Arca2600

Teller-Assist Currency Dispenser

Site Preparation & Installation Guide

arcaltech systems

Document History		
Document Number	**Date**	**Remarks**
700-305-3170	April 1, 2003	Initial Draft
700-305-3070/3170	July 15, 2003	Rev 1.01 Combined Site Prep and Installation Guides into a single document
700-305-3170	April 25, 2005	Rev. 1.20 Updated to reflect production of new safe enclosure

Contents

Purpose of This Manual

This manual is intended for service personnel who are required to prepare the site and install an Arca2600 Teller-Assist Currency Dispenser.

IMPORTANT: The documentation for the Arca2600 dispener model also services the Arca2500 Teller-Assist Dispenser.

This manual focuses on two procedures:

- Pre-installation Site Preparation for the Arca2600
- Installation of the Arca2600

Related Documents

For more detailed information on the Arca2600, you may consult the following documents that are available in addition to this Site Preparation & Installation Manual:

- Arca2600 User Guide (Document No. 700-305-2526)
- Compass Setup Guide (Document No. 700-305-1053)
- Dispenser Software User Guide (varies depending on software interface).

To order any of this related documentation, contact ArcaTech Systems.

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Tools and Materials Required

- Equipment for moving very heavy objects (safe)
- Phillips-head screwdriver, Metric True#2
- Wire cutters
- Long-Handled Socket Wrench
- Rotary Drill & Anchor Bolts (if floor anchors are to be used)
- See Site Preparation Survey for specific non-standard requirements

1 Introduction

Arca2500 Users

The Arca2600 and Arca2500 models are almost identical, therefore this Arca2600 Guide also services the Arca2500 dispenser model with differences noted as appropriate. The Arca2500 model has five currency cassettes and the Arca2600 has six currency cassettes. Other than a few slight differences (e.g. number of cassettes, dispenser control board, etc.), these models are virtually identical.

Overview

The Arca2600 Teller Assist Currency Dispenser has been designed for ease of use by one, two or three operators. Paper currency (notes) are delivered as a bundle through an exit shutter called the note delivery area. When notes are delivered to the note delivery area, the green operator light corresponding to the terminal (operator) that dispensed the currency will light up. Subsequent dispenses will not be allowed as long as notes remain in the note delivery area. Once the currency is removed by the operator, the Arca2600 becomes free for the next operation.

The Arca2600 is available in two note delivery configurations: a Front Access model with the note delivery area and operator lights on the front of unit and a Rear Access model that features the note delivery area and operator lights on the rear of the unit.

The Arca2600 features an appearance door with a keyed lock. The appearance door is an added asthetic and safety feature making the unit appear less like a safe. The appearance door opens to reveal the safe door with a lock and handle for accessing the safe unit.

Figure 1-1 shows the key components of a Front Access Arca2600 Dispenser.

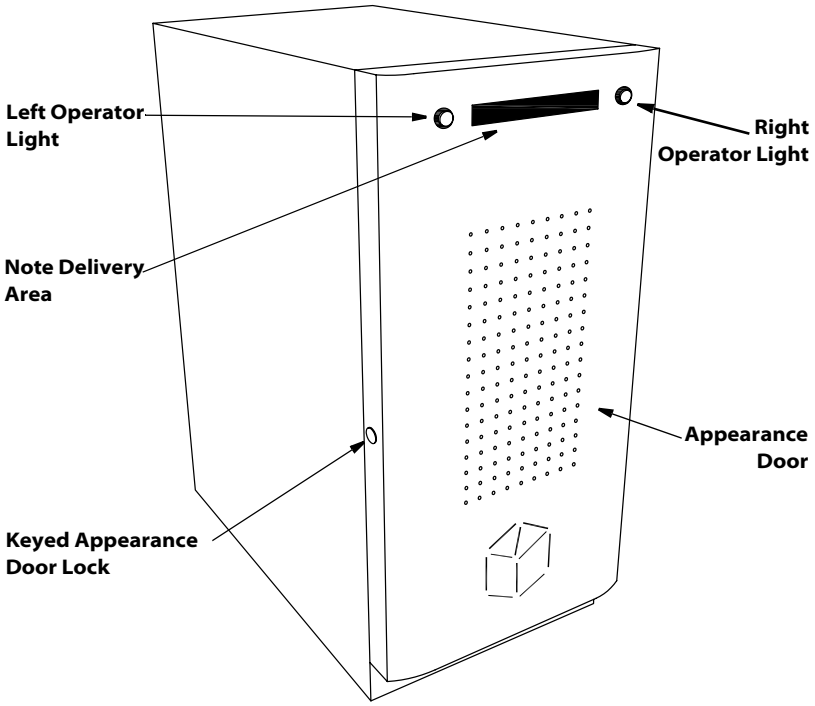


Figure 1-1: Arca2600 Safe Unit (Front Access Model)

Customer Responsibilities

When required by ArcaTech Systems, the customer must provide designated customer service representatives with access to appropriate drawings that indicate:

- Planned 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.

To ensure the environmental requirements of the system are met, the customer must perform the following if necessary:

- 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, lighting 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.
- Provide floor coverings and environmental systems that limit or control static electricity build-up and discharge.

Important:
You will need to provide the serial number when calling for maintenance or service.

Product Identification

The product identification label can be found on the inside of the safe door. The product is identified by its model, part and serial numbers. PLEASE DO NOT REMOVE THIS LABEL FROM THE Arca2600.

2 Physical Requirements

Choosing a Dispenser Location

Prior to receiving the Arca2600 you should select a location in which it is to be installed. There are several criteria to consider when choosing a location:

- Convenience for operators
- Product dimensions
- Product weight and floor loading
- Installation clearances
- Service clearances
- Security bolts and washers (optional)
- Environmental requirements
- Electrical requirements

The electrical requirements for the Arca2600 are described in *Chapter 3: Electrical and Cabling Requirements*.

Convenience for Operators

Efficiency and convenience for operators should be the primary criteria for selecting a suitable location for the Arca2600. If the Arca2600 is to be used by two operators, it should ideally be placed between the two operators so that each have easy access to the note delivery area.

Alternatively, if the Arca2600 is to be used by more than two operators (for instance, as a vault dispenser), then it may be placed behind the counter in an area accessible by all operators.

Product Dimensions

Table 2.A lists the dimensions of the ArcaCash dispenser models 2500 and 2600.

Table 2.A: Exterior Safe Dimensions of Arca2600

Width of Safe	18 in (457 mm)
Height of Safe	38.5 in (978 mm)
Depth of Safe	29.5 in (749 mm)
Total Depth of Safe with Appearance Door	32 in (813 mm)

Product Weight and Floor Loading

The maximum weights and floor loading values of the Arca2600 are illustrated in **Table 2.B**:

Table 2.B: Product Weight and Floor Loading

	Weight*	**Loading**
Arca2500	1155 lb (524 kg)	2.18 lb/in^2 (0.15 kg/cm^2)
Arca2600	1167 lb (529 kg)	2.20 lb/in^2 (0.15 kg/cm^2)

**Weight indicates maximum weight of the safe enclosure and dispenser with all cassettes loaded and filled to capacity with currency.*

Service Clearances

Adequate service clearances should be provided to allow service personnel to connect and disconnect the Power and Communication cables for the Arca2600, as well as to allow the safe door to swing through 180° to allow the dispenser mechanism to rack out for servicing. Refer to **Table 2.C** and **Figure 2-1** for the appropriate service clearances:

Table 2.C: Minimum Recommended Service Clearances

Minimum Clearance	**Front Access Model**	**Rear Access Model**
Rear	6 in (150 mm)	18 in (457 mm)
Right	16 in (406 mm)	14 in (356 mm)
Front	30 in (750 mm)	30 in (750 mm)
Left	6 in (150 mm)	6 in (150 mm)

FRONT ACCESS CONFIGURATION

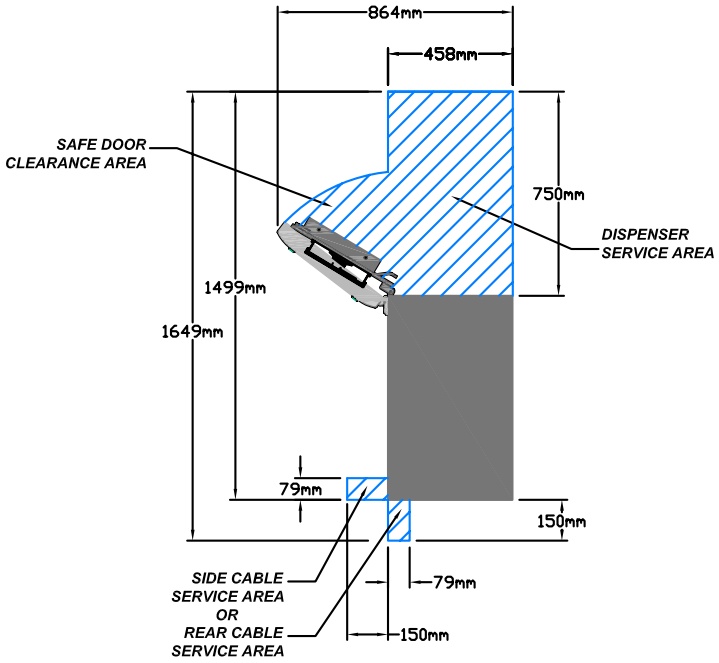
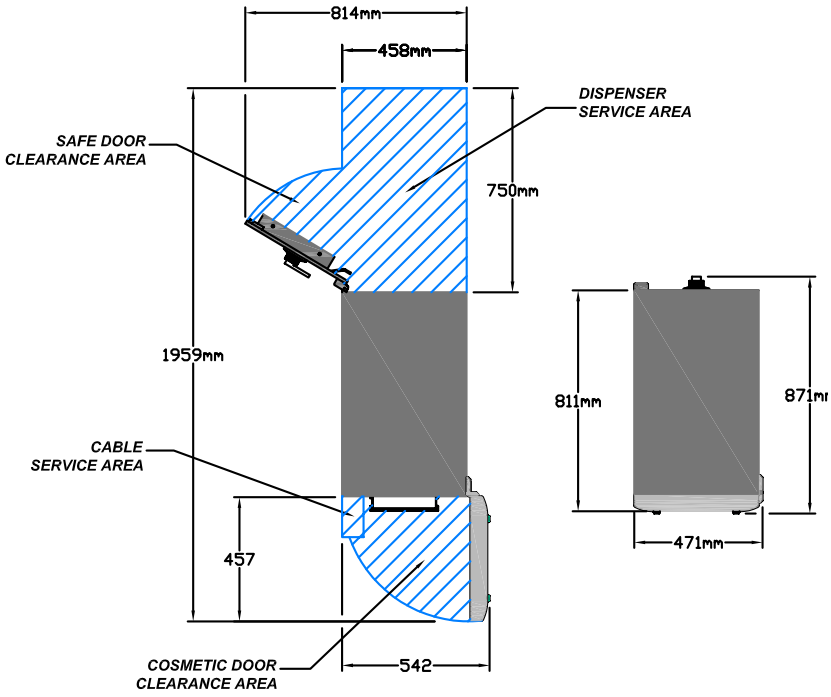


Figure 2-1: Service Clearances for Front Access Model (units shown in millimeters)

REAR ACCESS CONFIGURATION



Important:
Carpet, flooring variances, cabinet placement and uneven surfaces can all affect the placement of security bolts for the secure installation of the safe

Figure 2-2: Service Clearances for Rear Access Model (units shown in millimeter)

Safe Security Bolts

If desired, the Arca2600 can be secured to the floor with safe security bolts. Holes have been provided in the bottom of the safe for this purpose. When preparing the floor to receive the security bolts,

placement of the unit prior to bolting is recommended in order to account for variances at the installation site.

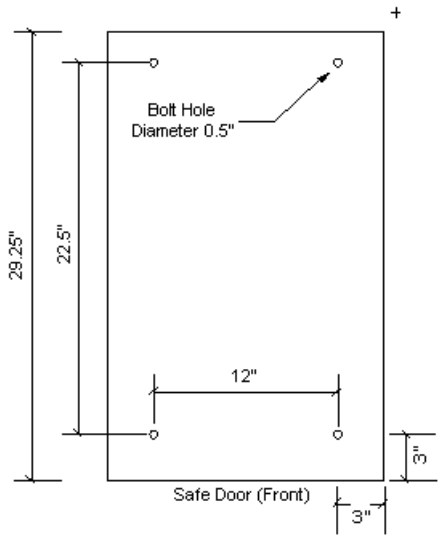


Figure 2-3: Bolt Patterns for mounting safe

Tips on Anchoring the Safe to the Floor

- It is highly recommended that you use the proper tools when floor mounting a safe. You should have a rotary hammer that can handle at least half-inch holes in pressure-packed, aged concrete. (A simpler hammer drill may not be sufficient, as it does not achieve the same force as a rotary hammer).
- Use concrete anchor bolts that are at least 3 inches in length and a half-inch in diameter (the diameter of the holes in the safe bottom is 0.5 inches).
- Do NOT use the type of bolt that employs a separate anchor. The anchor takes up space, so in a half-inch hole you only end up with a quarter-inch bolt -- and the anchors can't be removed.
- Do NOT use the bolts that require you to hit a pin on the top with a hammer to anchor it. It will hold well, but cannot be removed without being cut off with a grinder -- which damages the floor and is dangerous, unpleasant work. Always think ahead to a possible de-installation.
- DO use the type of bolt that is its own anchor as shown in the diagram.
- When drilling the hole, drill it at least one-and-a-quarter times the length of the bolt. When it's time to remove the machine, there will be no need to try to remove it or cut it off. A few hits with a hammer will drive it level with the floor, sealing its own hole. Bolts left sticking out are a liability and an eyesore.

- Remove (vacuum) all of the drilling dust out of the hole. Dust packed in by an incoming bolt will prevent it from going all the way in.
- Use large washers and tighten the nuts well by hand. The tightening of the nut is what locks the anchor in as it moves up. A loose connection also gives a machine a chance to build momentum if someone tries to tear it out.
- Remove all dust and swarf from the area around the bolt holes before securing the safe to the building floor.

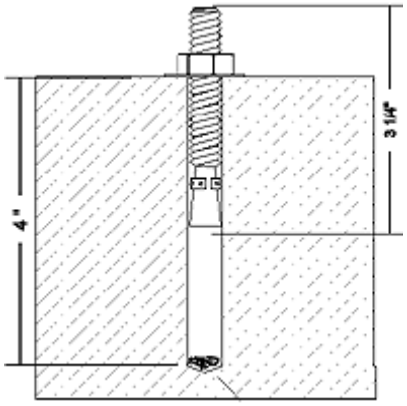


Figure 2-4: Proper Bolts for Floor Mounting

Floor Covering

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

Environmental Requirements

For the Arca2600 Currency Dispenser to function correctly, the installation site should meet the following environmental requirements.

Temperature and Humidity

The Arca2600 can be operated in a wide range of environmental conditions. It is recommended, however, that the unit not be operated continuously at the limits of its temperature and humidity tolerance. Environmental requirements for the Arca2600 are listed in **Table 2.D**.

CAUTION! DO NOT operate the dispenser in moist conditions that could cause condensation.

Table 2.D: Environmental Requirements

	Working	Stop State
Temperature Range	0° C to 32° C 32° F to 90° F	-5° C to 50° C 23° F to 122° F
Humidity Range	10 to 85%	8 to 95%

Acoustical Noise

The Noise Power Emission Level (L NPE) does not exceed the following maximums for Level 1 environments:

- Operating: < 72 decibels
- Idle: < 65 decibels

3 Electrical and Cabling Requirements

This section contains the electrical requirements which must be considered when preparing for the installation of an Arca2600. Also contained in this chapter are details of the external cables which may be connected to the Arca26000.

Power Quality, Distribution and Grounding Requirements

Voltage transients, line noise, surges, sags, impulses, and spikes may be experienced routinely or sporadically. When such phenomena occur, the use of protective devices, as described in *Appendix B*, may be required to ensure proper operation of the equipment.

AC Power Requirements

The branch circuit that provides the AC power to the Arca2600 must meet the minimum requirements according to the power data chart in **Table 3.A**. The circuit should have three conductors (live, neutral, insulated and isolated ground) and be protected by an appropriate circuit breaker. The branch circuit must be installed in accordance with country, state and local codes.

Table 3.A: AC Power Requirements

Voltage	**110 V**	**240 V**
Frequency	50 – 60 Hz	50 – 60 Hz
Current/Amperes	30 A	15 A

It is recommended that the branch circuit be connected to the same load center that provides the AC power for the host software system to which the Arca2600 and coin dispenser are connected.

AC Power Quality

The required AC power distribution system is a dedicated power distribution system that uses insulated/isolated ground lines.

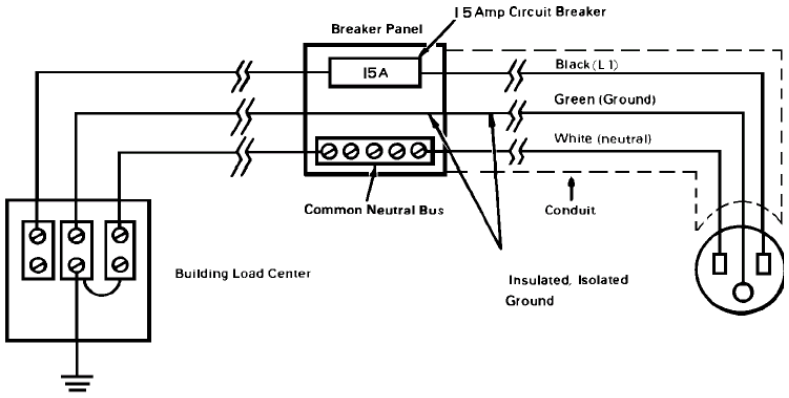
ArcaTech Systems strongly recommends that any device that connects to the shielded communication line of a higher level device has the same quality AC power as the higher level device. If this recommendation is not met, AC power problems on power source for the lower level device source could nullify the quality of the entire local communications network.

IMPORTANT: Performance cannot be guaranteed if the electrical requirements listed in this guide are not met.

Dedicated AC Power System

This system is defined as the feeder from the building load center; all conducted conduits, channels, junction boxes, panels and sub-panels; and all receptacles connected to these panels or sub-panels. Only ArcaTech Systems devices and devices sanctioned by ArcaTech Systems should be connected to this system. The system must contain an insulated/isolated ground line that is only tied to the neutral at the load center.

An example of a dedicated AC power system is shown in **Figure 3-1** and Figure 3-2. **These figures are only examples and are not intended to supersede local electrical codes.**



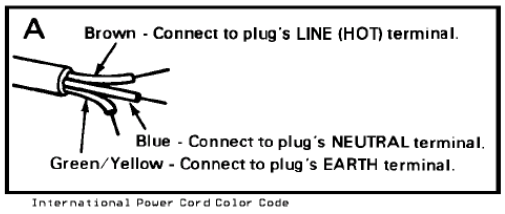


Figure 3-1: Dedicated AC Power System (Example 1)

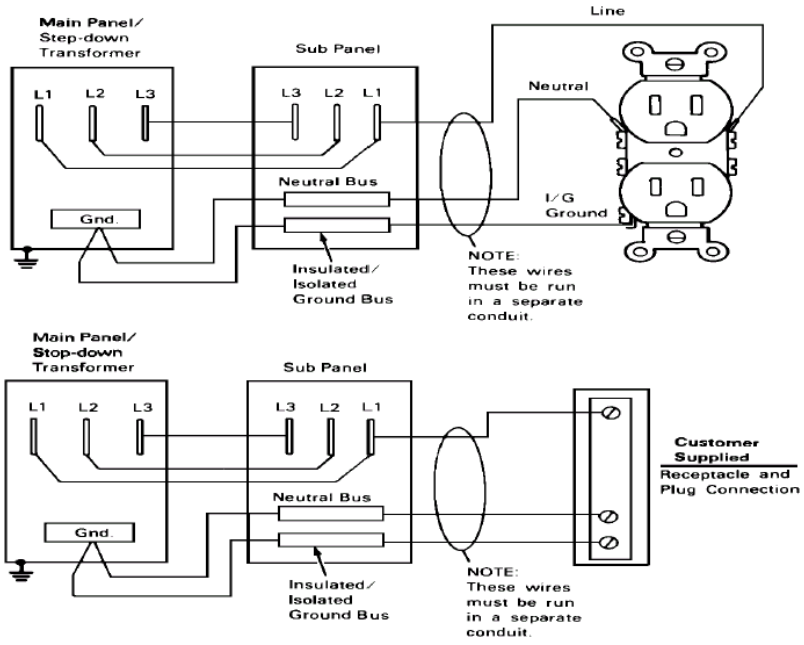


Figure 3-2: Dedicated AC Power System (Example 2)

Transient Power Loss

The voltage loss due to power interruptions must not be more than 50% of the nominal value for a maximum of one half cycle at a maximum rate of 1 every 10 seconds.

External Cables

RS-232 Cables

RS-232 cables can be used for connecting the Arca2600 to an RS-232 port on a parent host unit. These cables are not shipped with the unit. A schematic diagram is shown in **Figure 3-3**.

To connect an Arca2600 dispenser to a 9-pin RJ45 serial port on teller terminal (host unit) use the following cable: 15' RS-232 RJ45 to 9-pin female (this cable corresponds to ArcaTech Part No. 150-401-3001)

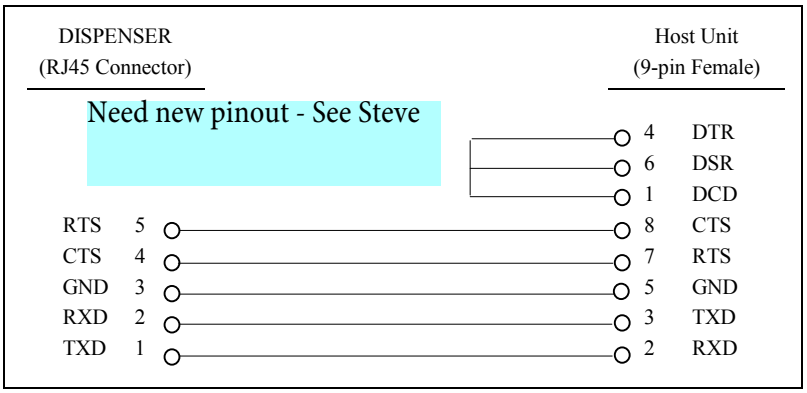


Figure 3-3: RS-232 Cable to Port Connection Diagram

In addition to these dispenser cables, you may also need a cable to connect the Arca2600 to a coin dispenser. In most cases, coin dispensers come equipped with a fixed cable that can be plugged directly into one of the 9-pin RJ45 ports on the Arca2600. However, if a cable is required to connect to the coin dispenser see *Appendix A* for a list of cables and their part numbers and *Appendix C* for the cable configurations.

4 Unpacking the Arca2600

How To Unpack The Arca2600

The dispenser mechanism for the Arca2600 is integrated with the safe enclosure. Prior to installing Arca2600 you should remove all of the shipping packaging from the safe as described in this chapter. To reduce the chance of damaging the finish of the safe, it is recommended that the Arca2600 be moved as close as possible to its installation position prior to removing the packaging.

CAUTION! The Arca2600 weighs approximately 1100 lbs (500 kg). It is recommended that professionals unpack and move the Arca2600.

Removing the Safe Packaging

1. Check the packaging of the safe. If the safe has been obviously damaged or appears to have tipped during transit, contact your ArcaTech Systems representative immediately.
2. Remove the protective wrapping from the safe.
3. Open the safe door. If it is locked, the default combination is 50. Turn counter-clockwise 3 full rotations and stop on 50; then turn clockwise until you feel lock open, usually at about 90. If your safe is equipped with an electronic lock, the normal single user default combination is 1-2-3-4-5-6 # and should be labeled on the lock.
4. Remove the bolts that secure the safe to the shipping pallet with a long handled socket wrench.
5. Remove the protective packaging from around the dispenser. Using a metric Phillips Metric True #2 screw driver, remove the yellow cassette shipping braces. These can be stored using the same mounting holes, by attaching the brackets to the outside of the pick module instead of the inside.

6. Pull and remove the locking pin from the left side of the dispenser. Pull the dispenser out until the slides on which it is mounted are fully extended.
7. Inspect the unit for any internal shipping damage, such as broken or disconnected cables, loose or misaligned pick modules or other apparent problems.
8. If the unit appears to be in good condition, push the dispenser back into the safe and secure it with the locking pin.
9. Carefully remove the safe from the skid. Professional safe moving equipment should be used for this operation.

CAUTION! To prevent the Arca2600 from tipping over, great care should be taken when removing it from the skid.

10. You are now ready to position the safe in its chosen installation location (refer to *Chapter 2: Physical Requirements* for more information on choosing a suitable location).

5 Installing the Arca2600

Introduction

The steps required for installing the Arca2600 are:

- Installing the Safe
- Connecting the Arca2600 to the host terminal/PC
- Connecting the Arca2600 to the coin dispenser (optional)
- Configuring the Currency Cassettes
- Confirming Communications Settings and Dispenser Options using Firmware Utility

Installing the Safe

Important:
Depending on the installation location and access, it may be necessary to connect the power and communication cables before moving the Arca2600 to its operating location.

1. Position the safe in its final location. The safe should be positioned such that the note delivery area is within easy reach of the operator(s).
2. Position the safe to allow enough space for proper access to the cable connectors. Refer to Site Prep Specifications for more details.
3. Ensure the safe is level (the sides of the safe should be completely perpendicular to its top and floor).
4. If you are going to bolt the safe to the floor, do so now. It may be necessary to remove the dispenser mechanism from the mounting rails and disconnect all cables from the mechanism. Refer to *Tips on Anchoring the Safe to the Floor* in Chapter 2: Physical Requirements the recommendations on floor mounting.

Connecting the Arca2600 Dispenser to its Peripherals

You can connect the Arca2600 to one, two or three host terminals. The type of cable you use is determined by the connections available at the host terminal and the host software you are using. See *Appendix A: Arca2600 Parts Guide* for the communication cable types available from ArcaTech Systems.

The steps below outline the procedures for connecting the Arca2600 to its host terminals and optional coin dispenser(s).

IMPORTANT: Host terminals for operating the Arca2600 are not provided with the Arca2600 dispenser. The Arca2600 will communicate with any host software that uses the NCR 5175 or Inter Innovation (DeLaRue/LeFebure) protocols. If you need recommendations as to which type of host connectivity solution may be most appropriate for your installation, contact ArcaTech Systems or one of its authorized dealers.

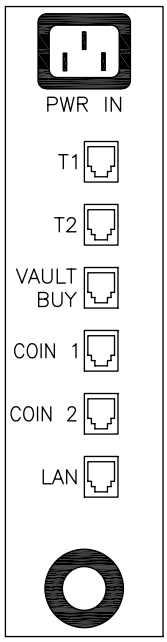


Figure 5-1: Cable Connections to Arca2600 Dispenser

1. Connect the Host Terminals and optional Coin Dispenser(s) as required for your configuration; the cable connector is located on the right rear side of the safe.

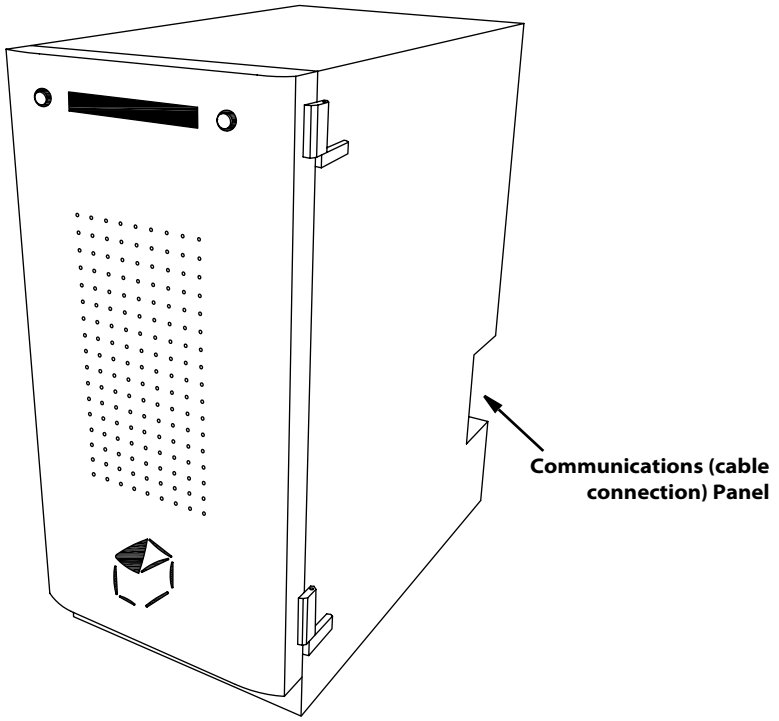


Figure 5-2: Location of the cable connection panel.

Configuring the Currency Cassettes

The currency cassettes have adjustable guides that allow you to configure them to dispense many different sizes of media. For a complete description of the cassettes and the sizes of media they can dispense, please refer to the Service Manual for the Arca2600.

Setting Currency Length

1. There are two types of bill guides in the cassette which line up with markings on the insides of the cassette.

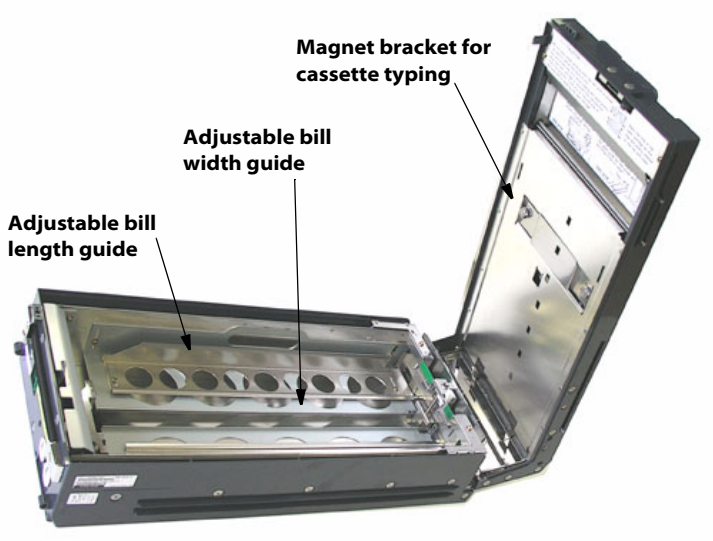


Figure 5-3: Currency Size Guides

2. The **Adjustable Bill Length Guides** (silver color) are found on each side of the cassette and have a vertical brace to keep the notes from shifting out of alignment. The vertical tabs of the guides should line up at the "156" marks at the front and rear of the cassette for US currency. They can be adjusted by loosening the four set screws that hold the guides in place.
3. The **Adjustable Width Guides** (gray color) are also found on each side of the interior of the cassette. These horizontal guides keep the notes at the right level for proper operation of the dispenser picking system. The tabs on either end of the width guide should be inserted into the fourth opening at the front and rear of the cassette for US currency. The sides of these guides are fastened to the side of the cassette by two slotted set screws on each side. The tops of the side

brackets should line up with the fourth hash mark under the “60” mark for US currency. For the settings for non-US currency, please refer to the Service Manual or contact ArcaTech Systems.

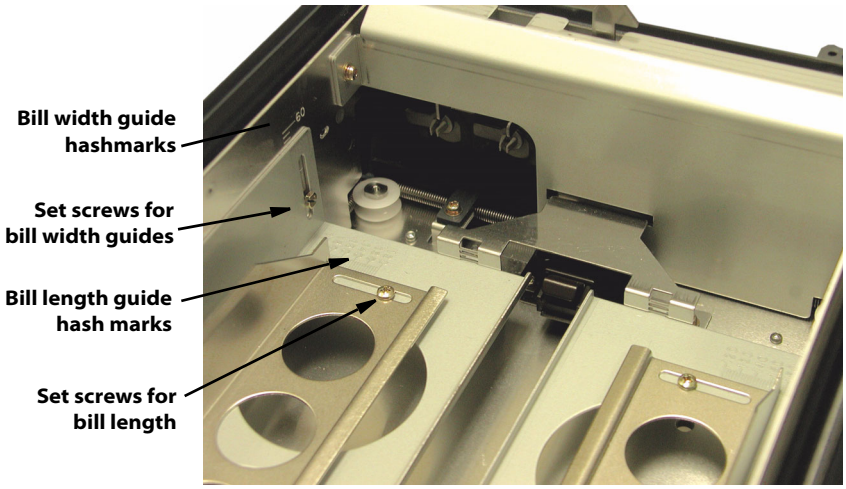


Figure 5-4: Bill width and bill length guides and setting marks

Setting Cassette Types

1. Each Arca2600 dispenser cassette can be configured as Type 1 through 14. For US currency, types 1 through 6are typically used. Each different denomination must use a unique cassette type. The cassette types are configured using magnets located in a panel attached inside the top of the cassette by two thumb screws. **Figure 5-5** illustrates how the magnets should be placed. The magnet placement chart can also be found on the outside lid of the cassette.

CASSETTE TYPE	US Denomination	MAGNET CONFIGURATION ● = Magnet Present			
		D	C	B	A
1	$1	●	●	●	
2	$5	●	●		●
3	$10	●	●		
4	$20	●		●	●
5	$50	●		●	
6	$100	●			●

Figure 5-5: Cassette types, denomination and magnet placement in dispenser cassettes placement.

2. Open the cassette lid. Loosen the two thumb screws and remove the magnet bracket from the lid of the cassette.

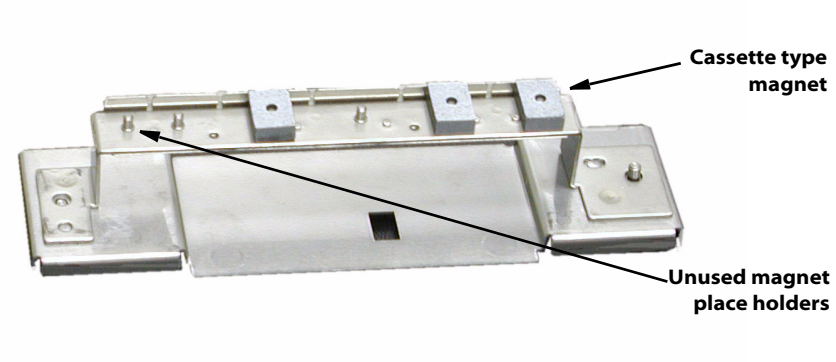


Figure 5-6: Cassette type magnet bracket (removed from cassette lid)

Notice that there are three magnets in the bracket. Place the magnets on the pins in the proper positions for the specific type you are configuring. The far left two pins are designed to hold extra magnets that are not needed.

Adjusting Low Note Sensor Settings

1. A sensor on the outside of each pick module measures the relative position of the pressure plate inside the cassette to the position of the sensor. Changing the position of the sensor determines at what point the "low note" status is flagged.

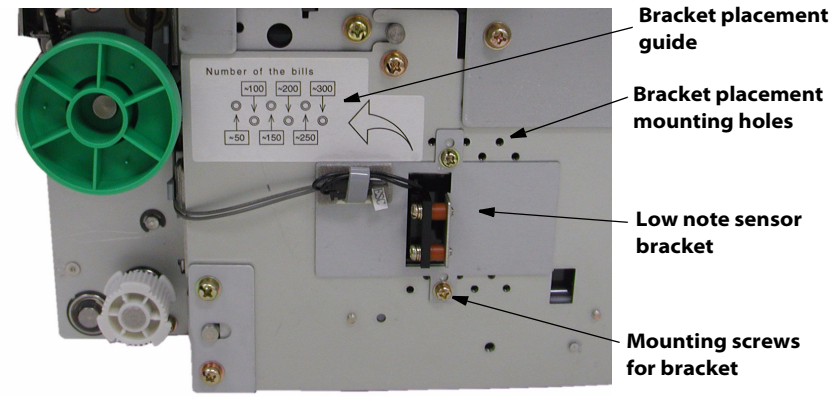


Figure 5-7: Currency Low Note Status Sensor

2. The low note sensor can be set to be triggered at approximately 50, 100, 150, 200, 250 or 300 notes. When the magnet inside the cassette passes the reed switch in the low note sensor, a message is sent from the Arca2600 to the host terminal that the level of notes is low inside the cassette.

Note: The low note sensor level has a default setting of 100 notes.

3. To adjust the setting, remove the mounting screws and position the bracket to the desired setting as shown on the diagram.

Arca2600 Parts Guide

Appendix A

Teller Terminal Cables

Part Number	Description
150-401-3001	15′ DB9 Female to RJ45 - For use with host terminal with a 9-Pin Male Serial Port communicating in DeLaRue/LeFebure emulation mode.
150-401-4522	15′ DB25 Female to RJ45 - For use with host terminal with a 25-Pin Male Serial Port communicating in DeLaRue/LeFebure emulation mode.
150-401-9856	5′ DB25 Female to RJ45 - For use with MiniTerminal host controller.

Coin Dispenser Cables

Part Number	Coin Dispenser Type	Description
150-205-6012	Telequip Transact-1	10′ non-standard RS-232 9-pin male to 9-pin female
150-825-2028	OrangeCoin	10′ non-standard RS-232 9-pin male to 9-pin female
150-205-6014	Telequip Transact 2+	10′ non-standard RS-232 9-pin male to 9-pin female
150-205-9815	CM-1	10′ non-standard RS-232 9-pin male to 9-pin female

Replacement Parts

Part Number	Description
580-000-9270	Currency Cassette (Standard)
580-000-9299	Currency Cassette Locks
call	Workstation Communication Cables
401-291-0051	Touch Up Paint (Frost Gray)
call	Key for safe lock
call	Key for changing lock combination
800-580-5011	Compass Configuration Software

Appendix B

Power 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 cause data corruption. Under these circumstances, ArcaTech Systems 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 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 ArcaTech Systems' warranty. ArcaTech Systems 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 IEEE Standard 587. These categories are described in Table B.1.

Table B.1: Transient Categories

Location Category			
A=Outlets > **10m** (30 ft) from Cat. B A= Outlets > **20m** (60 ft) from Cat. C	II	0.5 μs Risetime, then 100 kHz Ringwave, each peak=60% of previous	6 kV 200A
B=Major feeders, short branch circuits, and load centers	III	Volts=1.3 x 5 μs Current= 8 x 20 μs and 0.5 μs Rise = 100 kHz Ring- waved	6kV 3kA 6kV 500A
C = Service Entrance and run to load center	IV	Volts = 1.2 x 5 μs Current = 8 x 20 μs	10kV or more 10kA or more

- Be 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 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.

Data Line Transient Protection

The nature of the transient phenomenon may extend to 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 voltage limiting and must self-recover after passage of the transient.
- Exhibit a 'short circuit' mode upon its failure to insure a positive indication of its failure.
- Insert less than 5 ohms resistance and minimal inductive and capacitive loading at the operating frequency, in each data line in order to avoid signal degradation.
- Be installed in accordance with all applicable local, state, and national electrical codes and regulations.

Appendix C

Coin Dispenser Cable Configurations

Telequip Transact 2+ to PC Serial Port

Telequip RJ45 Male			PC DB9 Female	
RXD	5	Green	2	TXD
TXD	6	Yellow	3	RXD
GND	7	Brown	5	GND

Telequip Transact 2+ to AC2600

Telequip RJ45 Male			AC2600 RJ45 Male	
RXD	5	Green	2	TXD
TXD	6	Yellow	1	RXD
GND	7	Brown	3	GND

Telequip Transact 1 to PC Serial Port

Telequip DB9 Female		PC DB9 Female	
TXD	2	3	RXD
RXD	3	2	TXD
GND	5	5	GND

Telequip Transact 1 to AC2600

Telequip DB9 Female		AC2600 RJ45 Male	
TXD	2	1	RXD
RXD	3	2	TXD
GND	5	3	GND

CM-1 to AC2600

CM-1 DB9 Male		AC2600 RJ45 Male	
RXD	2	2	TXD
TXD	3	1	RXD
GND	5	3	GND

CM-1 to PC Serial Port

Cm-1 DB9 Male		PC DB9 Female	
RXD	2	2	TXD
TXD	3	3	RXD
GND	5	5	GND