

NCR SelfServTM 32 ATM Site Preparation

FEDERAL COMMUNICATIONS COMMISSION (FCC) RADIO FREQUENCY INTERFERENCE STATEMENT

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Canadian Class A Device Declaration

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Réglement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

Information to User

This equipment must be installed and used in strict accordance with the manufacturer's instructions. However, there is no guarantee that interference to radio communications will not occur in a particular commercial installation. If this equipment does cause interference, which can be determined by turning the equipment off and on, the user is encouraged to consult an NCR service representative immediately.

CAUTION

NCR Corporation is not responsible for any radio or television interference caused by unauthorised modifications of this equipment or the substitution or attachment of connecting cables and equipment other than those specified by NCR. Such unauthorized modifications, substitutions, or attachments may void the user's authority to operate the equipment. The correction of interference caused by such unauthorized modifications, substitutions, or attachments will be the responsibility of the user.

The ATM complies with the following Electromagnetic Compatibility (EMC) directives and standards for IT equipment:

- 2004/108/EC EMC Directive.
- 93/68/EEC 'CE Marking Directive'.

For further information, refer to the Electromagnetic Compatibility (EMC) and Safety section.

NOTICE

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 all specifications and requirements of NCR and all applicable national, state, or local codes, regulations and laws.

The product described in this book is a licensed product of NCR Corporation.

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Other product names mentioned in this publication may be trademarks or registered trademarks of their respective companies and are hereby acknowledged.

It is the policy of NCR Corporation (NCR) to improve products as new technology, components, software, and firmware become available. NCR, therefore, reserves the right to change specifications without prior notice.

All features, functions, and operations described herein may not be marketed by NCR in all parts of the world. In some instances, photographs are of equipment prototypes. Therefore, before using this document, consult with your NCR representative or NCR office for information that is applicable and current.

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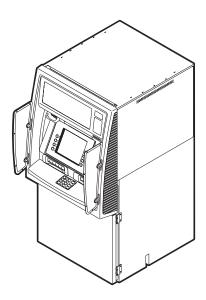
NCR SelfServ 32 ATM Site Preparation

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NCR SelfServ 32 ATM Site Preparation

INTRODUCTION



The NCR SelfServ 32 Automated Teller Machine (ATM) is a freestanding interior ATM that is available in front or rear access variants.

In all illustrations within this manual, the front access will be used, except where the text relates specifically to the rear access.

Note: All dimensions are rounded to the nearest millimetre and equivalent fraction of an inch.

How to Use This Site Preparation Bookset

The site preparation is part of the NCR SelfServ 32 ATMs Site Preparation Bookset. It acts both as a specifications book, and also as a gateway to the other book in the bookset, which is:

• NCR SelfServ 32, 34 and 38 Site Preparation Requirements (B006-6670)

Purpose and Audience

This book is intended for architects and those responsible for preparing a site prior to the arrival of the ATM.

Site preparation details are given under the following main sections within this book:

Package Dimensions

ATM Dimensions

Access for All

<u>Installation and Service Clearances</u>

Requirements for the Floor

Bolt Hole Locations

Camera

Site Compliance

This document contains the information necessary for the preparation of a site conforming to NCR specifications. It is very important that the site complies with the requirements specified in this 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 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 the site be prepared by a customer or his agent who is fully conversant with the special requirements of electronic equipment. The responsibility for 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 but, except where:

- a the customer has been notified that a full or partial consultancy service is available and/or that NCR will be willing to undertake a preliminary or final site survey and
- b 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 of its preparation and NCR will not be liable in respect of any comment, suggestion or advice given by its staff or in respect of any failure to give advice.

Finally, only the customer can know the full extent of damage which may be caused to his business by reason of failure of the equipment which 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 in respect of it.

Customer Responsibilities

The customer must do or provide the following:

- When required by NCR, provide the NCR customer service representative with appropriate drawings that indicate:
 - Location of the equipment
 - Site wiring (power and signal, paths and lengths)
 - Location of other equipment capable of generating electrical noise, electromagnetic interference, heat, etc.
- 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, 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.
- Make sure the environmental requirements of the system/unit are met.

- Provide floor coverings and environmental systems that limit or control static electricity build-up and discharge.
- Install the product at a height which meets the accessibility regulations of the relevant country.

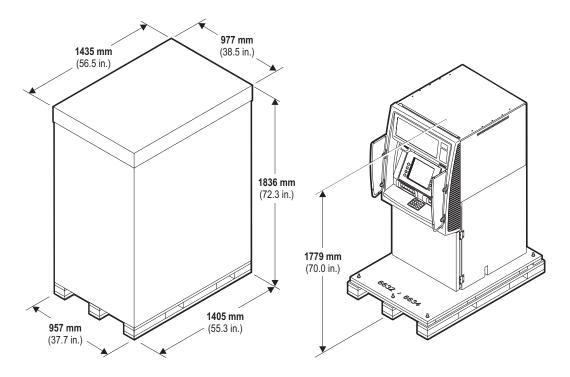
Product Identification

The product is identified by the class number, 6632, and a 4 digit model number, which is printed on a label fixed inside the top-box of the ATM. The serial number is unique to each ATM. The tracer number is used to identify where the ATM was built. Please quote all of the serial and tracer numbers, including the prefix, when making reference to the ATM.



PACKAGE DIMENSIONS

The dimensions of a packaged ATM, with and without the carton and lid, are shown below.



Manoeuvring the ATM Into Position

Ensure that doorways and corridors leading to your point of installation are wide enough to allow the package to pass through, or make arrangements to unpack the ATM in an area with sufficient access and then move it to the installation site. Also make sure that any corridors can support the weight of the ATM. Refer to page 27 for the maximum weight of the ATM and its floor loading.

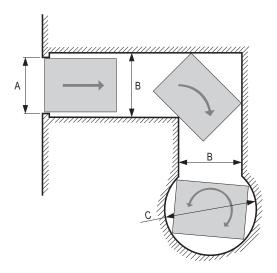
Note: If the corridor and corner are not wide enough to allow an ATM with privacy panels to pass through, the panels can be removed and installed later.

Manoeuvring a Packaged ATM

The following table gives the **minimum** dimensions for doorways, corridors with right angle corners and the space required to rotate a **packaged** ATM on its axis.

Note 1: The dimensions assume the ATM is being moved using equipment that does not extend beyond the ATM or packaging.

Note 2: A surrounding clearance of **6 mm** (0.2 in.) has been allowed in the dimensions.



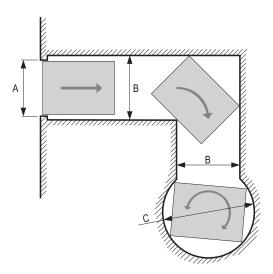
	Packaged ATM (pallet, carton and lid)	Packaged ATM (pallet and carton)
A Doorway or straight corridor	989 mm	969 mm
	(38.9 in.)	(38.1 in.)
B Corridor with corner	1224 mm	1199 mm
	(48.2 in.)	(47.2 in.)
C Rotation about centre	1748 mm	1712 mm
	(68.8 in.)	(67.4 in.)

Manoeuvring an Unpackaged Front Access ATM

The following table gives the **minimum** dimensions for doorways, corridors with right angle corners and the space required to rotate an **unpackaged** ATM on its axis.

Note 1: The dimensions assume the ATM is being moved using equipment that does not extend beyond the ATM or packaging.

Note 2: A surrounding clearance of **6 mm** (0.24 in.) has been allowed in the dimensions.



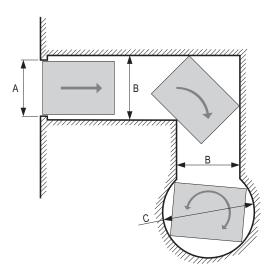
	With Privacy Panels		Without Privacy Panels	
	Standard Rear Panel	Extended Rear Panel	Standard Rear Panel	Extended Rear Panel
A Doorway or straight corridor	796 mm (31.3 in.)	796 mm (31.3 in.)	796 mm (31.3 in.)	796 mm (31.3 in.)
B Corridor with corner	976 mm (38.4 in.)	980 mm (38.6 in.)	947 mm (37.3 in.)	951 mm (37.4 in.)
C Rotation about centre	1381 mm (54.4 in.)	1391 mm (54.8 in.)	1298 mm (51.1 in.)	1308 mm (51.5 in.)

Manoeuvring an Unpackaged Rear Access ATM

The following table gives the **minimum** dimensions for doorways, corridors with right angle corners and the space required to rotate an **unpackaged** ATM on its axis.

Note 1: The dimensions assume the ATM is being moved using equipment that does not extend beyond the ATM or packaging.

Note 2: A surrounding clearance of **6 mm** (0.24 in.) has been allowed in the dimensions.



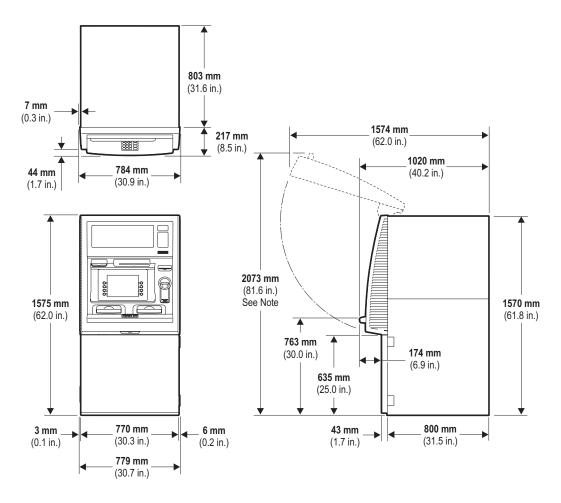
	With Privacy Panels	Without Privacy Panels
A Doorway or straight corridor	796 mm (31.3 in.)	796 mm (31.3 in.)
B Corridor with corner	994 mm (39.13 in.)	965 mm (38.0 in.)
C Rotation about centre	1432 mm (56.4 in.)	1348 mm (53.0 in.)

ATM DIMENSIONS

The following illustrations show dimensions for ATMs configured with CEN Grade L, CEN Grade II, CEN Grade IV Spanish Certified and UL 291 Level 1 security enclosures. Refer to page 28 for the dimensions of the cable access hole.

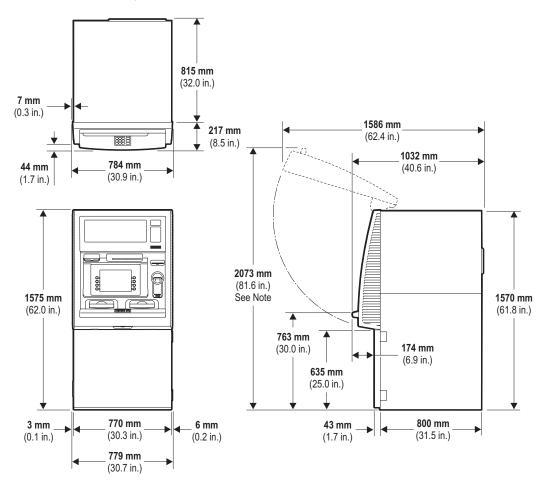
Front Access

The illustration below shows the dimensions for a front access ATM configured with a CEN Grade L, CEN Grade I, CEN Grade III, CEN Grade IV Spanish Certified or UL Level 1 security enclosure.



Front Access with Extended Rear Panel

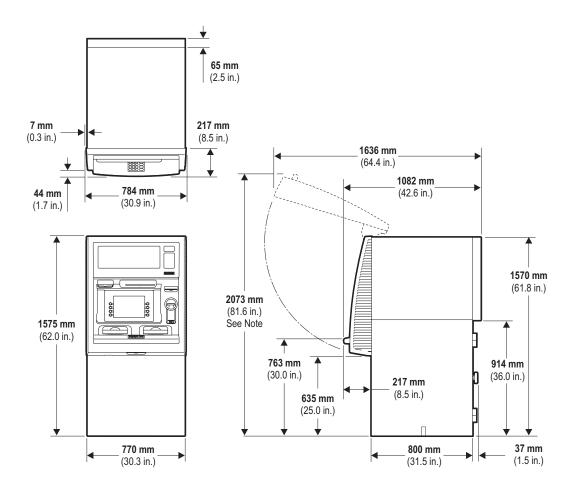
For some front access configurations, such as with the Dual Roll Receipt Printer, the rear panel has an extra extension increasing the overall depth of the ATM. The illustration below shows the dimensions for a front access ATM configured with an extended rear panel and a CEN Grade L, CEN Grade I, CEN Grade III, CEN Grade IV Spanish Certified or UL Level 1 security enclosure.



Rear Access

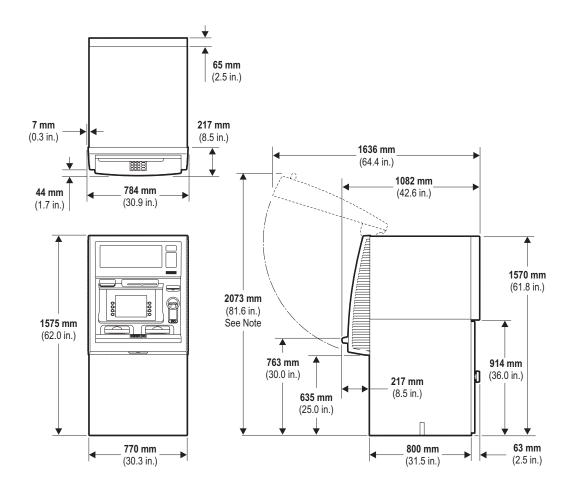
UL Security Enclosure

The illustration below shows the dimensions for a rear access ATM configured with a UL security enclosure.



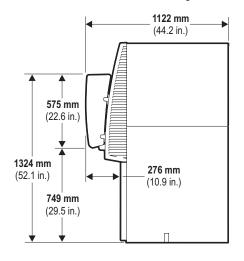
CEN Security Enclosure

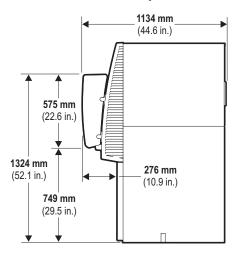
The illustration below shows the dimensions for a rear access ATM configured with a CEN Grade L, CEN Grade I, CEN Grade III or CEN Grade IV Spanish Certified security enclosure.



Privacy Panels

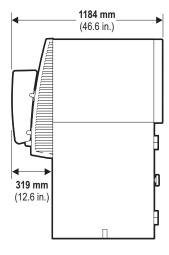
The illustration below shows the ATM with privacy panels fitted to either side of the facia. The dimensions are the same for ATMs configured with a CEN Grade L, CEN Grade I, CEN Grade III, CEN Grade IV Spanish Certified or UL Level 1 security enclosure.





Front Access

Front Access with Extended Rear Panel



Rear Access

ACCESS FOR ALL

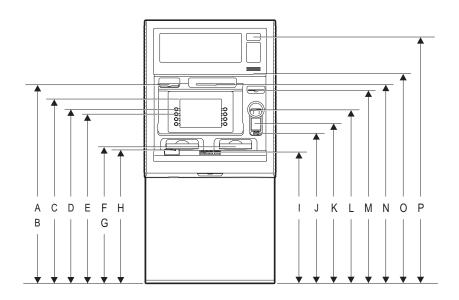
The ATM has been designed to meet the height and reach requirements of both the ablebodied and the disabled. For wheelchair users, the ATM offers optimised parallel approach, providing easy access, security and private space if installed according to the specifications detailed in this document.

Height and Depth to Main Facia Items

The following table gives the height and depth to the main facia items located on the facia. All the height dimensions are calculated from the base of the ATM.

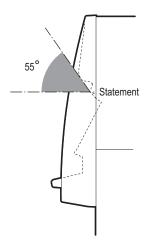
		Facia Item	Height (from base of ATM)	Depth (from front of shelf)
A		Cheque Entry	1185 mm (46.7 in.)	183 mm (7.2 in.)
В	(\$)	Coin Exit	1191 mm (46.9 in.)	178 mm (7.0 in.)
C		381 mm (15.0 in.) Touchscreen Display	1126 mm (44.3 in.)	244 mm (9.6 in.)
		307 mm (12.1 in.) Touchscreen Display	1105 mm (43.5 in.)	231 mm (9.1 in.)
D		381 mm (15.0 in.) Display - 1st FDK	1054 mm (41.5 in.)	193 mm (7.6 in.)
	9000	307 mm (12.1 in.) Display - 1st FDK	1043 mm (41.1 in.)	184 mm (7.2 in.)
E		381 mm (15.0 in.) Display - 2nd FDK	1019 mm (40.1 in.)	174 mm (6.9 in.)
	0 000	307 mm (12.1 in.) Display - 2nd FDK	1014 mm (39.9 in.)	172 mm (6.8 in.)
F	75	Cash Exit or Entry	822 mm (32.4 in.)	152 mm (6.0 in.)
G		Envelope Exit or Entry	822 mm (32.4 in.)	152 mm (6.0 in.)
Н		Fingerprint Reader	805 mm (31.7 in.)	67 mm (2.6 in.)
I	5 JKL	No. 5 Key	786 mm (30.9 in.)	89 mm (3.5 in.)
J		Audio Jack Plug	900 mm (35.4 in.)	136 mm (5.4 in.)

K	Contactless Card Reader	954 mm (37.6 in.)	121 mm (4.8 in.)
L	Card Reader	1039 mm (40.9 in.)	152 mm (6.0 in.)
M	Receipt	1154 mm (45.4 in.)	170 mm (6.7 in.)
N	Statement Exit or Passbook Entry and Exit	1193 mm (47.0 in.)	193 mm (7.6 in.)
0	Barcode Reader	1251 mm (49.3 in.)	178 mm (7.0 in.)
	Barcode Activation Point	1081 mm (42.6 in.)	174 mm (6.9 in.)
P	Camera	1472 mm (58.0 in.)	175 mm (6.9 in.)

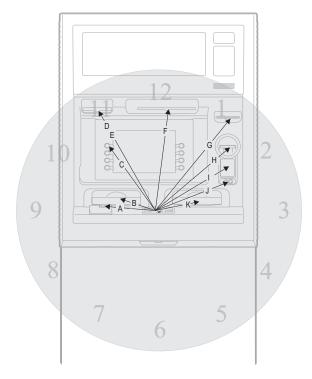


Topmost Viewable Facia Item

The following illustration shows the projected angle from the front of the ATM facia to the topmost viewable facia item.







	Facia Item	Distance from No. 5 Key	Clock Face Position
A	Fingerprint Reader	232 mm (9.1 in.)	9
В	Cash Exit and/or Entry or Envelope Exit and/or Entry	152 mm (6.0 in.)	9
С	381 mm (15.0 in.) Display - Top left-hand FDK	341 mm (13.4 in.)	11
C	307 mm (12.1 in.) Display - Top left-hand FDK	315 mm (12.4 in.)	11
D	Cheque Entry	457 mm (18.0 in.)	11
E	Coin Exit	463 mm (18.2 in.)	11
F	Statement Exit or Passbook Entry and Exit	409 mm (16.1 in.)	12
G	Receipt Exit	472 mm (18.6 in.)	1
Н	Card Reader	388 mm (15.3 in.)	2
I	Contactless Card Reader	340 mm (13.4 in.)	2

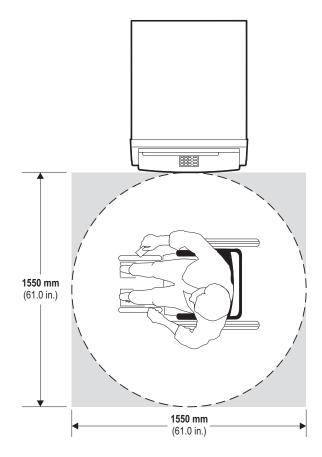
J	Audio Jack Plug	310 mm (12.2 in.)	2
K	Cash Exit or Envelope Exit and/or Entry	177 mm (7.0 in.)	3

Task Lighting

A minimum of 200 LUX is required for task lighting.

Wheelchair Clearance

The following illustration shows the clearance required for wheelchair approach and turning circle.



INSTALLATION AND SERVICE CLEARANCES

Important Notice to Users

If it is likely that the ATM will be upgraded with new modules as they become available, you should use the optimum clearances.

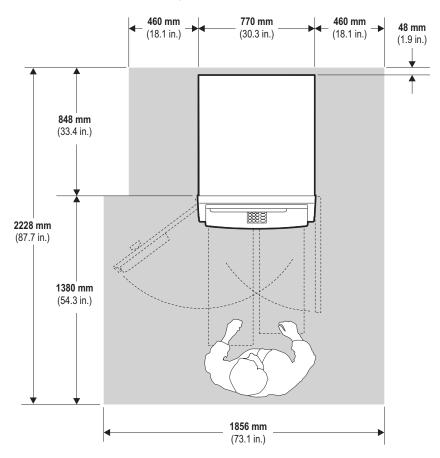
- **Note 1:** Increasing the area around the ATM will improve service access.
- Note 2: Any surround or enclosure that sits on top of the ATM must be self supporting.

Optimum Clearances

The following illustrations show the **optimum** areas required for installing and servicing the ATM.

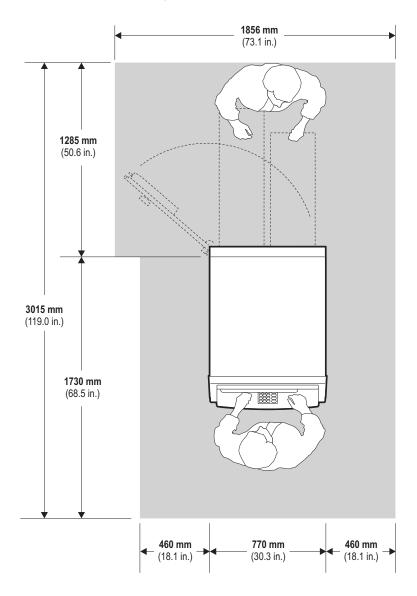
Front Access

The illustration below shows the optimum clearance dimensions for a front access ATM configured with a UL or CEN security enclosure.



Rear Access

The illustration below shows the optimum clearance dimensions for a rear access ATM configured with a UL or CEN security enclosure.

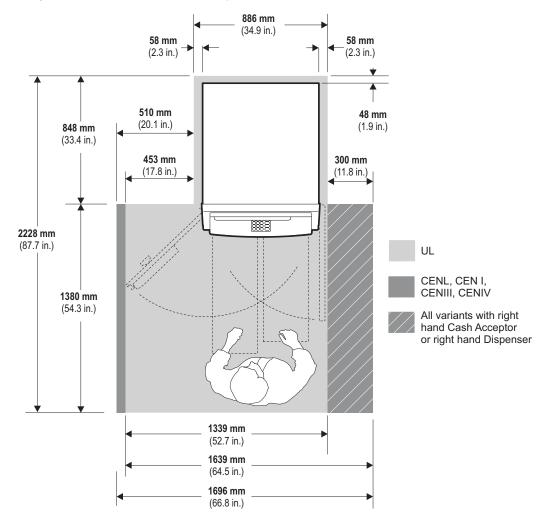


Minimum Clearances

The following illustrations show the **minimum** areas required for installing and servicing the ATM.

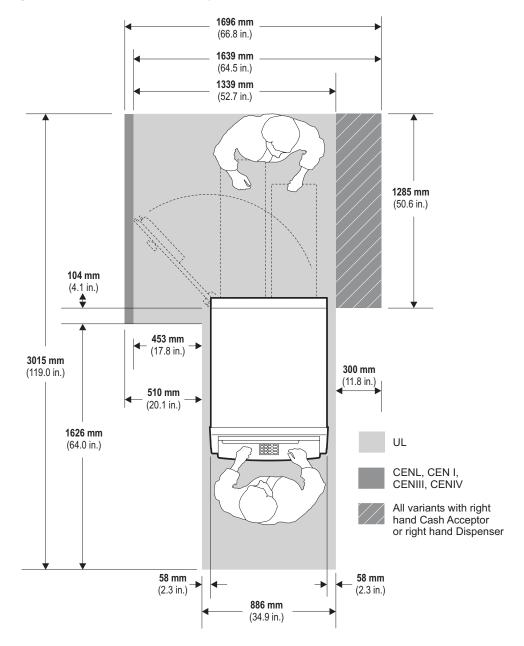
Front Access

The illustration below shows the minimum clearance dimensions for a front access ATM configured with a UL or CEN security enclosure.



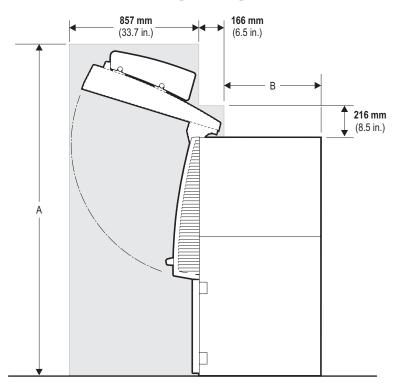
Rear Access

The illustration below shows the minimum clearance dimensions for a rear access ATM configured with a UL or CEN security enclosure.



Facia Opening Clearance

The illustration below shows the clearance required to open the facia.

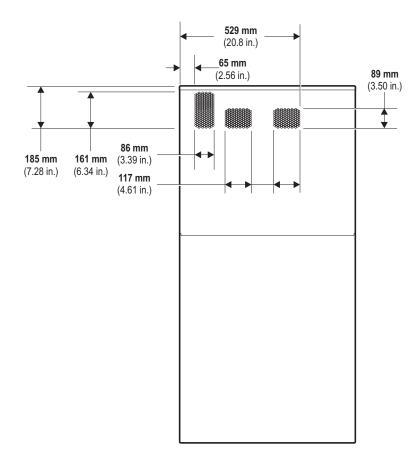


	Without Privacy Panels	With Privacy Panels		Front Access	Rear Access
A	2123 mm	2191 mm	D	640 mm	702 mm
A	(83.6 in.)	(86.3 in.)	В	(25.2 in.)	(27.6 in.)

Note: The 'B' dimension is taken from the rear of the ATM top-box on a front access ATM and the rear of the door on a rear access ATM (front access shown).

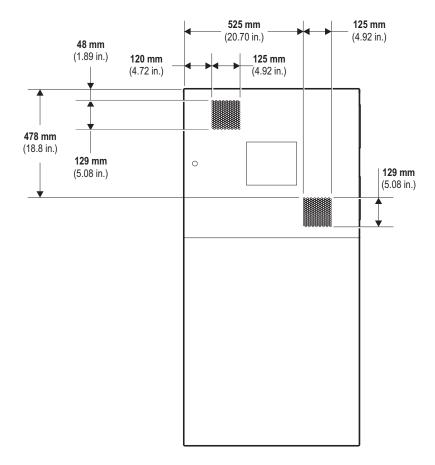
Hot Air Outlets - Front Access

The illustration below shows the position of the hot air outlets on the rear of the front access ATM.



Hot Air Outlets - Rear Access

The illustration below shows the position of the hot air outlets on the rear of the rear access ATM.



REQUIREMENTS FOR THE FLOOR

The ATM is suitable for mounting on a concrete or other non-combustible surface only.

Floor Covering

An antistatic floor covering should be used and must be of a type that will not generate dust or fluff. The surface on which the ATM is to be sited should be level and even. In locations where the floor may be uneven, it is recommended that a steel plate is used under the ATM.

Floor Loading

The ATM must be installed on a floor capable of supporting the maximum weight. Only the maximum weight should be considered as additional options may be added after installation.

	UL	CEN Grade L or CEN Grade I	CEN Grade III or CEN Grade IV Spanish Certified
Maximum weight without removable media	995 kg (2194 lb.)	1010 kg (2227 lb.)	1155 kg (2547 lb.)
Floor loading	1615 kg/m ² (331 lb./ft ²)	1640 kg/m² (336 lb./ft²)	1875 kg/m ² (384 lb./ft ²)

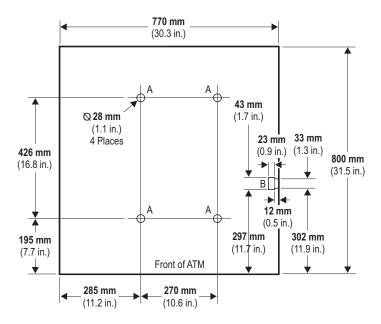
BOLT HOLE LOCATIONS

The following illustrations show a plan of the base of the ATM (viewed from above). The plan should be used for pre-drilling bolt holes 'A' and illustrates the design of the steel plate, if used.

Front Access

UL Security Enclosure Bolt Hole Locations

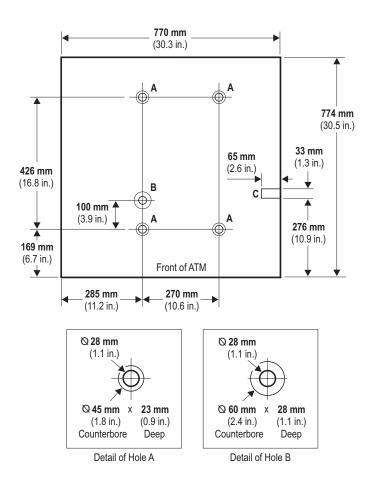
The illustration below shows the dimensions for a front access ATM configured with a UL security enclosure.



Note: The boundary marked with a 'B' shows the cable access hole for all cables.

CEN Security Enclosure Bolt Hole Locations

The illustration below shows the dimensions for a front access ATM configured with a CEN security enclosure.



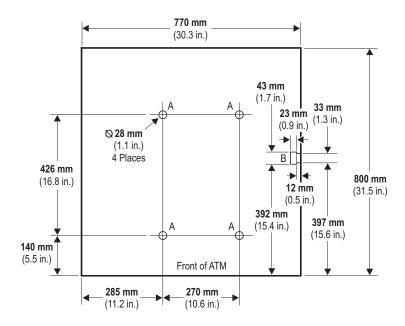
Note 1: The hole, marked with a 'B', enables a security alarm sensor to be fitted on CEN Grade L, CEN Grade I or CEN Grade III.

Note 2: The boundary marked with a 'C' shows the cable access hole for all cables.

Rear Access

UL Security Enclosure Bolt Hole Locations

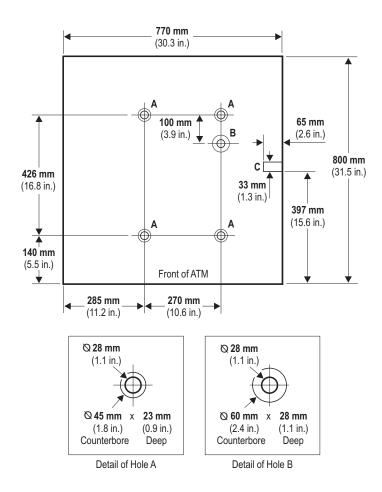
The illustration below shows the dimensions for a rear access ATM configured with a UL security enclosure.



Note: The boundary marked with a 'B' shows the cable access hole for all cables.

CEN Security Enclosure Bolt Hole Locations

The illustration below shows the dimensions for a rear access ATM configured with a CEN security enclosure.



Note 1: The hole, marked with a 'B', enables a security alarm sensor to be fitted on CEN Grade L, CEN Grade I or CEN Grade III.

Note 2: The boundary marked with a 'C' shows the cable access hole for all cables.

SECURITY BOLTS

To meet security standards the ATM must be bolted to the floor, through the 'A' holes, using four bolts with anchor washers as specified below. The floor must be capable of withstanding the loading imposed by the anchor points for the bolts. Bolts and anchor washers are to be supplied by the owning organisation.

The minimum specification for bolts to secure the ATM to a concrete floor and meet security standards, is high tensile M16 (5/8 in.) bolts with appropriate anchor washers of 6 mm (0.2 in.) minimum thickness. Bolts should be a minimum depth of 150 mm (5.9 in.) and either resin anchor bolts or shield anchor type bolts.

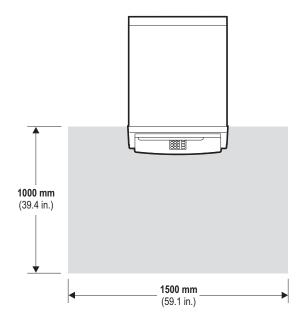
Note 1: Bolting of CEN security enclosures should comply with the requirements of EN 1143-1 (CEN Safe Burglary Standard).

Note 2: For CEN Grade L, CEN Grade I and CEN Grade III security enclosures there is an additional fifth central anchoring hole (hole 'B') of a larger counterbored diameter that can be used to fit a special local alarm sensor.

CAMERA

Ambient Lighting

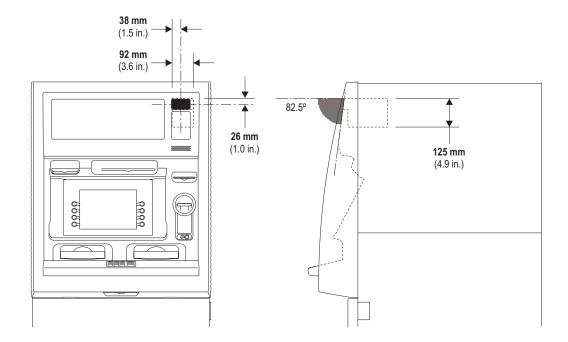
If the ATM is fitted with a camera, it is strongly recommended that there is a minimum of 50 LUX lighting at floor level within the area illustrated below.



Internal Space Constraint for Fitting a Third-Party Camera

If a third-party camera is to be installed, there is a space constraint to consider. The following illustration shows the space constraint dimensions.

A list of cameras that will fit within this space constraint can be found in the *ATMs Feature Descriptions* (B006-6451) book.

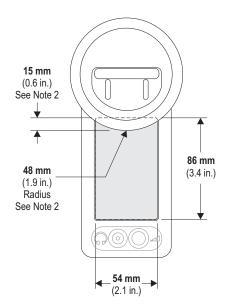


DECALS

This section provides specifications for the decals which you may wish to fit to the front of your ATM.

Card Orientation Window

If the window next to the Card Reader entry/exit slot is to be customised to indicate card orientation, the card/decal to be inserted into the window should be of the following dimensions.



The card/decal should be a maximum of **0.75 mm** (0.029 in.) thick.

Note 1: An industry standard credit card can be placed behind the card orientation window.

Note 2: Use these dimensions to design a card/decal graphic around the curve of the card reader.

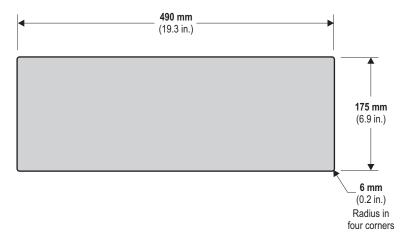
Note 3: Not suitable for use with the contactless card reader.

Standard or Enhanced Advert Light

The following illustrations show dimensions for an advert decal that can be placed on either the front or the inside of the window, depending on whether the window is opaque or clear.

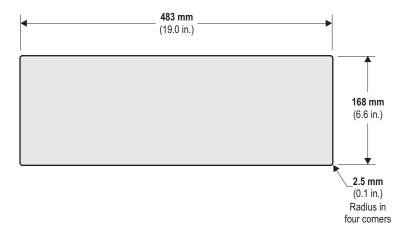
Opaque Window

Provided with the standard, non backlit advert panel.



Clear Window

Provided with the enhanced, backlit advert panel.



Entry/Exit Decals

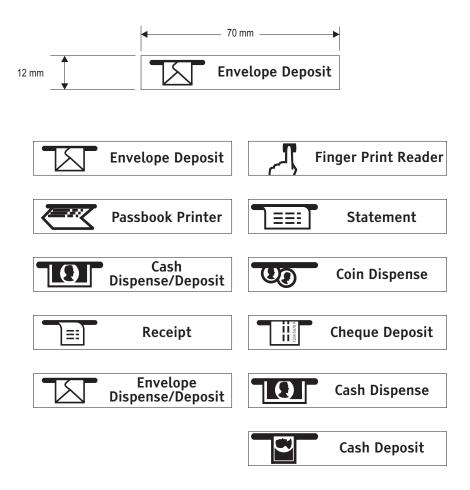
There are no recesses on the facia for entry/exit decals. However, if you wish to fit your own, the following are guidelines to the decal sizes, design and placement.

Decal Size and Design

The decals should be a maximum of **0.5 mm** (0.02 in.) thick and it is recommended that they be made from textured polycarbonate with 3M 467 High Performance MP adhesive.

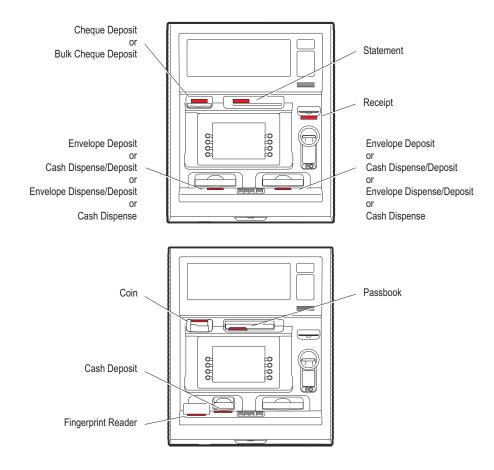
Decals should provide good contrast of at least 70% between foreground (text/icon) and background. A sans serif typeface should be used (Tiresias is recommended). The text size should be at least 14 point, and larger where possible. Where tactile decals are required they should be designed in line with specific country requirements.

Suggested icon designs and wording are illustrated below:



Decal Placement

The recommended placement of the decals is above or below the entry/exit slots, determined by the space available near the slot.



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