | 179 |
| Input Belt (7 ft) | 122.5 | 270 |
| Small Footprint Credit/Debit | 147.0 | 324 |

**Note:** Full Function units are approximately 13.6 kg (30 lbs) lighter than the International Recycler units.

# Operating and Service Clearance Requirements

### Standard Units

| Location | Component | Distance | Reason |
|---|---|---|---|
| Above | Upper Cabinet Door | 24 in | Clearance above checkstand required to raise the upper cabinet door. |
| | Tri-Light Assembly | 96 in | Clearance for light fixture. |
| Front | Core Door | 20 in | Clearance required to open door. |
| | Cash Dispenser | 20 in | Clearance required to open door and fully extend Cash Dispense. |
| | Coin Recycler | 26 in | Clearance required to extend the Coin Recycler out of the unit. (The coin bin shelf should NOT be pulled out when the Coin Recycler is extended out of the unit.) |
| | Note Recycler | 20 in | Clearance required to extend Bank Note Recycler out of the unit.. |
| | Bagging Area | 18 in | Clearance required to open the door underneath the bag scale. |
| | Takeaway Belt | 26 in | Clearance required to remove drip trays. |
| | Input Belt | 26 in | Clearance required to remove drip tray. |
| Side | Bumper Only Input Option | 6 in | Clearance required to open door. |

**Note:** Do not cover ventilation holes located on both sides of the core unit.

### Small Footprint Credit/Debit Units

| Location | Component | Distance | Reason |
|---|---|---|---|
| Above | Tri-Light Assembly | 96 in | Clearance for light fixture. |
| Front | Core Door | 13 in | Clearance required to open door. |
| | Receipt Printer | 13 in | Clearance required to open door and fully extend Receipt Printer shelf. |
| | Bagging Area | 10 in | Clearance required to open the door underneath the 1-bag scale. |

| Location | Component | Distance | Reason |
|---|---|---|---|
| | Input Belt | 26 in | Clearance required to remove drip tray. |
| Side | Bumper Only Input Option | 6 in | Clearance required to open door. |
| | Input Shelf | 14 in | Clearance required for input shelf. |

**Note:** Do not cover ventilation holes located on both sides of the core unit.

# NCR SelfServ Checkout Configuration Options

The NCR SelfServ Checkout terminals can be configured in any number of lane arrangements. The following are general recommendations for encouraging customer flow, and some configuration examples.

## Recommendations

To encourage customer flow through the NCR SelfServ Checkout units:

- Position self-checkout lanes based on traffic patterns and location of other lanes in the store.
- Be consistent in self-checkout lane configurations across chain. Focus on one or two floor plans.
- Keep about 10-12 feet between self-checkout lanes in the courtyard of a quad grouping (see diagram below).
- Minimize cashier express lanes.
- Locate self-checkout lanes adjacent to existing express lanes.
- Locate self-checkout lanes near high traffic areas – near prepared food department, salad bars, milk, bread, etc.
- Make self-checkout visible to shoppers approaching checkout area.
    - Avoid obstructing lanes.
    - Remove excess carts/baskets and merchandise racks.
- Place remote attendant station within clear visibility of self-checkout lanes.
- Leave at least 1 foot of space between lanes placed back to back if a Wireless LAN is installed on the units.

For additional detail, refer to *NCR SelfServ Checkout 7346 Retail Implementation Guide* (B005-0000-1564).

# Securing Units to Floor

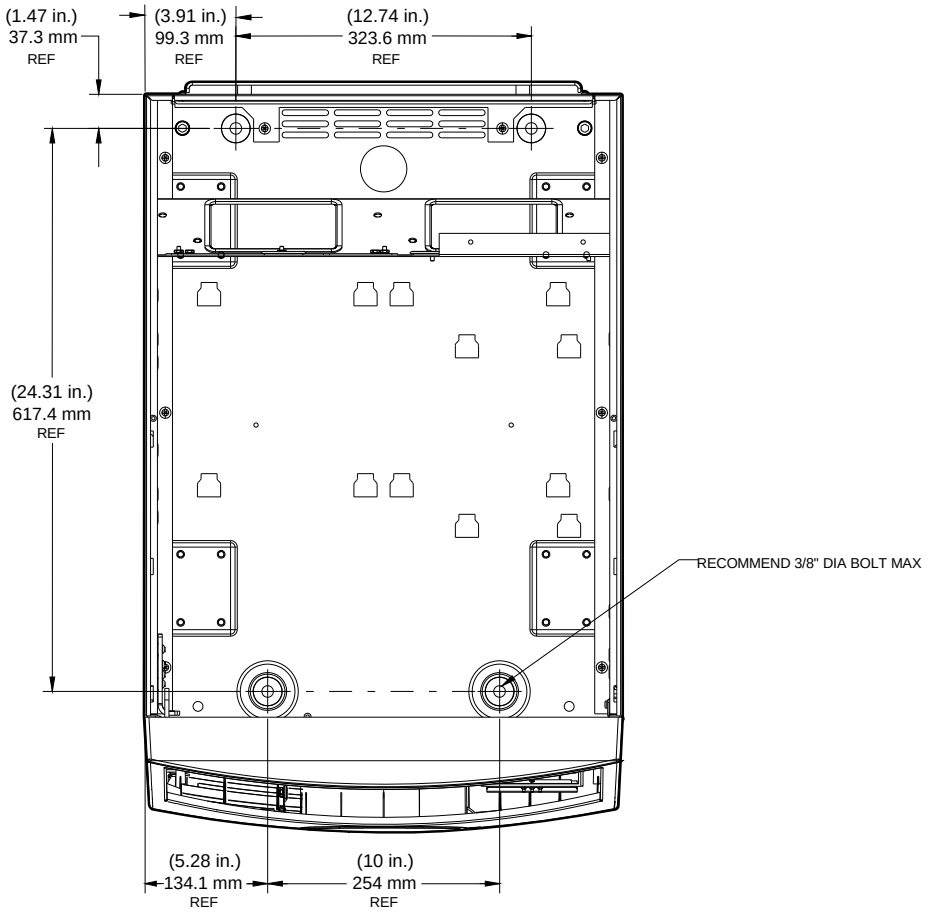
**Caution:** No Bag configurations must be secured to the floor using at least the back two holes.

To secure units to the floor permanently, the use of bolts anchored into the floor is recommended. Drop-in anchors or chemical floor anchors are also options for securing the unit to the floor.

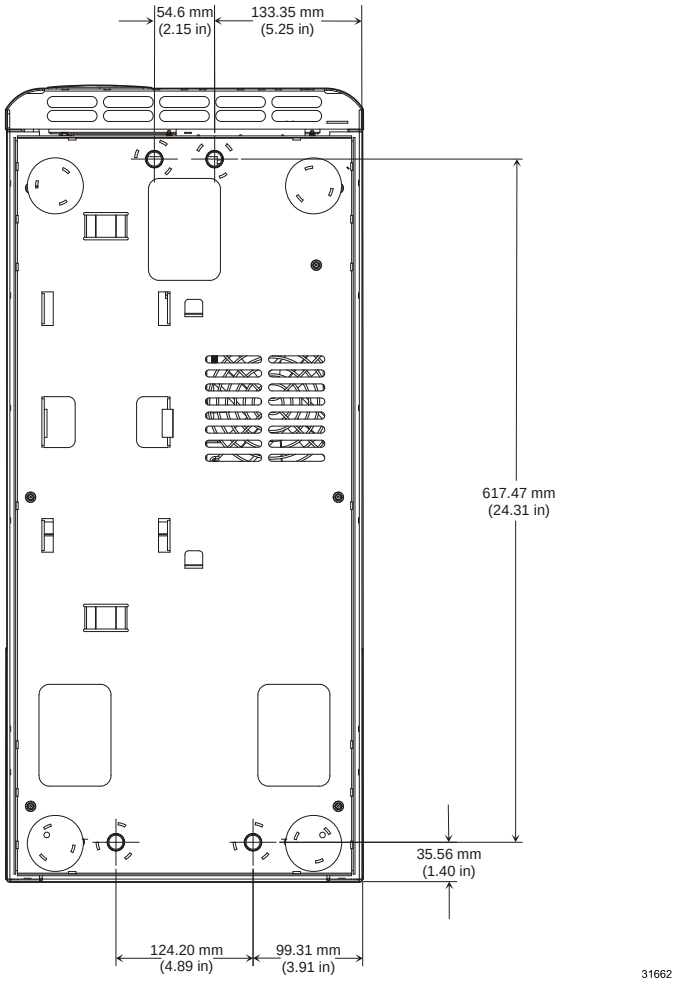
It is very important that no excess force be used when securing the unit to the floor as it will bend and damage the base.

The following diagrams show the location of the holes in the Core base that can be used to bolt the unit to the floor. It is very important that bolts are installed according to the dimensions provided in the diagrams.

## Standard Core



## Small Footprint Credit/Debit Core




Recommendations:

- The unit can be secured to the floor using four bolts (one in each of the four holes), or two bolts (one in front and one in back, located diagonally from each other).
- Use bolts that do not exceed 3/8 inch (10mm) in diameter.
- Nuts used to secure the unit to the bolts should be finger tight only and should not exceed 10 in-lbs.
- Bolts and nut should not exceed above flush in the front 2 core locations (directly behind the door). If the bolt or nut is above flush, it will interfere with access to the currency handling devices.
- Do not use Dynabolts or other expansion anchors to secure the unit to the floor. These are not recommended due to the excessive pressure they put on the unit. Excess pressure may cause permanent damage to the base and result in alignment issues with the unit.
- Level units before securing them to the floor.
- Contact your local NCR team for further recommendations.

# Environmental Requirements

## Barometric Pressure

The NCR SelfServ Checkout terminals are designed to operate within the following barometric pressure conditions:

- Maximum operating altitude: 3000 m (9843 ft)
- Operating range of pressure: 105 kPa to 69 kPa (15.2 lb/in. to 10.0 lb/in.)

## Airborne Noise Emissions

Sounds Pressure Level at workstations: $L_{pA}$ 70 db(A) measured under essentially free-field conditions over a reflecting plane in accordance with DIN EN 27779 (ISO 7779).

## Temperature

The NCR SelfServ Checkout terminals are designed to operate over the temperature ranges shown below. Continuous operation must be avoided, however, at or near the temperature extremes, or in locations where temperature changes exceed the temperature restrictions.

| Temperature Parameter | Restriction |
|---|---|
| Operating | 15°C to 32°C (59°F to 90°F), dry bulb |
| Storage | -10°C to 50°C (14°F to 122°F), three months |
| Shipping | -40°C to 60°C (-40°F to 140°F), one week |
| Dew Point | 26°C (79°F) maximum |

# Humidity

The NCR SelfServ Checkout terminals are designed to operate within the humidity ranges shown below. Continuous operation must be avoided, however, at or near the humidity limits, or in locations where humidity changes exceed the humidity restrictions. In no case should the NCR SelfServ Checkout terminals be subjected to condensation.

| Humidity Type | Restriction |
|---|---|
| Relative | 35% to 60% |
| Maximum change rate | 10%/60 minutes |
| Storage | 10% to 90% relative humidity, three months |
| Shipping | 5% to 95% relative humidity, one week |

# Unpacking the Checkstand

**Note:** The customer is responsible for relocating the NCR SelfServ Checkout equipment (checkstand and components) to the final installation location. The customer may option to engage contractor labor if necessary, however NCR personnel are not responsible for performing this activity.

1. Verify that the checkstand model number received is the same as the model number ordered.
2. Remove shrink wrap from unit.
3. Verify all components are available. Refer to “Hardware Component Checklist.”
4. Open the NCR SelfServ Checkout door and remove foam packing materials located between the devices.
5. If the unit contains a Japanese Note Recycler, remove desiccant packets from the reject unit in the Note Recycler.
6. Remove desiccant packets from Coin Storage area of Japanese Coin Recycler.

# Positioning Checkstand at Installation Location

1. Identify location for checkstand. (See recommendations below.)
2. Remove the skirt from checkstand, if attached. (See procedure below.)
3. Remove checkstand from pallet. (See procedure below.)
4. Level checkstand. (See procedure below.)

## Identifying Checkstand Location

When selecting a location for installing the NCR SelfServ Checkout units, keep in mind that the security scales on the units can be adversely affected by any of the following:

- Fans, ceiling mounted blowers, or wind entering through nearby open doors reaching the scale top plate.

  Moving air may cause positive or negative pressure on the bag scale, or cause movement in the loose bags on the Bag Rack interfering with the scale operation. Avoid installing NCR SelfServ Checkout in close proximity to outside doors. Air handling equipment interfering with the NCR SelfServ Checkout units should be re-directed.

- Leveling feet not touching the floor, not evenly extended, or bent.

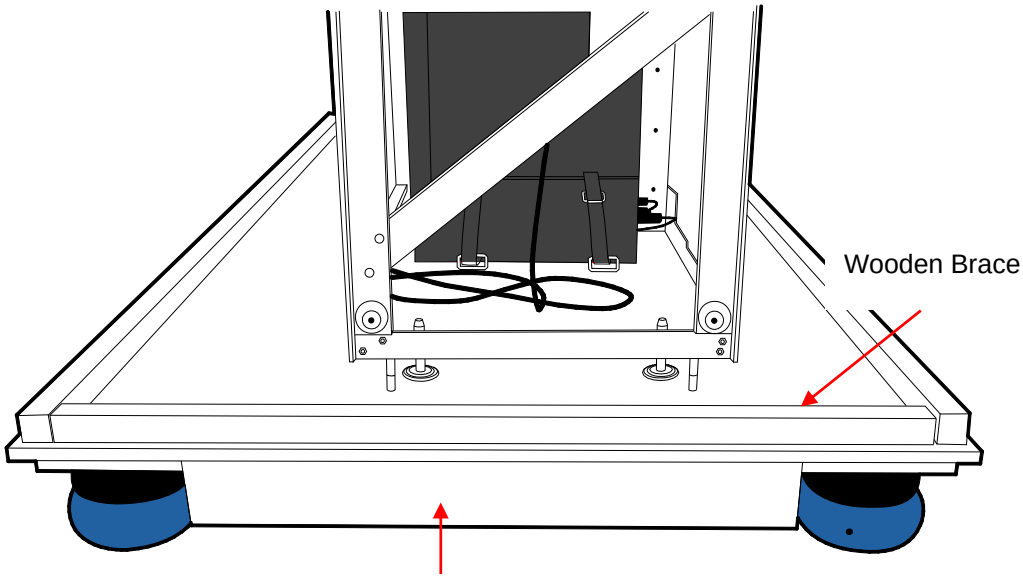
  All leveling feet must be extended, not just those in the front of the NCR SelfServ Checkout. The leveling feet should be extended raising the unit to a point where the transport casters are not supporting the NCR SelfServ Checkout unit's weight.

- Equipment/Floor vibrations.

  Mechanical equipment adjacent the NCR SelfServ Checkout (such as a soda machine or HVAC equipment) may introduce vibration into the NCR SelfServ Checkout unit. When the floor is not concrete over earth, the possibility of vibration or bounce in the floor system should be considered.

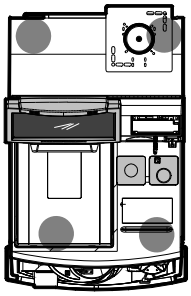
## Removing Checkstand from Pallet

1. Remove the 2 screws from the wooden brace board located behind the NCR SelfServ Checkout and remove the brace board.
2. Remove the 2 screws from pallet jack block and remove the block.



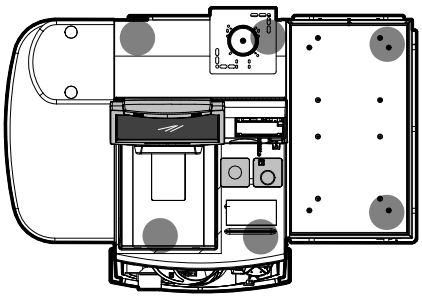

25955

3. Using a ¾ inch wrench with an extension, remove the shipping bolts securing the unit to the pallet. Shipping bolts are accessed from underneath the pallet. The following illustrations show the general location of each shipping bolt for the different configuration options.



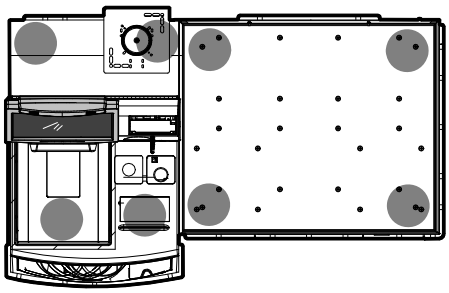
28191

*Core with No Bagwell*



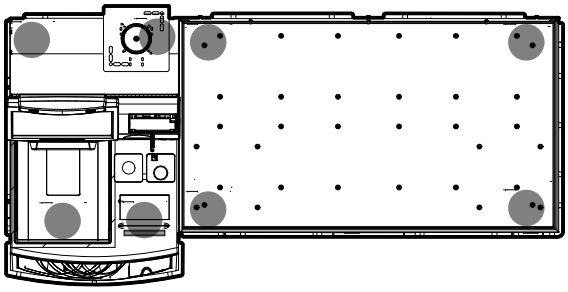
26569

*Core with 1 Bag Bagwell*



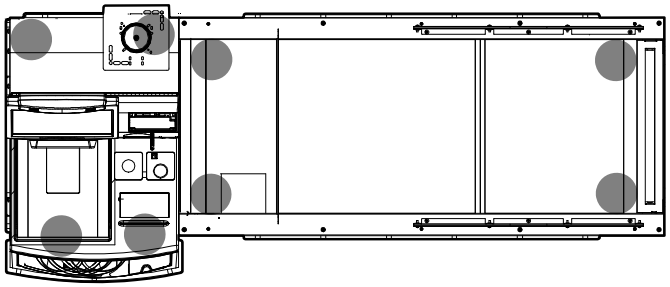
26570

*Core with 2 Bag Bagwell*



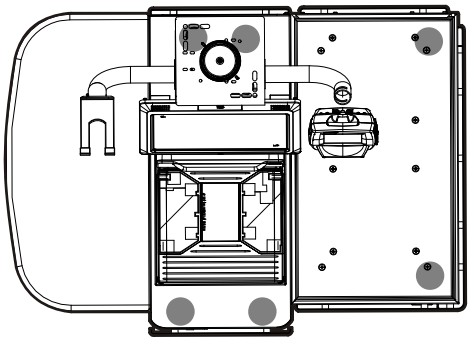
26572

*Core with 3 Bag Bagwell*



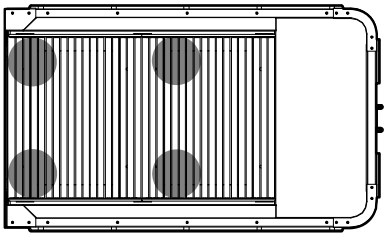
26573

*Core with Takeaway Belt*



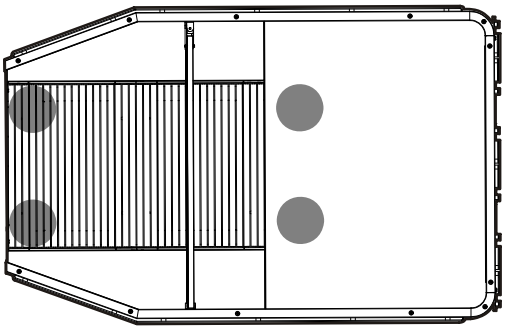
31678

*Small Footprint Credit Debit*



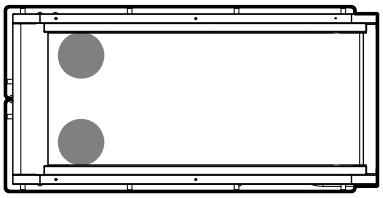
26574

*TAB  Collection Area (Small)*



30242

*TAB  Collection Area (Large)*



26571

*Input Belt*

Shipping bolts on earlier units are accessed from inside the unit. The following table provides information on locating the shipping bolts in earlier units.

| Unit | Shipping Bolt Locations |
|---|---|
| Core w/ Bill Dispenser | 1. Remove UPS to access bolt in front left corner.<br>2. Rack out Coin Recycler to access bolt in front right corner.<br>3. Remove back panel t access left and right rear bolts. |
| Core w/ Note Recycler | 1. Extend Coin Recycler to access bolt in front left corner.<br>2. Locate front right bolt under Note Recycler shelf.<br>3. Remove back panel to access left and right rear bolts. |
| Core w/ Japanese Recyclers | 1. Remove UPS to access bolt in front left corner.<br>2. Remove back panel to access left and right rear bolts. |
| 1 Bag Bagwell | Open door in bag well to access the two shipping bolts. |
| 2 Bag Bagwell | Open door in bag well to access the four shipping bolts. |
| 3 Bag Bagwell | Open door in bag well to access the four shipping bolts. |
| Takeaway Belt | Open door underneath takeaway belt to access bolts nearest core. Bolts at end of takeaway belt are easily accessed through opening. |

4. Verify that all leveling feet are up completely. If they are not, use a 5/16 socket to retract the leveling feet to the full up position.
5. Remove the ½ inch bolts securing the two donut shaped pallet feet located at the end where you removed the brace board.
6. Lift the unit up with the pallet jack to remove the donut feet from underneath the pallet.
7. Lower the pallet carefully. The pallet will tilt.
8. Slide the unit off the pallet and roll the NCR SelfServ Checkout to the final installation location.

## Leveling the NCR SelfServ Checkout Checkstand

Proper leveling and stability of the NCR SelfServ Checkout checkstand is critical for the security scale to operate correctly. Before leveling, the NCR SelfServ Checkout checkstand should be placed in its permanent location.

**Note:** If the NCR SelfServ Checkout checkstand is moved in any way after leveling has been performed, the leveling of the checkstand should be rechecked to verify that the unit does not rock or wobble.

**Note:** If unit is to be secured to the floor with bolts, place the unit into position over holes in floor, level the unit, and then secure in place with bolts.

1. Drop all of the leveling feet until they touch the floor, then continue to lower the leveling feet and additional ¼ inch so that the wheels are no longer touching the floor. Refer to the following tables to identify the method to use to access each leveling foot.
2. Place a level left-to-right on the plate next to the scanner bucket.
3. Adjust the leveling feet to obtain a level left-to-right reading.
4. Turn the level so that it sits front-to-back on the plate next to the scanner bucket. Determine and make any adjustments necessary.
5. Verify that the unit is still level from left-to-right by placing the level left-to-right on the scale plate or takeaway belt. Make any adjustments necessary.
6. Check to make sure the unit does not wobble or rock by placing hands and exerting moderate pressure on various parts of the checkstand.
7. Verify that all leveling feet are solidly on the floor and that **no wheels are touching the floor**. A piece of paper should slide underneath the wheels with no resistance. Sometimes the feet previously adjusted may rise off the floor when other feet are adjusted.
8. Install the skirt panels on the unit. (See procedure below)

**Note:** Raising the terminal too high during leveling may cause the skirt to not touch the floor when it is installed and adjusted.

## Leveling Takeaway Belt Units

**Note:** The Takeaway Belt should not be leveled until after the Collection Area has been attached.

1. Drop all of the leveling feet until they touch the floor, then continue to lower the leveling feet and additional ¼ inch so that the wheels are no longer touching the floor.
2. Adjust the unit's left to right level by placing a level left-to-right on the center of the larger belt. Determine and make any adjustments necessary.
3. Adjust the unit's front-to-back level by placing the level front-to-back on the center of the larger belt. Determine and make any adjustments necessary.
4. Verify that the unit is still level from left-to-right by placing the level left-to-right back on the larger belt. Make any adjustments necessary.
5. Check to make sure the unit does not wobble or rock by placing hands and exerting moderate pressure on various parts of the checkstand.
6. Verify that all six leveling feet are solidly on the floor and that **none of the eight wheels are touching the floor**. A piece of paper should slide underneath the wheels with no resistance. Sometimes the feet previously adjusted may rise off the floor when other feet are adjusted.
7. Install the skirt panels on the unit. (See procedure below)

**Note:** Raising the terminal too high during leveling may cause the skirt to not touch the floor when it is installed and adjusted.

# Installing the Remote Attendant Station

1. Roll the Remote Attendant Station Checkstand to the final installation location.
2. Level the Remote Attendant Station Checkstand.
3. Attach the skirt around the bottom of the checkstand (if present) and tighten the screws that hold the skirt in place.
4. Install the NCR SelfServ Checkout Remote Attendant Terminal. (See procedures below.)
5. Install other Remote Attendant hardware peripheral devices. (See procedures below.)

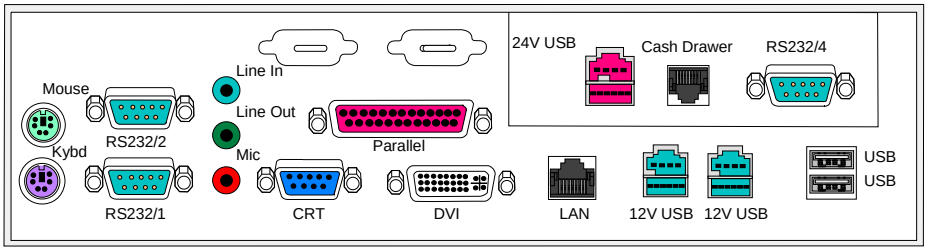
## Installing the NCR SelfServ Checkout Remote Attendant Terminal

### NCR 7402 Option

Before installing the NCR SelfServ Checkout Remote Attendant Terminal on the Remote Attendant Checkstand, install and configure the Remote Attendant Software on the NCR 7402 Terminal. Refer to the book *NCR SelfServ Checkout 7343 RAP Installation and Configuration Guide* (B005-0000-1559) for detailed information on installing and configuring the Remote Attendant software.

To install the NCR SelfServ Checkout Remote Attendant Terminal on the Remote Attendant Station Checkstand:

1. Place the terminal on the top counter of Remote Attendant Station Checkstand.
2. Attach the peripheral and power cables to the NCR 7402.



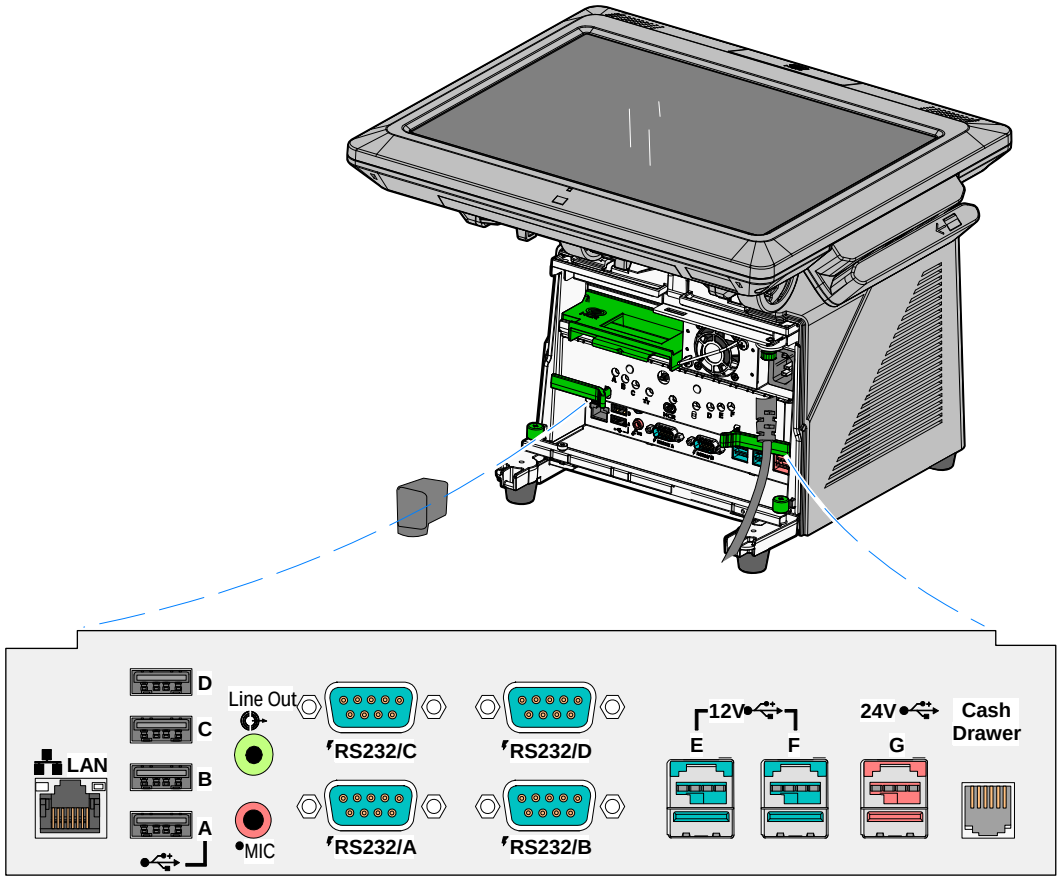

20917

3. Route the cables down through the opening on the checkstand surface.

### NCR 7403 Option

To install the NCR RealPOS 70xrt (NCR 7403) as the NCR SelfServ Checkout Attendant Terminal:

1. Place the NCR RealPOS 70xrt (7403) POS Workstation on the top counter of Remote Attendant Station Checkstand.
2. Attach the peripheral and power cables to the terminal.

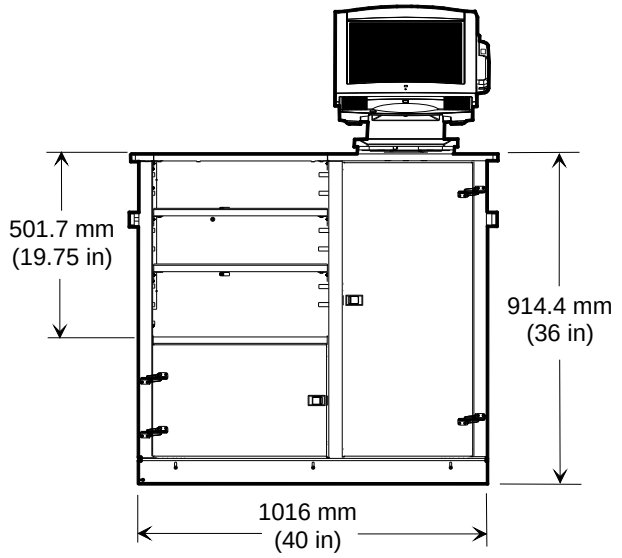



26297b

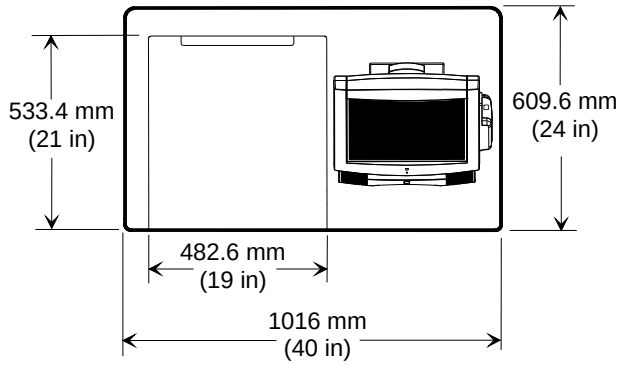
3. Route the cables down through the opening on the checkstand surface.

## Installing Remote Attendant Hardware Peripherals

The standard NCR SelfServ Checkout Remote Attendant Station’s flexible design can accommodate a modular POS terminal on shelves within the Checkstand and peripherals on top of the Checkstand, an integrated POS terminal recessed into the Checkstand, or remote tendering devices.

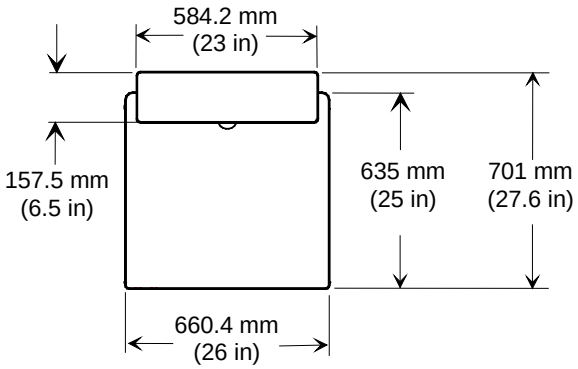



19446

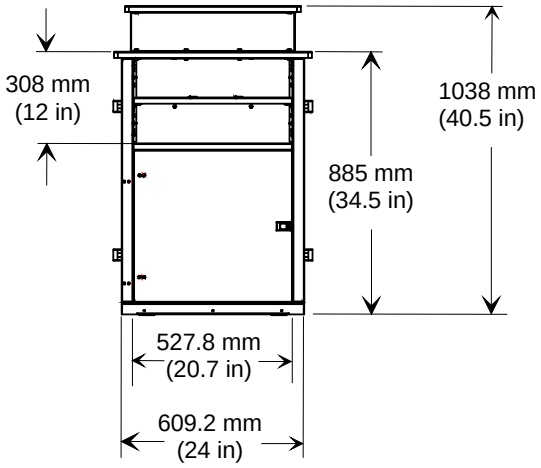



19791

The compact NCR SelfServ Checkout Remote Attendant Station is designed to accommodate the Remote Attendant Terminal, receipt printer and hand scanner on top of the Checkstand. A cash drawer can fit on the adjustable shelf.




20261

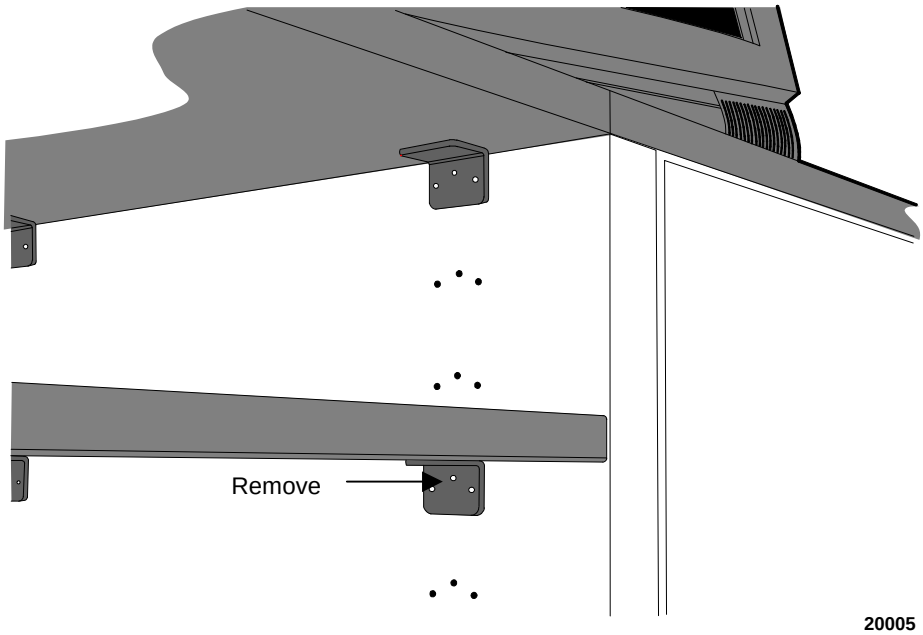



20262

1. Adjust the shelving to accommodate the hardware components you will be installing. The standard Remote Attendant Checkstand has one stationary shelf and three removable shelves. One of the removable shelves is flush with the top counter. The compact Remote Attendant Station has one stationary shelf and one adjustable shelf in addition to the top counter.
2. Place hardware devices on Remote Attendant Checkstand according to store's preference.
3. Route the interface cables from the NCR 7402 and attach them to the corresponding device.

## Adjusting Shelves

The Remote Attendant Checkstand supports shelf adjustments at two inch intervals.




**20005**

To adjust the shelves:

1. Remove the wood screws that attach shelf to the brackets and remove shelf.

2. For each bracket, remove the screw that attaches the bracket to the checkstand.
3. Move the brackets to the desired shelf location and align brackets with holes in Remote Attendant Checkstand.
4. Attach each bracket to the Remote Attendant Checkstand walls with one screw.
5. Attach the shelf to each bracket with one wood screw.

### Routing Cables

The Remote Attendant Checkstand has a one-inch space behind each shelf to allow for routing cables.

A cutout in the floor of the Remote Attendant Checkstand supports routing of power into the unit.

A

# *Appendix A:* Transient Protection

## AC Power Line Transient Protection

In the process of power distribution, transient electrical energy (including, but not limited to, lightning strikes, intermittent short circuits, and switching transients) can be introduced onto power lines. Such transient energy can be very damaging to electronic hardware, and can also cause data corruption. Under these circumstances, NCR recommends the use of AC power transient suppressors. Such protection devices are intended to guard against power line transients that can result in hardware damage and various system or program errors.

Improvement of any deficiencies in power quality is a customer responsibility. Malfunction and/or component failure as a result of power quality problems are/is not covered by the NCR Maintenance Agreement. NCR accepts no liability for any such occurrence or for its consequences.

When power transient suppression is required, the suppressors used should meet the following minimum requirements:

- Dissipate energy to match the appropriate application categories as defined by IEEE Standard 587.
- Be of the voltage limiting (clipping), or tracking filter type. The suppressor must not clamp the voltage to zero, and must self-recover after the passage of the transient. The suppressor may be of the hybrid type construction that makes use of various technologies in order to meet speed and dissipation requirements.
- Upon failure, exhibit a positive indication of its failure such as a blown fuse or tripped breaker.
- Be listed by the accepted safety organization for the country involved (UL, CSA, VDE, ETL, and so on) and the installation must conform to local, state, and national electrical codes and regulations.

## Data Line Transient Protection

The nature of the transient phenomenon may extend to the data communication lines connected to this equipment. It is the responsibility of the customer to install and connect a data line transient suppression system to correct or prevent any deficiencies. Such systems must meet the following minimum requirements:

- Be of the voltage limiting type and must self-recover after passage of the transient.
- Must be designed to avoid signal degradation for the given interface they are attached to.
- Be installed in accordance with all applicable local, state, and national electrical codes and regulation.

**Note:** NCR provides a full line of both AC power and data line transient surge suppressors to protect your NCR SelfServ Checkout system and reduce downtime and extend the life of the NCR SelfServ Checkout retail solution. For sizing and product information, please call NCR Site Preparation Services at 800-257-0458.

The following product offerings are available from NCR Site Preparation Services:

- UPS – Uninterruptible Power Systems
  - Provides battery backup for power outages and brownouts.
  - Includes AC and data line surge protections.
  - If needed, certain models provide basic voltage regulation.
  - Small size provides easy installation.
- Line Conditioners / Filters
  - Incorporates an Isolation transformer or filter that provides 100% isolation from disturbances on the incoming AC power line.
  - Removes EMI/RFI noise that causes equipment lockups.
  - Reduces common mode noise issues and surges/transients.
  - Significantly reduces POS downtime and component failure.
- Transient Voltage Surge Suppressors
  - Provides protection from catastrophic AC surges/transients.
  - Provides data line protection from catastrophic surges that can migrate onto the data line and network.