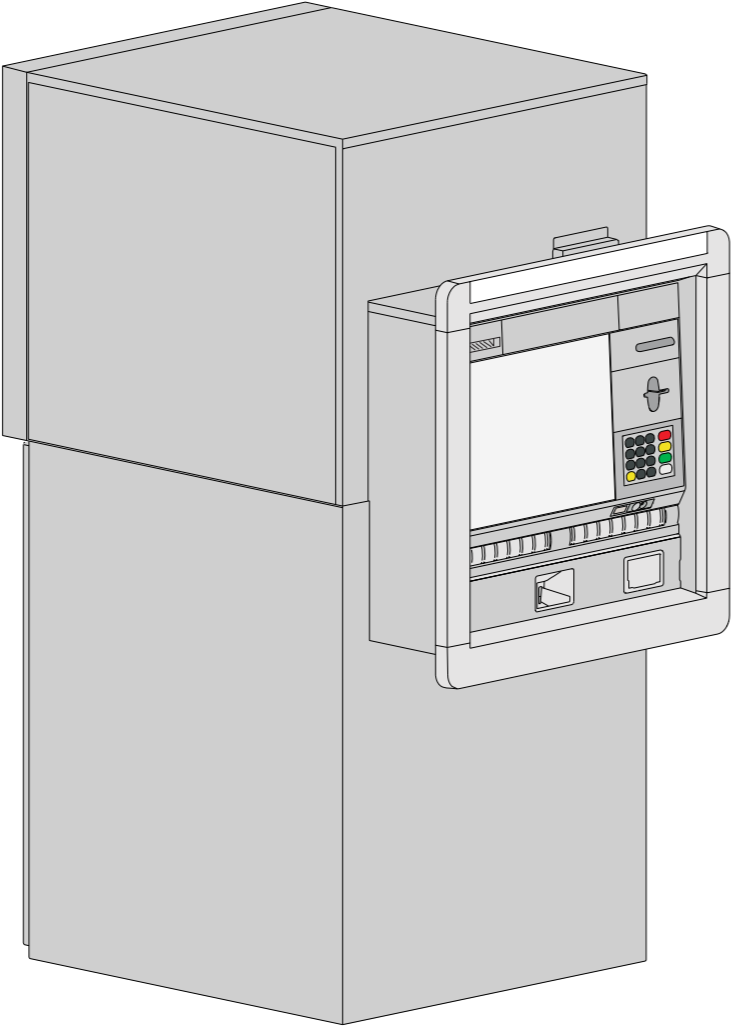




NCR SelfServ™ 84 Drive-Up ATM Site Preparation



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AUDIENCE

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

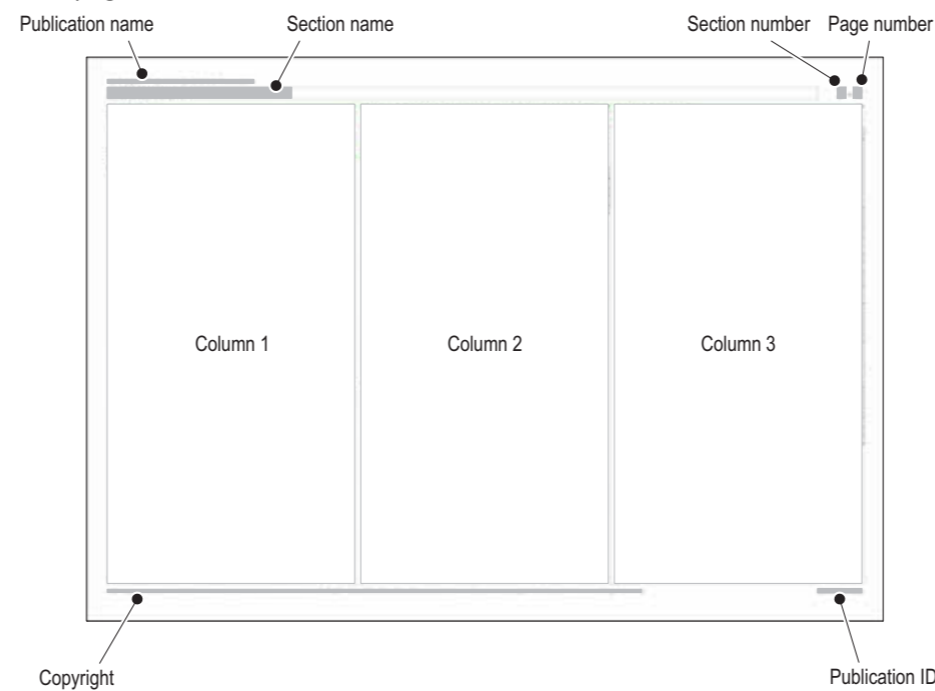
ABOUT THIS DOCUMENT

This site preparation document is designed to be read on wide aspect ratio screens. Each section has been structured to fit the maximum amount of information on the minimum number of pages yet still be readable when printed on A3 size paper. Printing on smaller paper sizes may reduce readability but will make handling easier.

The document is organised into sections covering the following topics:

- Introduction - this section
- Customer Responsibilities
- Standards Compliance
- Product Overview
- Site Requirements
- Power Requirements
- Cable Requirements
- Decals
- Variant Details - CEN I, Standard Collar
- Variant Details - CEN I, Advert Collar
- Variant Details - CEN III and IV, Standard Collar
- Variant Details - CEN III and IV, Advert Collar

Each page has two or three columns laid out as follows:



Where left and right side are stated the ATM is viewed from the front (facia side) of the ATM. All plan views are from the top unless otherwise stated.

Unless otherwise stated all dimensions are rounded to the nearest millimetre and equivalent decimal of an inch.

REVISION RECORD

Date	Revision	Pages	Reason for Change
January 2017	A	All	Initial release
February 2017	B	Various	Remove Statement Printer option
September 2017	C	Various	CEN III and IV (Std and EX GAS) added Safety Directive and Standard update Weights updated Product Identification label updated Service clearance update - LHS/RHS deposit modules Topbox clearance added Note added to Weight and Floor Loading sections

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 you, 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.

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 unauthorized 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.

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 ACTIONS

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.

RADIO FREQUENCY INTERFERENCE

FCC Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the Federal Communications Commission (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 you, the customer, will be required to correct the interference at your 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 Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

SAFETY

Safety Directive

- 73/23/EEC, 93/68/EEC 'Low Voltage Directive and Amendment'.

Harmonised Safety Standard

- EN 60950-1:2006+A2:2013 'Information Technology Equipment - Safety'

ELECTROMAGNETIC COMPATIBILITY (EMC)

Immunity Standards

The ATM complies with the following requirements for radiated and conducted immunity:

- EN 55024

As per the requirements of EN55024, the ATM complies with the requirements of the following normative Immunity Standard:

- EN 61000-4-2 Electrostatic Discharge
- EN 61000-4-3 Radiated RF
- EN 61000-4-4 Electrical Fast Transient/Burst
- EN 61000-4-5 Surge
- EN 61000-4-6 Conducted RF
- EN 61000-4-8 Power Frequency Magnetic Field
- EN 61000-4-11 Voltage Dips/Short Interruption.

EMC Directives

This equipment has been found to comply with the essential requirements of EMC Directive 2014/30/EU, by testing to harmonized standards EN55032, EN55024, EN61000-3-2 and EN61000-3. The equipment complies with the limits for a Class A digital device, pursuant to EN55032.

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

- 2014/30/EU 'EMC Directive'
- 93/68/EEC 'CE Marking Directive'

Emission Standards

The ATM complies with the following requirements for radiated and conducted emissions:

- EN55032 Class A
- FCC 47CFR Part 15. Class A
- CISPR 32 Class A
- AS/NZS 3548 Class A
- GB 9254 Class A
- CNS 13438 Class A.



WARNING This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

Additional Requirements for 220V - 240V Units

The ATM complies with the following requirements for conducted emissions:

- EN 61000-3-2: Mains harmonics, Class A
- EN 61000-3-3: Mains flicker.

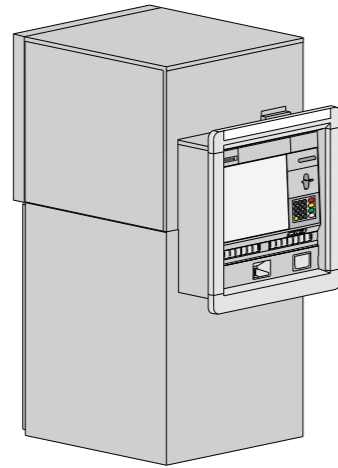
ACCESSIBILITY

It is the responsibility of the owning institution to ensure that the heights from the floor level to the fascia items comply with any local regulations.

Note: The heights listed in this document assume that the installation does not add depth in front of the ATM. Increased depth may change the height requirements due to increasing the user's reach, therefore please refer to the relevant accessibility regulation if additional depth has been added.

GENERAL DESCRIPTION

The NCR SelfServ 84 Drive-Up Automated Teller Machine is a 'through the wall' ATM which can also be deployed as a walk-up ATM.



Options

Standard Security Enclosures

- CEN Grade I
- CEN Grade III
- CEN Grade IV

Solid and Gas Explosion Resistant (EX GAS) Security Enclosures

- CEN Grade III
- CEN Grade IV

Sleeve

- Short Sleeve
- Long Sleeve

Collars

- Standard
- Advert

ACOUSTICS

For most variants the acoustics sound power does not exceed:

- 65 dB(A) when idle
- 68 dB(A) when operating.

However, the following configurations will affect the sound levels as shown in the table below:

Configuration	Acoustic sound power when operating
Coin and passbook	does not exceed 72 dB(A)
Cooling fans	does not exceed 75 dB(A)

HEAT DISSIPATION

The NCR SelfServ product range is a flexible hardware platform. NCR recommends that actual power measurements are taken and used to establish the heat dissipation for specific hardware configurations. These measurements should include any custom or third party features.

Where specific measurements are not available then, as a guide, **760 KJ/hour** can be used as an indicative heating load. This figure is based on an ATM in idle mode, with a medium to high feature functionality configuration.

Heat dissipation figures are largely unaffected by transactional rates.

PRODUCT IDENTIFICATION

The illustration below is typical of the layout of the product identification label which is fixed inside the ATM.



The product is identified by a class and a 4 digit model number. 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.

Electrical rating information is also shown on the product label.

POSITIONING THE ATM

The ATM may be installed through any suitable exterior wall.

Position the ATM where bright sunlight will not fall directly on the display.

The ATM must also be positioned away from heat sources or any air conditioning equipment.

Allow sufficient room for installation and servicing requirements.



CAUTION The ATM is designed to withstand exposure to rainfall. However do not locate it where it may be exposed to water spray, for example, from vehicles driving through puddles.

FLOOR

The ATM *must* be installed on a level, even, concrete or other noncombustible surface. In locations where the floor may be uneven, it is recommended that a steel plate is used under the ATM.

An antistatic floor covering should be used and must be of a type that will not generate dust or fluff.

The ATM must be installed on a floor capable of supporting the maximum weight including media. Only the maximum weight should be considered as additional options may be added after installation. Floor loading is calculated by dividing the maximum weight of the ATM by the surface area of the ATM base in contact with the floor.

Service areas, ATM weights and floor loading for your ATM can be found in the Variant Details section.

DOORWAYS AND CORRIDORS

Make sure 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 and remove it from the pallet in an area with sufficient access then move it to the installation site.

Make sure that any corridors can support the weight of the ATM, including all packaging and the pallet.

WALL

A **25 mm (1.0 in.)** wide smooth surface is required around the edge of the wall opening to enable a good weather seal.

Wall Cavity

Any cavity in the wall must be sealed to provide a flush surface that does not extend into the wall opening. Leave the gap between the ATM sleeve and the wall opening clear to allow air at room temperature to circulate.

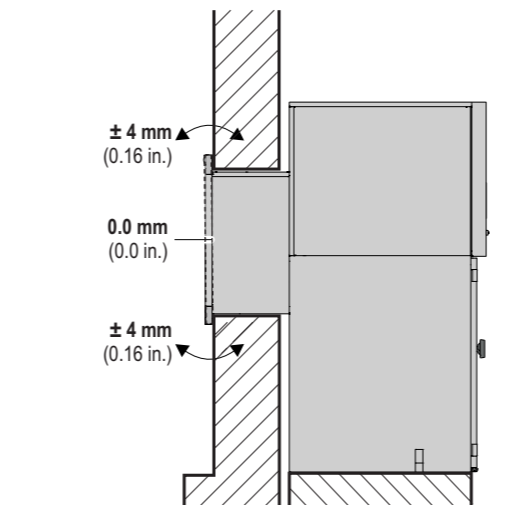
Installing Through a Glass Wall

If you are installing your ATM through a glass wall you may require a suitable glass support (normally a steel collar) to sit between the ATM collar and the glass. The requirement for this support should be determined by the architect. If required, any such support should be sourced locally.

Collar Tolerance

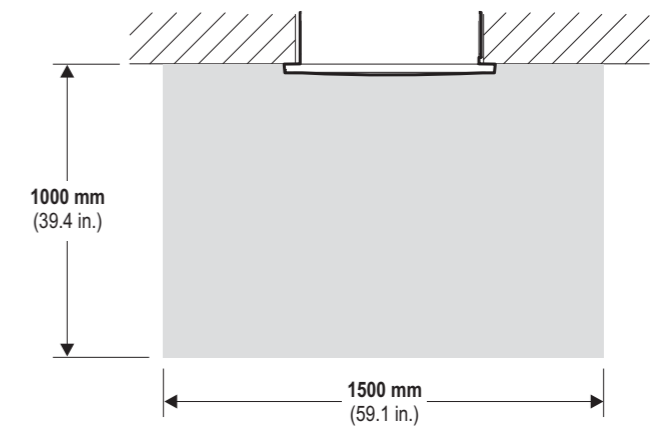
The collar has a tolerance of **±4 mm (0.2 in. (±0.5°))** at the top and bottom, with **0 mm (0.0 in. (0°))** at its centre.

The collar cannot accommodate large dips or depressions in the wall. Make sure the wall is smooth and even.



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.



TASK LIGHTING

A minimum of **200 LUX** is required for task lighting.

TEMPERATURE AND HUMIDITY

Continuous operating at or near the range limits, or in a location where the temperature and humidity change beyond the specification, should be avoided.

*If installing through an exterior wall, the site must meet the requirements of **both** the Interior and Exterior environments.*

Note: For exterior through the wall ATMs the humidity inside the building is restricted to a maximum of **30%** at an outside temperature of **-35°C** (-31°F), with a linear relationship between temperature and humidity to a maximum humidity at **0°C** (32°F).

Normal Operating Range (Interior Environment)

- Temperature: **0°C to 40°C** (32°F to 104°F)
- Relative Humidity: **20% to 80%**
- Dew Point Temperature Restriction: **26°C** (79°F) maximum

Normal Operating Range (Exterior Environment)

- Temperature: **-35°C to 50°C** (-31°F to 122°F)
- Relative Humidity: **10% to 100%**
- Dew Point Temperature Restriction: **26°C** (79°F) maximum

Storage Range (Up To Three Months)

- Temperature: **-10°C to 50°C** (14°F to 122°F)
- Relative Humidity: **10% to 90%**

Transit Range (Up To One Week)

- Temperature: **-40°C to 60°C** (-40°F to 140°F)
- Relative Humidity: **5% to 95%**

Extreme Power On Range (Up To One Hour)

- Temperature: **0°C to 45°C** (32°F to 113°F)
- Relative Humidity: **10% to 95%**

BAROMETRIC PRESSURE

- Operating/Transit Limits: **105 kPa** (15.2 lbf/in².) to **70 kPa** (10.2 lbf/in².)
- Equivalent Altitude: Up to a maximum of **3000 m** (9842.52 ft)

AC POWER REQUIREMENTS

The maximum current requirements are:

- 10A at 120V
- 6.3A at 230V.

The maximum inrush current is 100A.

NCR does not recommend running an ATM with deposit devices without an Uninterruptible Power Supply (UPS). Without a UPS, there is the potential for customer's cash to be retained in the device if there is a power failure.

INPUT VOLTAGE SETTING

The ATM can operate from the following input mains voltages:

- 90V to 136V at 50/60Hz
- 180V to 264V at 50/60Hz.

GROUNDING

The ATM operates from a single phase, 3 wire supply: live, neutral and ground.

The ATM power requirements will normally permit it to operate within existing wiring configurations and from existing mains outlets provided that:

- the branch circuit of the distribution panel supplying the ATM is not also used to supply equipment with heavy inductive loads such as air conditioners or AC motors.
- other branch circuits on the same distribution panel do not supply such equipment.
- the installation meets or exceeds the regulatory and local guidelines with regard to electrical safety and all conductor sizing.

The normal and safe operation of this ATM is dependent on the above. Only qualified personnel that meet local certification standards should be permitted to ensure compliance.

Note that the building ground point can also affect data integrity. For additional information refer to [Data Line Transient Protection](#) in the [Cable Requirements](#) section.

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 on to 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 and data (communication) line transient suppressors. Such protective devices are intended to guard against power and data 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 NCR Corporation Maintenance Agreement. NCR accepts no liability for any such occurrence nor 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 ANSI/IEEE Standard C62.41, Guide on Surge Voltages in Low-Voltage AC Power Circuits.
- 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.
- Exhibit a 'short circuit' mode upon its failure, thus providing 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 (e.g. UL, CSA, VDE, ETL, etc.) and the installation must conform to local, state, and national electrical codes and regulations.

Location Category	Comparable to IEC No 664 Category	Transient	
		Waveform	Amplitudes
B = Major feeders, short branch circuits, and load centres	III	Volts = 1.2 x 50 μs Current = 8 x 20 μs and 0.5 μ Rise - 100 kHz Ringwave	6kV 3kA 6kV 500A
C = Service Entrance and run to load centre	IV	Volts = 1.2 x 50 μs Current = 8 x 20 μs	10kV or more 10kA or more

CABLE PREPARATION

NCR supply a power cable for the ATM. Other external cables are not supplied. Specifications for these cables are given in this section.

It is the customer's responsibility to have any required external cables installed and to make sure that all cable preparations comply with NCR specifications as well as with all national, state or local telephone and telegraph regulations and laws.

When producing cables allow for **2.2 m (7.22 ft)** of cable within the ATM.

DATA LINE TRANSIENT PROTECTION

Voltage transients, line noise, surges, sags, impulses, and spikes may be experienced routinely or sporadically. When such phenomena occur the use of protective devices may be required to ensure proper operation of the 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 self-recovering voltage limiting type. Exhibit a 'short circuit' mode upon its failure to ensure a positive indication of its failure. Insert minimum inductive and capacity loading at the operating frequency. Be installed in accordance with all applicable local, state, and national electrical codes and regulations.

Protect the data port from damage in the presence of a data line transient event as defined in IEC Standard 1000-4-5 (formerly IEC 801-5).

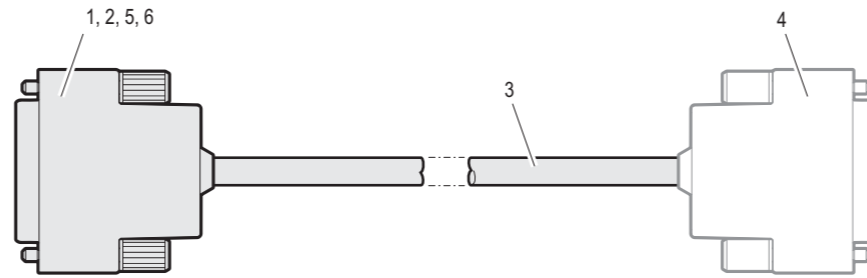
ALARM INTERFACE CABLES

The ATM may optionally be configured to provide an alarm interface which enables the ATM to be connected to an external local alarm system. The interface may take the form of one of two options; a basic alarm system or an enhanced alarm system.

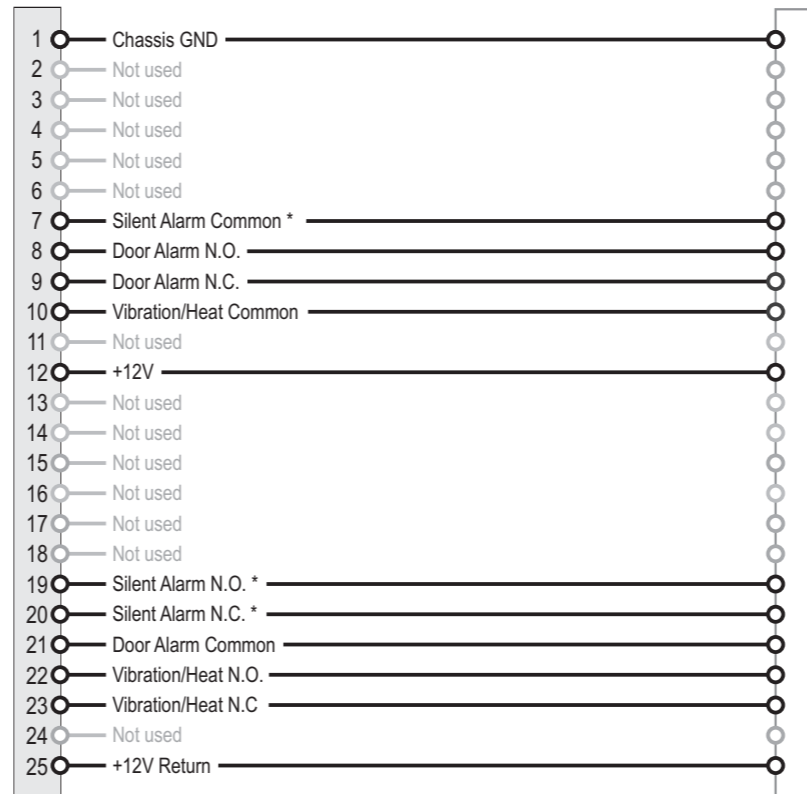
A stabilised, non-interruptible power supply must be provided through the external alarm system. The alarm interface cable wiring must conform to the following specification:

- 12V ± 2V dc
- 200mA maximum
- Ripple, 5% maximum.

Basic Alarm Cable



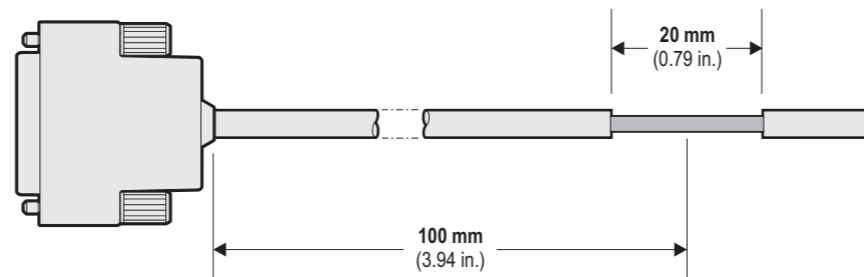
1. Connector, 25 Way (NCR part no. 006-0005896)
2. Terminal, wire, female (NCR part no. 009-0002640)
3. Cable, multiconductor (determined by the alarm installed).
4. Connector (determined by remote device).
5. Shell Hood (NCR part no. 006-1500038).
6. Screw retainer (NCR part no. 601-0101584).



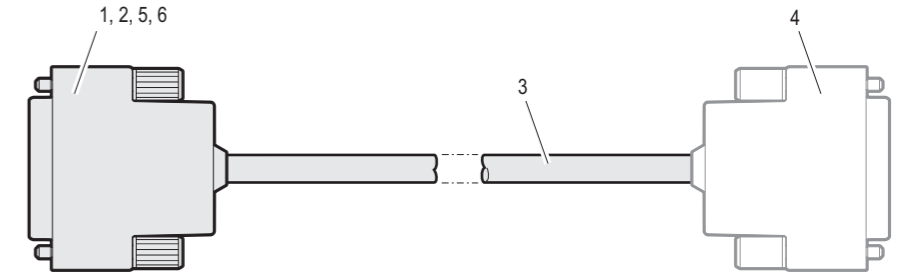
* Optional

Remove a **20 mm (0.79 in.)** section of the outer sleeve, **100 mm (3.94 in.)** from the ATM end of the cable.

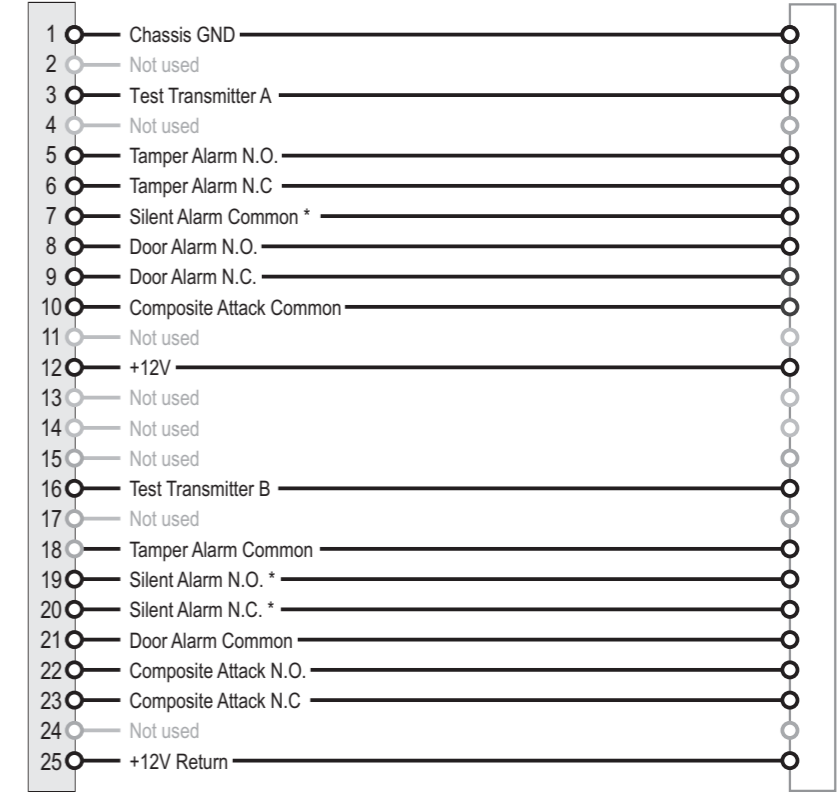
Take care not to cut through the cable shielding.



Enhanced Alarm Cable



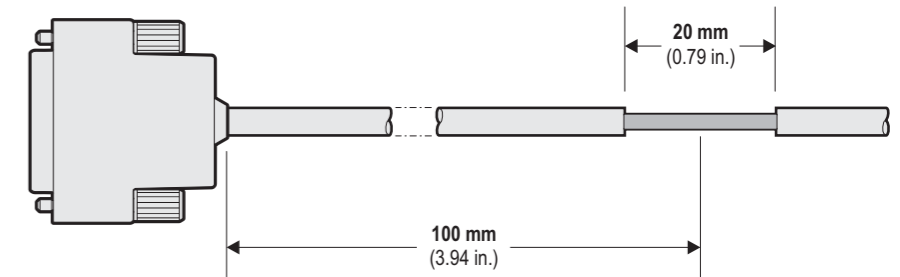
1. Connector, 25 Way (NCR part no. 006-0005896)
2. Terminal, wire, female (NCR part no. 009-0002640)
3. Cable, multiconductor (determined by the alarm installed).
4. Connector (determined by remote device).
5. Shell Hood (NCR part no. 006-1500038).
6. Screw retainer (NCR part no. 601-0101584).



* Optional

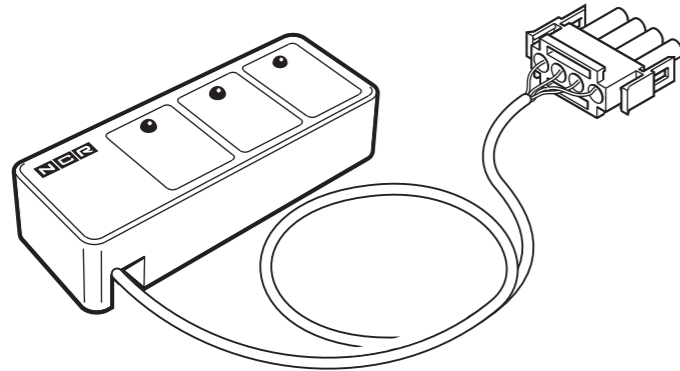
Remove a **20 mm (0.79 in.)** section of the outer sleeve, **100 mm (3.94 in.)** from the ATM end of the cable.

Take care not to cut through the cable shielding.



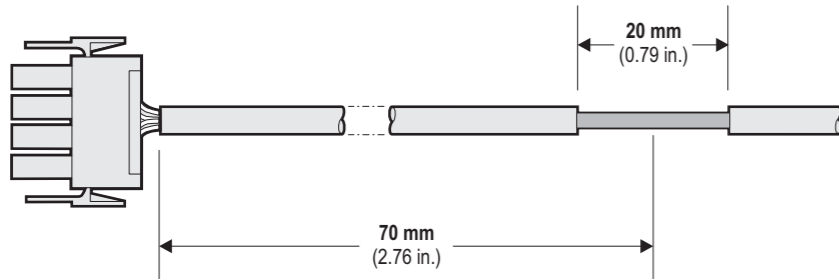
REMOTE STATUS MONITOR

The remote status monitor feature is supplied as a complete assembly consisting of a status indicator unit, **76.2 m** (250 ft) of cable and a connector.



Remove a **20 mm** (0.79 in.) section of the outer sleeve, **70 mm** (2.76 in.) from the ATM end of the cable.

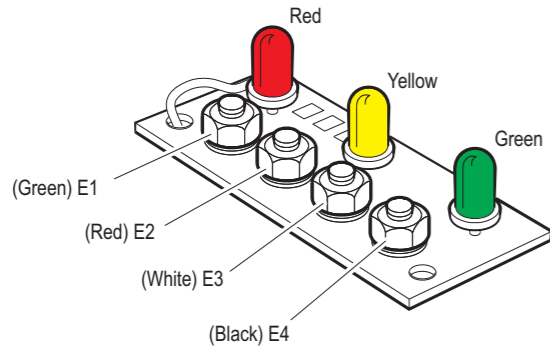
Take care not to cut through the cable shielding.



Shortening the Cable

If you need to shorten the cable, proceed as follows:

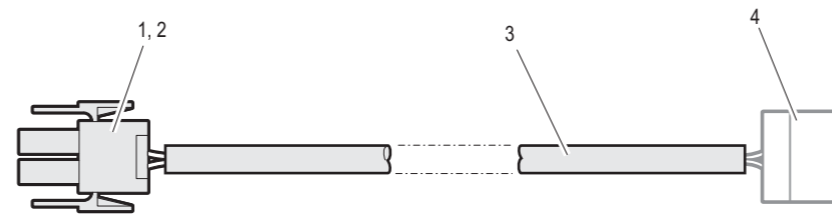
1. Remove the cover from the remote status indicator unit
2. Disconnect the four leads (E1, E2, E3 and E4) from the indicator



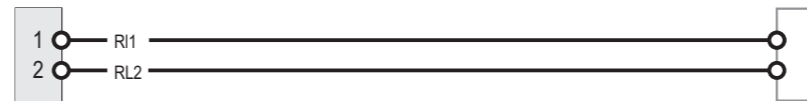
3. Cut the cable to the required length and strip the four wire ends
4. Connect the wires to the correct terminals
5. Replace the status indicator cover.

REMOTE RELAY CABLE

The remote relay provides a pair of open contacts, rated at 28 volts per ampere for both ac and dc supplies, which can be closed to activate a remote device. The interconnecting cable to a remote device must conform to the following specification and wiring:

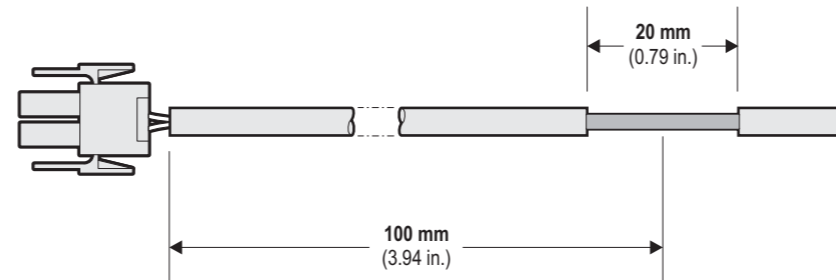


1. Connector, 2 way Mate-N-Lock (NCR part no. 007-9814285).
2. Terminal wire, male (NCR part no. 007-2009663).
3. Cable, multiconductor (NCR part no. 006-5800006).
4. Connector (determined by remote device).



Remove a **20 mm** (0.79 in.) section of the outer sleeve, **100 mm** (3.94 in.) from the ATM end of the cable.

Take care not to cut through the cable shielding.

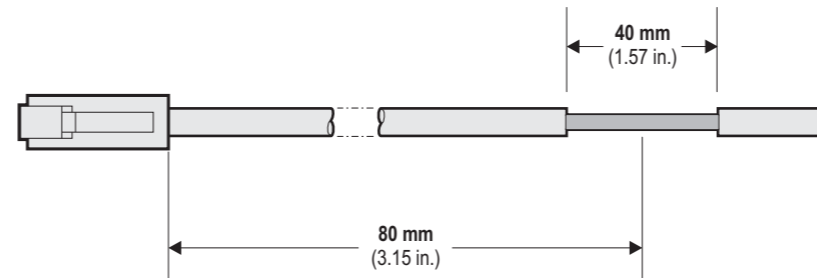


ETHERNET STANDARD CABLE

The ethernet standard cable must be fully shielded, 8 pin, Category 5 compliant and must not exceed **97 m** (318.20 ft) in length.

Remove a **40 mm** (1.57 in.) section of the outer sleeve, **80 mm** (3.15 in.) from the ATM end of the cable.

Take care not to cut through the cable shielding.



POWER CABLE

The ATM is supplied either as a 120V or a 220-240V unit.

120V ATMs are supplied with a power cable fitted with a NEMA type 5-15P power source connector.

220-240V ATMs are supplied with an unterminated power cable. Information about suitable power connectors is supplied with the accessories.

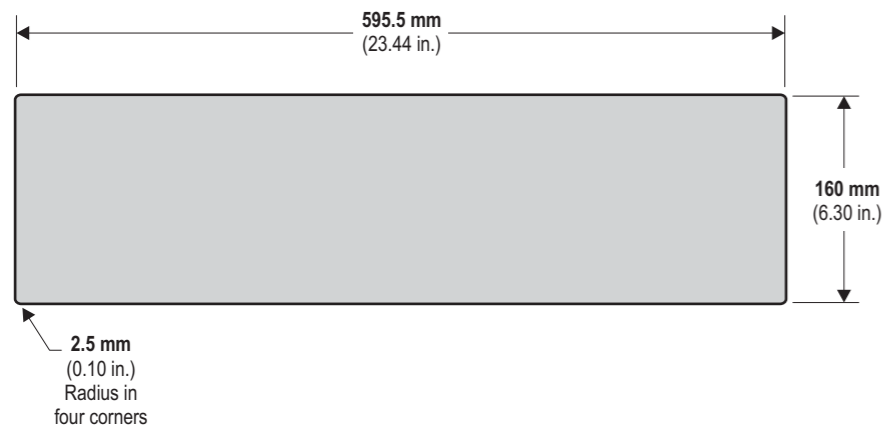
The power cable supplied is **3 m** (9.84 ft) in length. If it is necessary to increase this length to meet site requirements, then the extension must satisfy local or country regulations.

WARNING This equipment must be earthed.

ADVERT WINDOW

The decals should be a maximum of **0.75 mm** (0.0295 in.) thick.

Advert Window



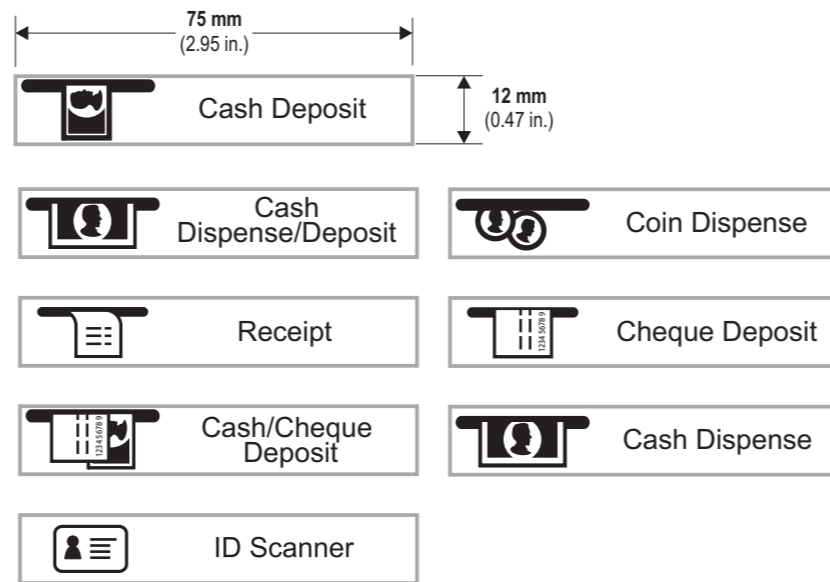
ENTRY/EXIT DECALS

Entry/Exit decals should be a maximum of **0.5 mm** (0.02 in.) thick. NCR recommends they be made from textured polycarbonate with 3M 467 High Performance MP adhesive.

Decals should provide good contrast, 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.

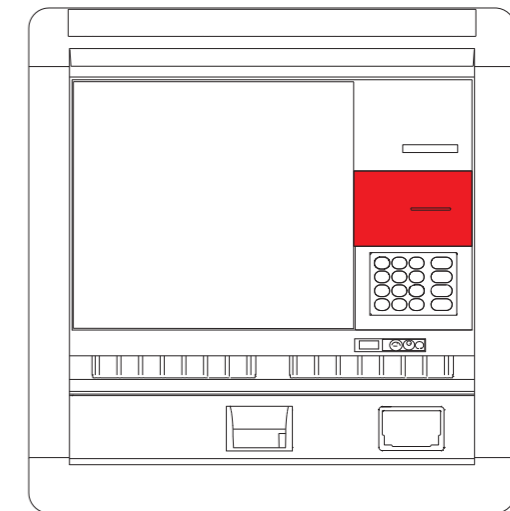
Suggested icon designs and wording are shown below:



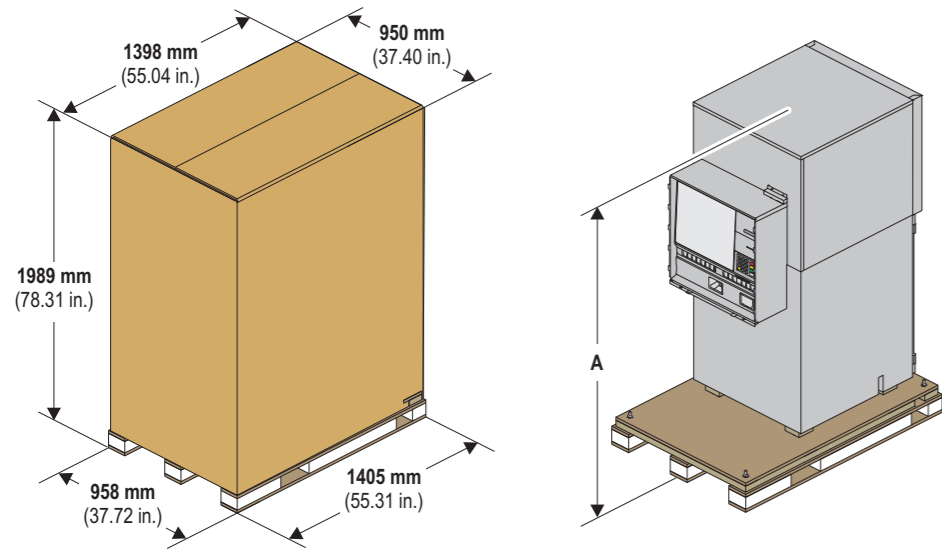
CAUTION When placing any card reader decal, make sure that the label does not obscure the contactless card reader or card entry slot lights.



CAUTION Do NOT place any metallic coated or substrate label on the glass area around the CCR or card reader, highlighted below:

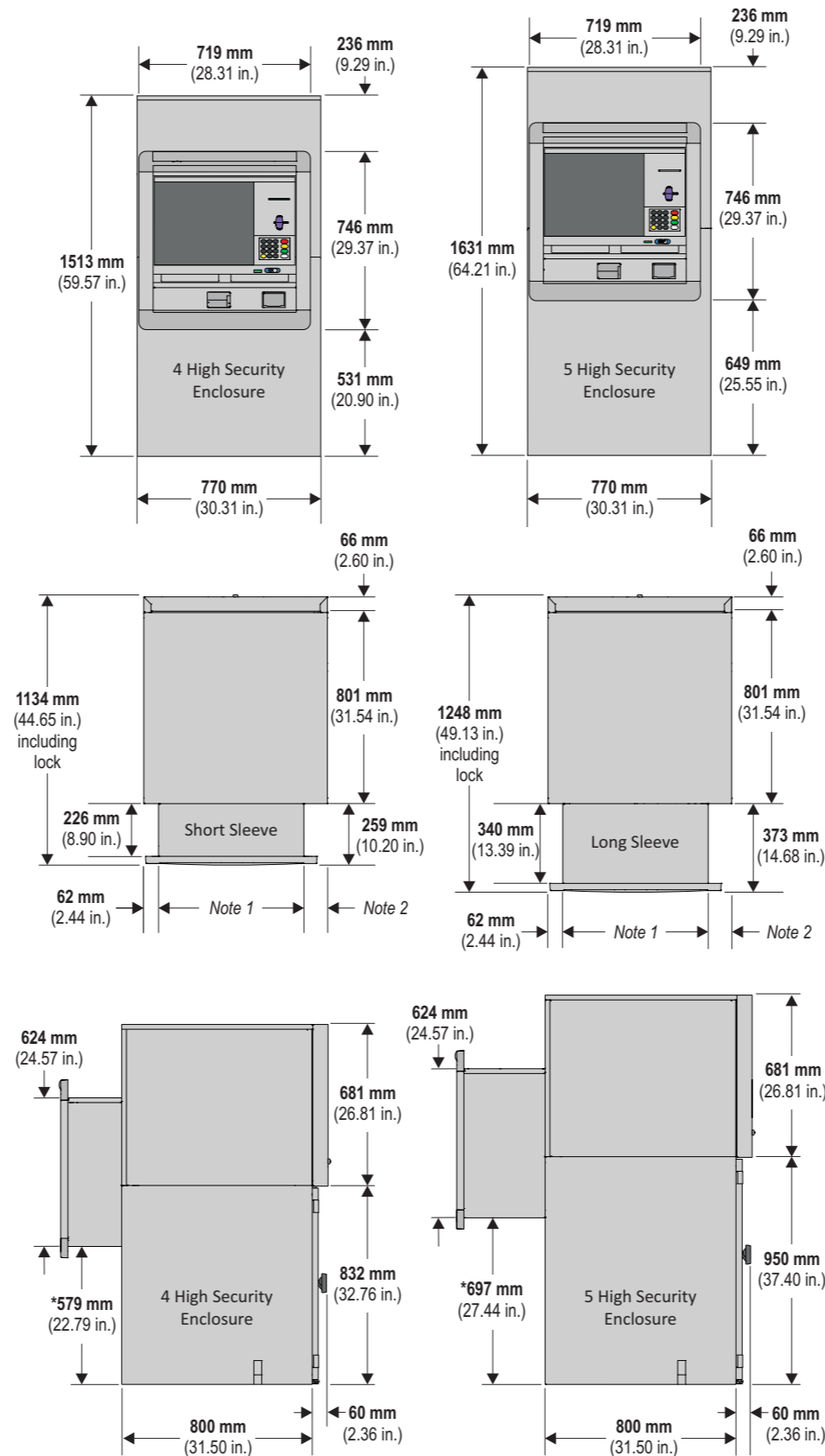


PACKAGE DIMENSIONS



A - 1847 mm (72.72 in.) with a 5 High Security Enclosure
1729 mm (68.07 in.) with a 4 High Security Enclosure

ATM DIMENSIONS



* Dimensions are the same for short or long sleeve options
 Note 1: 610 mm (24.02 in.) without cash camera
 617.3 mm (24.30 in.) including cash camera
 Note 2: 98 mm (3.86 in.) without cash camera option
 90.7 mm (3.57 in.) with cash camera option

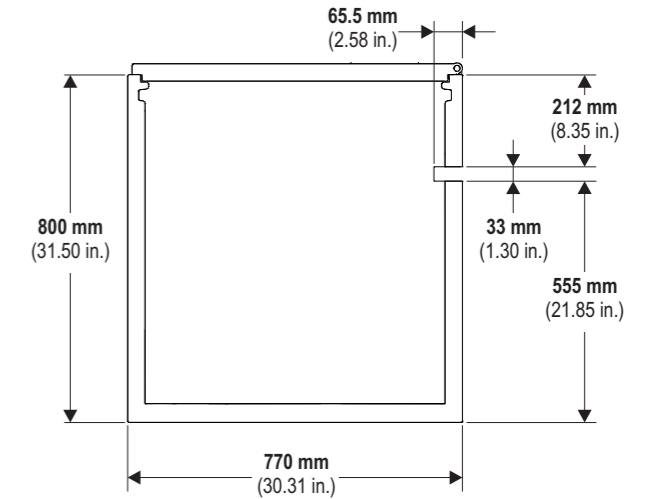
WEIGHT AND FLOOR LOADING

Note: The maximum weight covers the **maximum configuration possible** for the ATM. This will include all modules (coin dispenser, cash acceptor, statement printer, etc) fully loaded with media.

Standard Security Enclosures

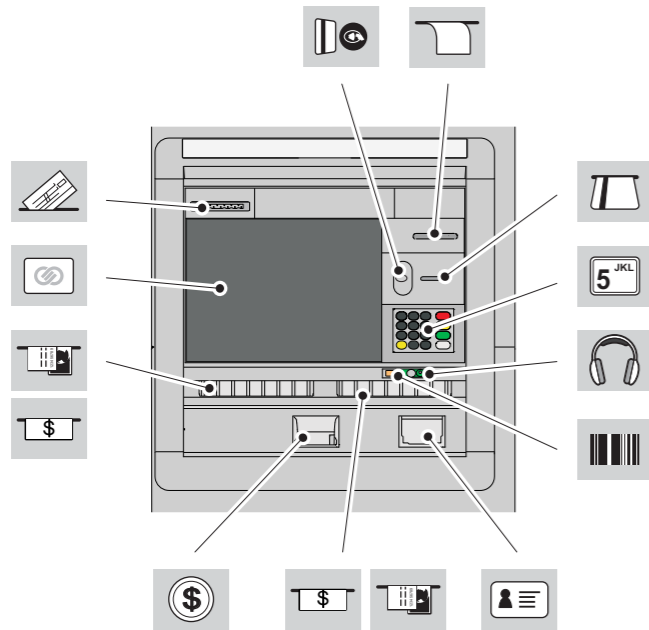
	CEN Grade I 4 High	CEN Grade I 5 High
Maximum weight	855 kg (1884.95 lb.)	900 kg (1984.16 lb.)
Floor loading	1388 kg/m ² (284.3 lb./ft ²)	1461 kg/m ² (299.2 lb./ft ²)

CABLE ENTRY

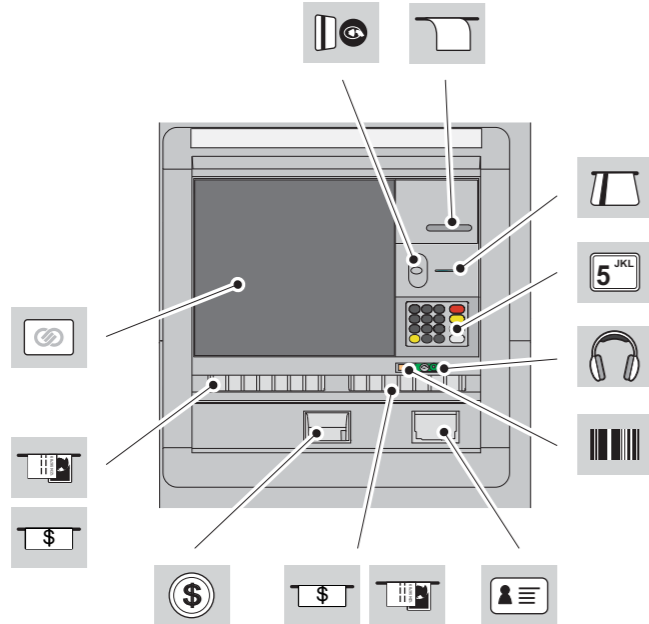


FACIA ITEMS

15" Touchscreen



19" Touchscreen



Touchscreen Dimensions

Touchscreen Size	Touchscreen Height x Width	Touchscreen Angle
15 inch	234 mm x 310 mm 9.21 in. x 12.20 in.	3 degrees from vertical
19 inch	305 mm x 380 mm 12.01 in. x 14.96 in.	3 degrees from vertical

Heights and Depths

Facia Item	Height from base of ATM (4-High Dispenser Safe)	Height from base of ATM (5-High Dispenser Safe)	Depth from front of shelf
Cheque Entry	1133 mm (44.61 in.)	1251 mm (49.25 in.)	71 mm (2.80 in.)
Touchscreen - Top 483 mm (19.0 in.)	1123 mm (44.21 in.)	1241 mm (48.86 in.)	71 mm (2.80 in.)
Touchscreen - Top 381 mm (15.0 in.)	1064 mm (41.89 in.)	1182 mm (46.54 in.)	68 mm (2.68 in.)
Receipt	1063 mm (41.85 in.)	1181 mm (46.50 in.)	62 mm (2.44 in.)
Card Reader	980 mm (38.58 in.)	1098 mm (43.23 in.)	63 mm (2.48 in.)
Contactless Card Reader (behind Facia)	980 mm (38.58 in.)	1098 mm (43.23 in.)	63 mm (2.48 in.)
PIN Pad - Number 5 Key	880 mm (34.65 in.)	998 mm (39.29 in.)	57 mm (2.24 in.)
Private Audio	780 mm (30.71 in.)	898 mm (35.35 in.)	59 mm (2.32 in.)
Barcode Reader - Activation Point	757 mm (29.80 in.)	875 mm (34.45 in.)	33 mm (1.30 in.)
Cash Exit/Entry	747 mm (29.41 in.)	865 mm (34.05 in.)	73 mm (2.87 in.)
Scalable Deposit Module	747 mm (29.41 in.)	865 mm (34.05 in.)	73 mm (2.87 in.)
ID Scanner	656 mm (25.83 in.)	774 mm (30.47 in.)	66 mm (2.60 in.)
Coin Exit	628 mm (24.72 in.)	746 mm (29.37 in.)	80 mm (3.15 in.)

Distance for Voice Guidance

Facia Item	No. 5 Key		Audio Jack		
	Distance to Facia Item		Distance to Facia Item		
Receipt	1	188 mm (7.40 in.)	1	284 mm (11.18 in.)	
Card Reader	1	110 mm (4.33 in.)	1	202 mm (7.95 in.)	
ID Scanner	6	225 mm (8.86 in.)	6	125 mm (4.92 in.)	
Private Audio	6	100 mm (3.94 in.)	-	-	
Barcode Reader - Activation Point	7	134 mm (5.28 in.)	8	73 mm (2.87 in.)	
Cash Exit/Entry	Right hand	7	140 mm (5.51 in.)	8	65 mm (2.56 in.)
Scalable Deposit Module	Right hand	7	140 mm (5.51 in.)	8	65 mm (2.56 in.)
Coin Exit		7	327 mm (12.87 in.)	8	269 mm (10.59 in.)
Scalable Deposit Module	Left hand	8	359 mm (14.13 in.)	9	349 mm (13.74 in.)
Cash Exit/Entry	Left hand	8	359 mm (14.13 in.)	9	349 mm (13.74 in.)
Touchscreen 381 mm (15.0 in.)	Centre	10	283 mm (11.14 in.)	10	333 mm (13.11 in.)
Touchscreen 483 mm (19.0 in.)	Centre	10	290 mm (11.42 in.)	10	346 mm (13.62 in.)
Cheque Entry		10	482 mm (18.98 in.)	10	551 mm (21.69 in.)
Contactless Card Reader (behind Facia)		11	104 mm (4.09 in.)	11	203 mm (7.99 in.)

SECURITY BOLTS

Bolts and anchors must be supplied by the owning organisation.

To meet security standards the ATM must be bolted to the floor, through all of the bolt holes, using bolts with anchor washers as specified below. Bolts and anchor washers are to be supplied by the owning organisation.

Make sure that the floor or plinth is capable of withstanding the loading imposed by the anchor points for these bolts.

If an adjustable plinth is used, it must be bolted to the floor to the same specification as the ATM.

The minimum specification for bolts and washers to secure the ATM to a concrete floor is:

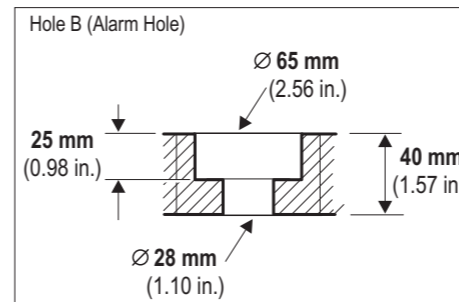
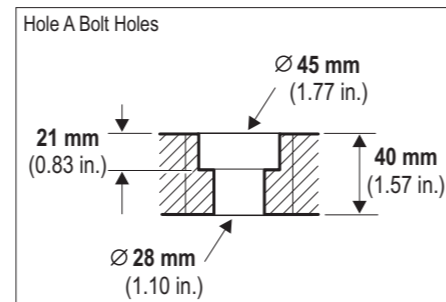
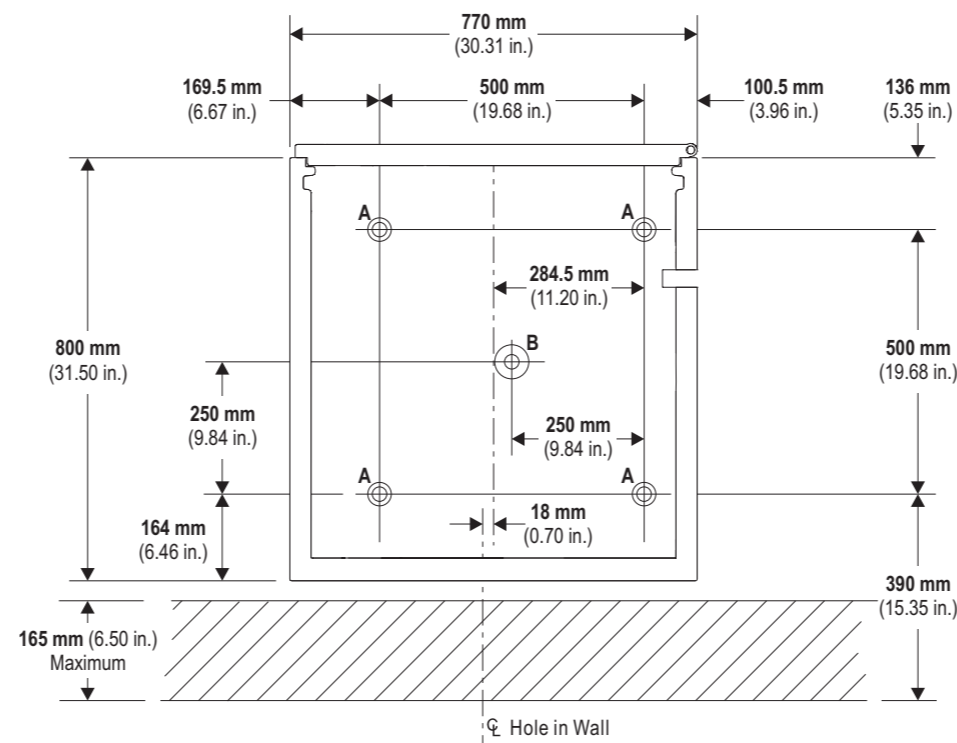
- Bolts
 - Type - either resin anchor or shield anchor bolts
 - Size - **M16** (5/8 in.)
 - Minimum Length - **150 mm** (5.9 in.)
 - Strength - high tensile (minimum ISO property class **8,8**).
- Washers
 - Type - flat, steel (as per DIN7349 or equivalent)
 - Size - **M16** (5/8 in.)
 - Outer diameter - no greater than **40 mm** (1.58 in.)
 - Minimum thickness - **6 mm** (0.2 in.).

BOLT HOLES

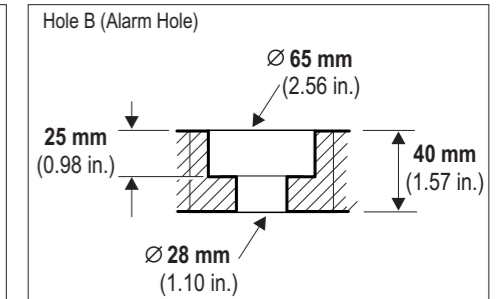
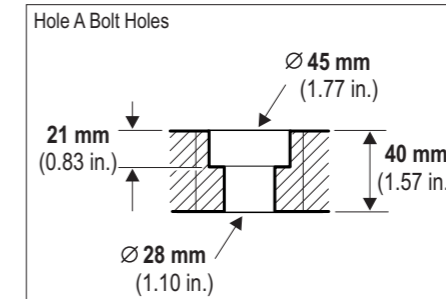
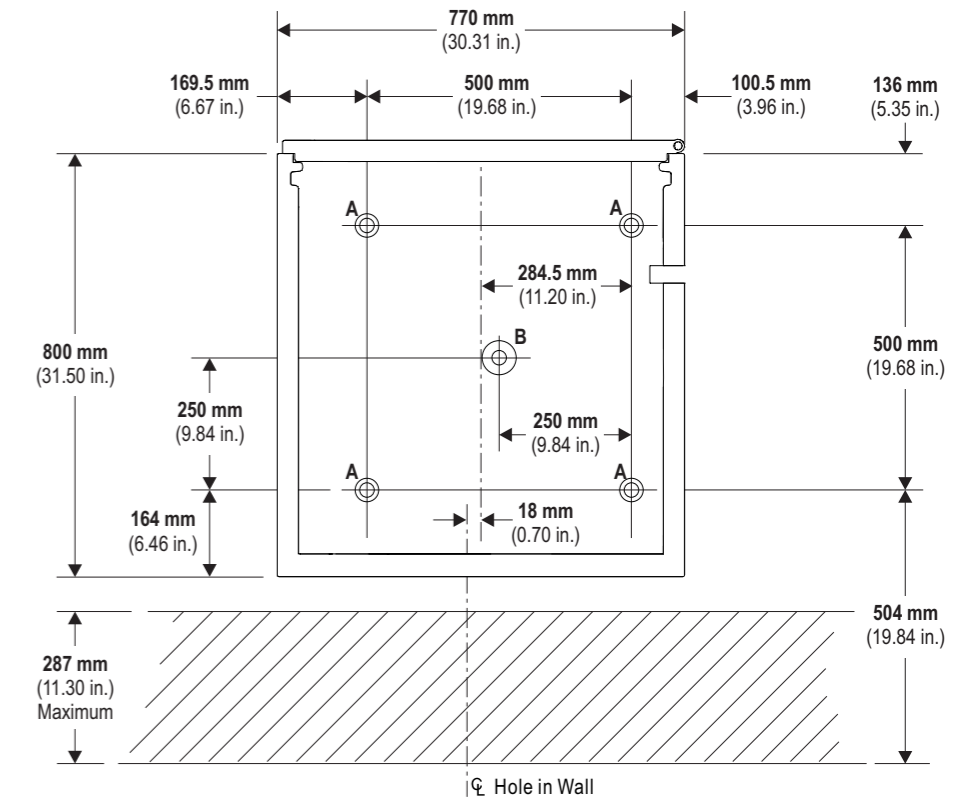
The ATM should be bolted to the floor or plinth, through all the holes marked 'A', using four bolts with anchor washers.

The hole marked 'B' enables an alarm to be fitted.

Standard Collar - Short Sleeve



Standard Collar - Long Sleeve

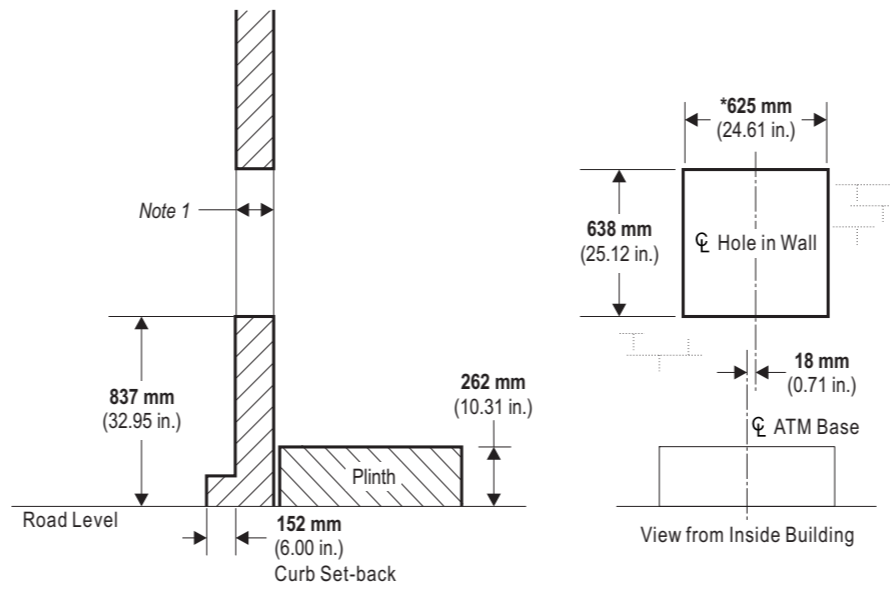


HOLE IN THE WALL

It is the responsibility of the owning institution to ensure that the heights from the sidewalk level to the fascia items comply with any local regulations.

For correct installation height you must consider the difference in height between the sidewalk and the interior floor. If there is no difference then the plinth must have the height specified in the illustrations below.

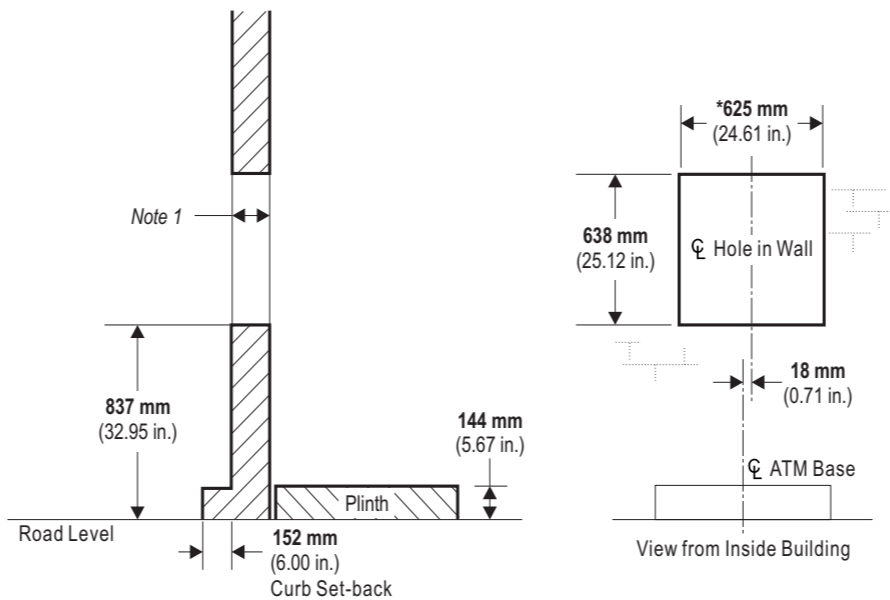
Standard Collar - 4 High Security Enclosure



*increase to 635 mm (25.00 in.) if ATM installed with cash camera

Note 1 : Short Sleeve - maximum 165 mm (6.50 in.)
Long Sleeve - maximum 287 mm (11.30 in.)

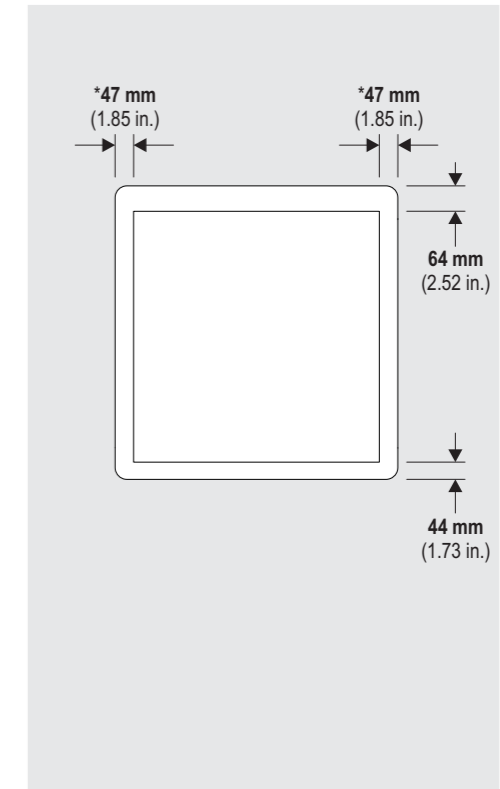
Standard Collar - 5 High Security Enclosure



*increase to 635 mm (25.00 in.) if ATM installed with cash camera

Note 1 : Short Sleeve - maximum 165 mm (6.50 in.)
Long Sleeve - maximum 287 mm (11.30 in.)

Hole in the Wall Overlap - Standard Collar

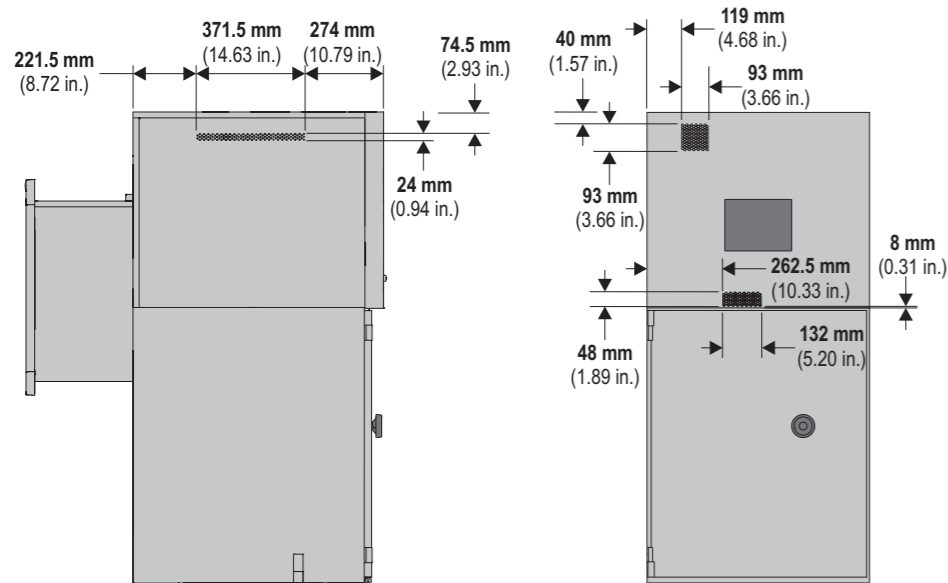


*decreased to 42 mm (1.65 in.) if ATM installed with cash camera

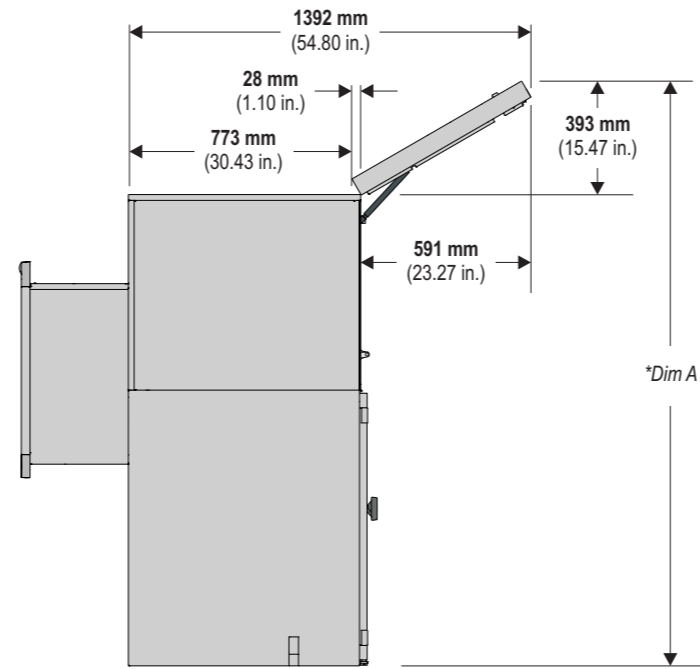
VENTS LOCATION - AIR FLOW

Unrestricted air flow is required on both the left and right hand side and at the rear of the ATM. There must be no obstruction of the vents at any time.

If a third-party surround/topper is fitted then equivalent venting, or a hot air extraction system must be installed within the surround/topper.



CLEARANCES - TOPBOX DOOR

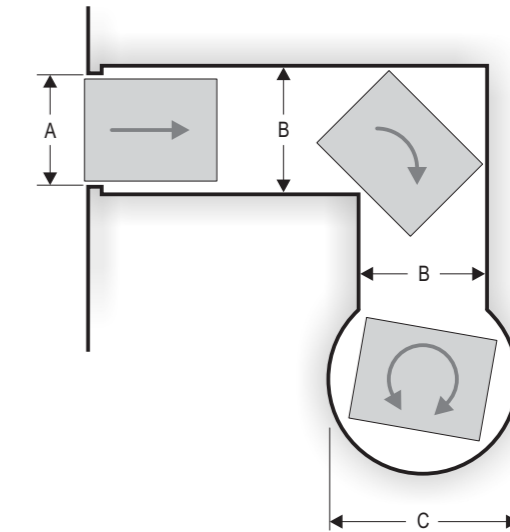


*Dim A 1903 mm (74.92 in.) - 4 High security enclosure
2021 mm (79.57 in.) - 5 High security enclosure

CLEARANCES - CORRIDOR

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

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



		Packaged ATM (pallet and carton)	Unpackaged ATM
A	Doorway or straight corridor	970 mm (38.19 in.)	782 mm (30.79 in.)
B	Corridor with corner	1186 mm (46.69 in.)	998 mm (39.29 in.)
C	Rotation about centre	1713 mm (67.44 in.)	1478 mm (58.19 in.)

SERVICING AREAS - OPTIMUM - SINGLE ATM

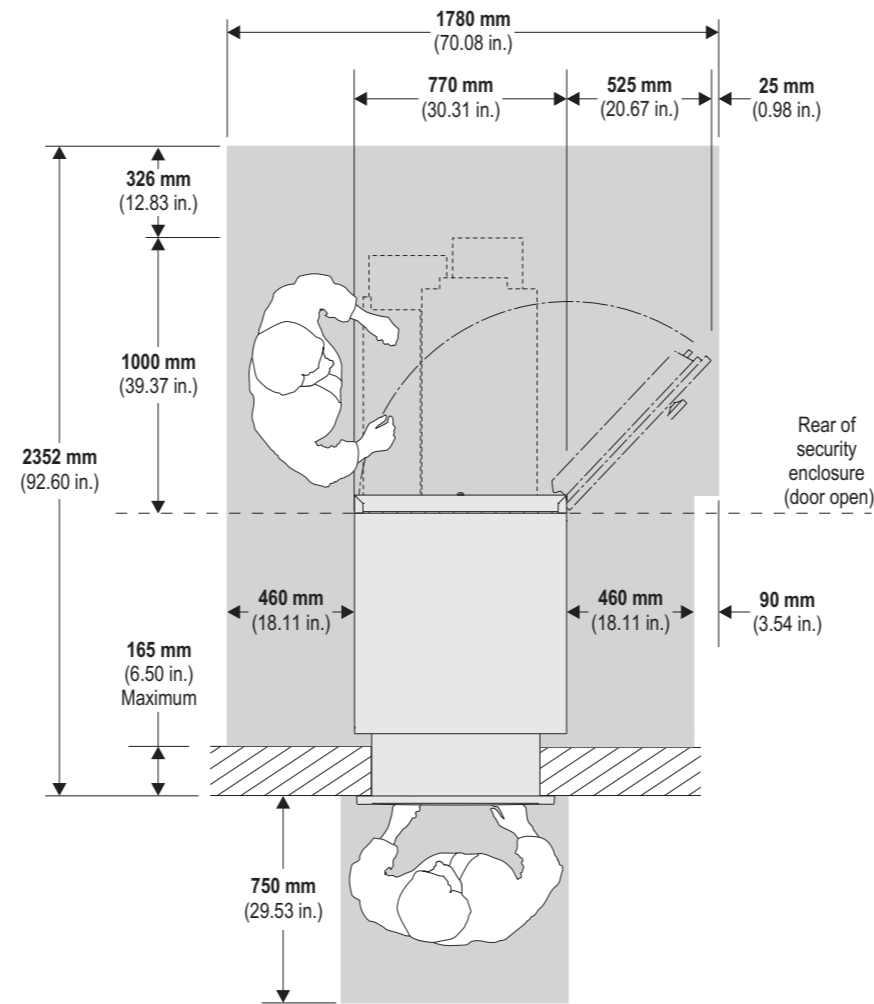
The optimum servicing area provides the best access to the ATM for all servicing and operation tasks.

Wherever possible the ATM should be installed within the optimum servicing area.

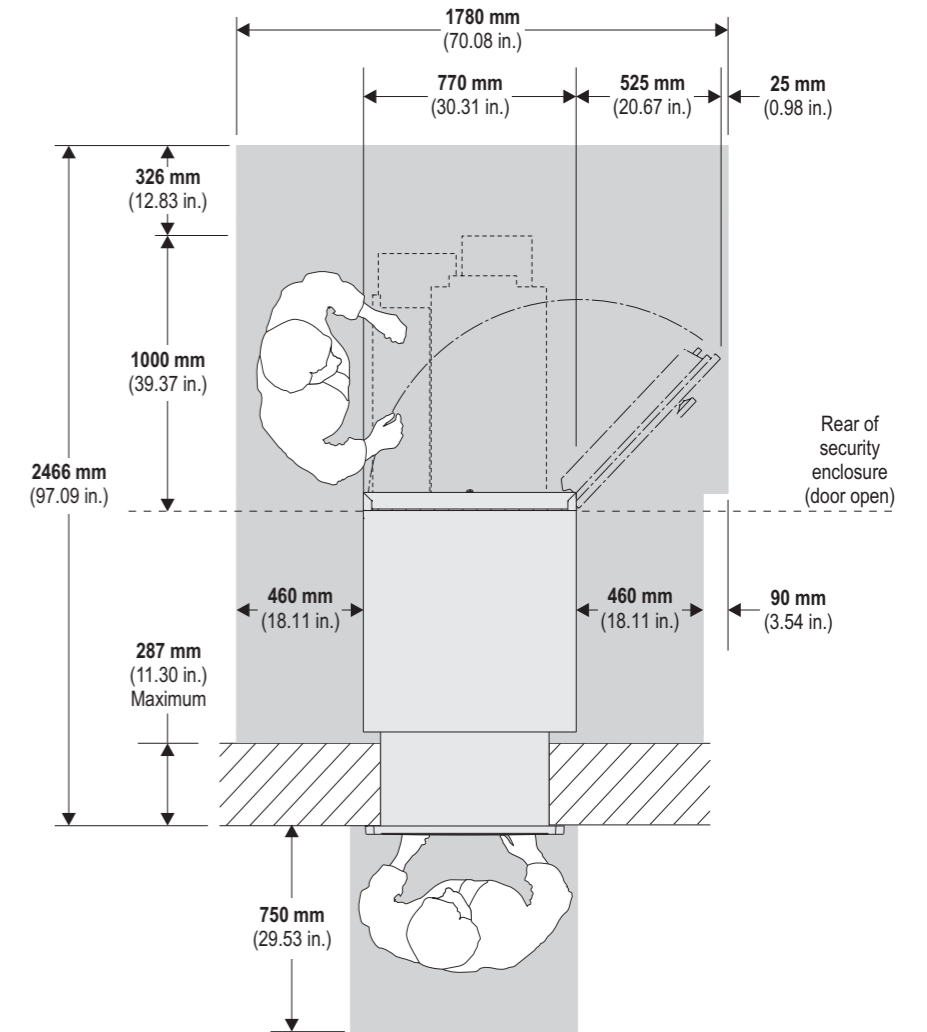
If the optimum area is not available then refer to Servicing Areas - Minimum. However note that installing the ATM in the minimum servicing area may increase the servicing and/or upgrading time over a ATM installed using the optimum area.

Always leave as much space as possible around the ATM to facilitate safe operation and servicing.

Standard Collar - Short Sleeve



Standard Collar - Long Sleeve



SERVICING AREAS - MINIMUM - SINGLE ATM

This is the **minimum** area required for operating and servicing the ATM.

Wherever possible the ATM should be installed within the optimum servicing area. Installing the ATM in the minimum servicing area may increase the servicing and/or upgrading time.

If the minimum area is not available then consult your local service representative. Every site is different and you may still be able to install the ATM but with further increases to servicing and/or upgrading time.

If you install in the minimum area then note that doors can open, and devices rack out, beyond the area shown. Always leave as much space as possible around the ATM to facilitate safe operation and servicing.

Standard Collar - Short Sleeve

Minimum clearance area is composed of:

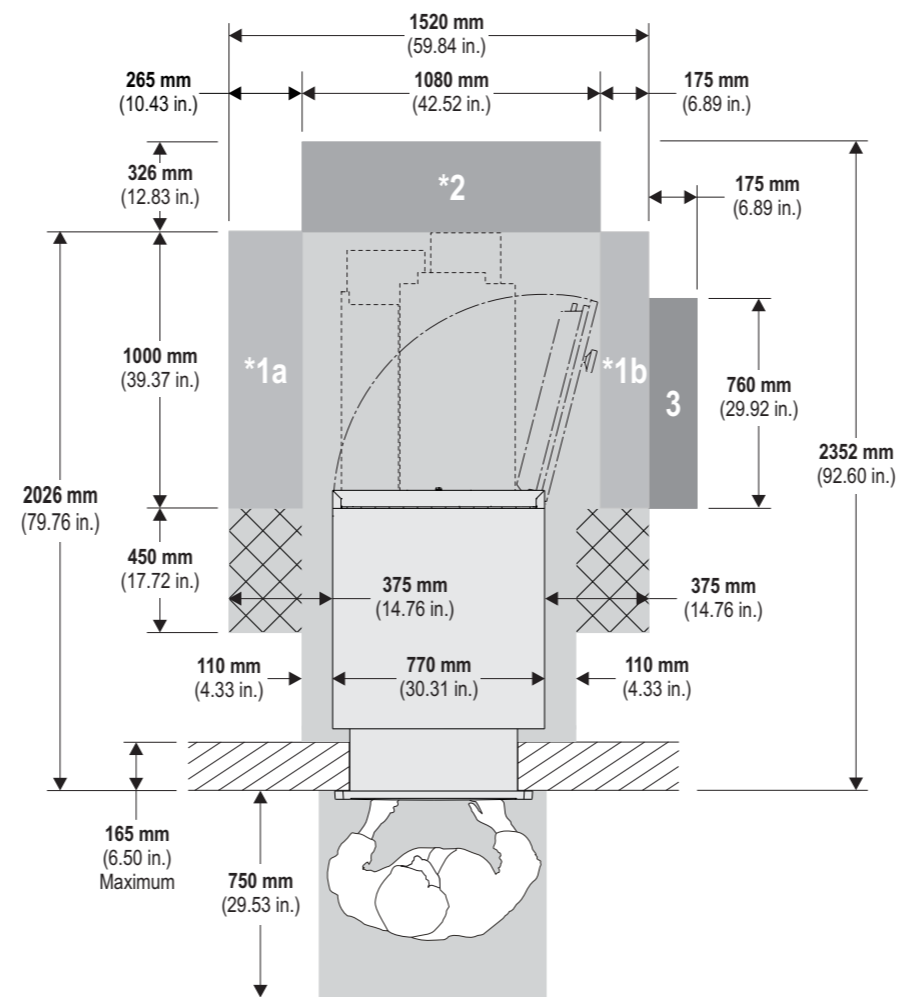
- Basic clearance
- Mandatory left OR right

If configured with SDM, SCPM, BNA or GBNA/RU on left hand side - **1a** Mandatory and either **1b** OR **2**

If configured with SDM, SCPM, BNA or GBNA/RU on right hand side - **1b** Mandatory and either **1a** OR **2**

All other configurations - **1a** and **1b** OR **2**

3 If the UPS is located in the safe enclosure



* denotes small (<10% volume) infringements permitted in these areas

Standard Collar - Long Sleeve

Minimum clearance area is composed of:

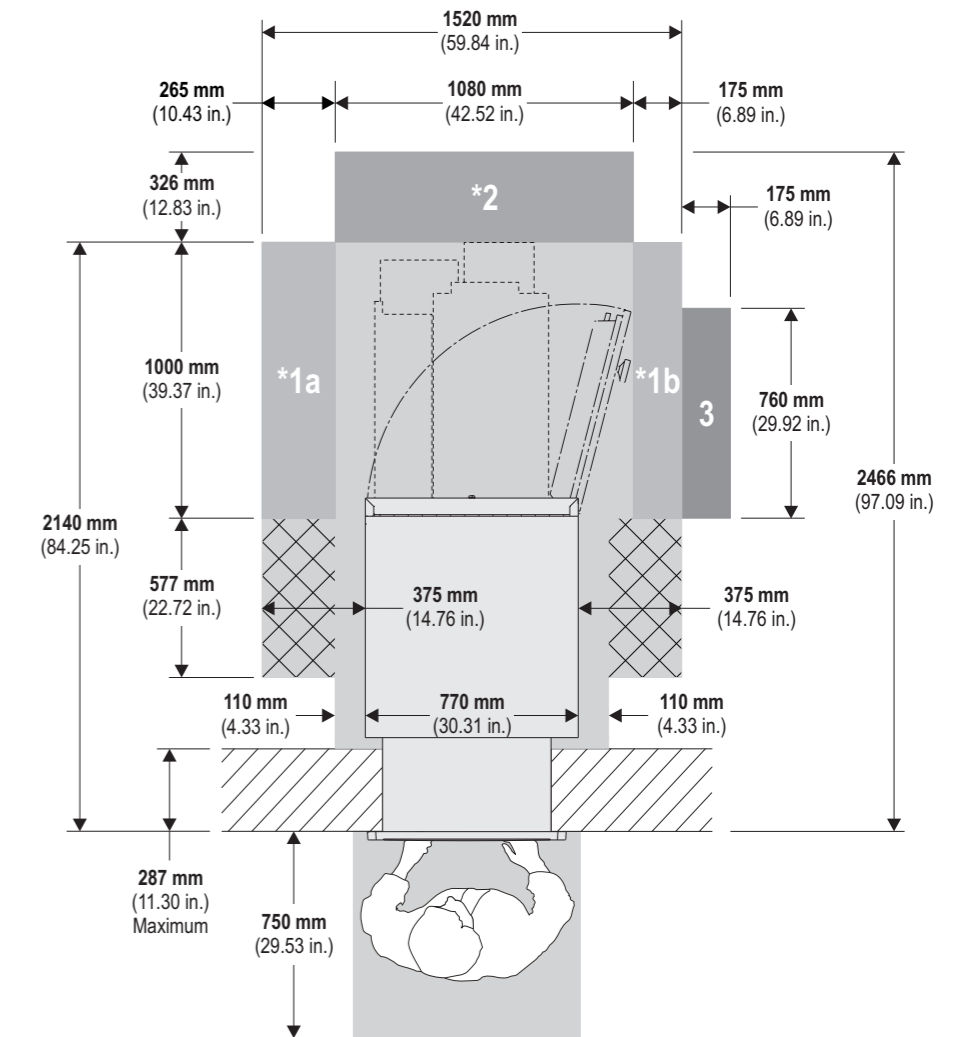
- Basic clearance
- Mandatory left OR right

If configured with SDM, SCPM, BNA or GBNA/RU on left hand side - **1a** Mandatory and either **1b** OR **2**

If configured with SDM, SCPM, BNA or GBNA/RU on right hand side - **1b** Mandatory and either **1a** OR **2**

All other configurations - **1a** and **1b** OR **2**

3 If the UPS is located in the safe enclosure



* denotes small (<10% volume) infringements permitted in these areas