

S2 Low Profile 2-Pocket Discriminator
USER MANUAL

The logo features a red stylized 'C' icon on the left. To its right, the word 'Cassida' is written in a grey sans-serif font, followed by 'PRO' in a bold, dark grey sans-serif font. Below this, the number 'S2' is displayed in a bold, black sans-serif font.**Cassida[®]PRO**
S2



Battery Warning: (1) Keep out of the reach of children. Swallowing may lead to serious injury or death in as little as 2 hours due to chemical burns and potential perforation of the esophagus. See a doctor immediately and ask them to call (202) 625-3333. Keep in original package until ready to use. Dispose of used batteries immediately.

(2) Risk of injury due to fire, explosion or leakage. Do not disassemble, charge, crush or expose to fire or high temperatures. California Only: Perchlorate material - special handling may apply.

California Proposition 65 Warning: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Warning: Moving parts present. May cause serious injury to hands or fingers.

In the event of incorrect operation or care of the unit, the manufacturer is not responsible for damage caused to the unit or the operator. Cassida is not liable for damages resulting from use of the unit for purposes other than for the intended purpose without prior written consent from Cassida. Modifications made to the unit by persons other than Cassida or its authorized contractor/subcontractor are strictly prohibited. Any damages resulting from the unauthorized modification of the unit are not the responsibility of Cassida. For proper installation and/or transport of the unit, please consult an authorized Cassida distributor or sales representative.

Please Note:

- The contents of this manual are subject to change without notice.
- While every effort has been made to include all the features and functionality of your unit, specifications stated in this manual may not reflect all the features of software updates. You may encounter differences in operation or functionality of your unit.
- No part of the manual may be reproduced for commercial purposes without prior written consent from Cassida.
- Due to power and safety specifications, this product has been developed for use in specific countries as described in the specifications. Use in unspecified countries is prohibited.
- This equipment has been tested and complies with the limits to a Class A digital device, pursuant to Part 15 of the FCC Rules.

If you have questions about the operation of the Cassida Pro S2, please contact your Cassida licensed reseller or refer to Cassida's user portal at www.CassidaPro.com.

IMPORTANT SAFETY INSTRUCTIONS

When using this unit, basic safety precautions should always be observed including:

- Read this manual in its entirety.
- Do not use areas that could expose the unit to water or other liquids.
- Install on a flat surface.
- Do not use in areas exposed to high temperature, humidity or smoke.
- For indoor use only.
- Store and operate the unit in a well ventilated environment, and away from direct sunlight, high intensity lighting and magnetic fields that could interfere with suspect bill sensors.
- Do not touch moving parts during operation.
- Keep foreign objects - paper clips, staples, etc. - away from moving parts or from falling into the unit.
- Operate using a surge suppressor or power conditioner. When not in operation for extended periods of time, disconnect the power cord from the wall outlet.
- Prior to and during cleaning, unplug the unit from the wall. Follow the cleaning instructions and maintenance schedule contained in this manual.
- Do not service your unit. Contact your authorized Cassida technician, distributor or sales representative for technical assistance.

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1. INTRODUCTION

1.1 About the Cassida Pro S2

Thank you for choosing the most innovative 2-pocket currency discriminator, the Cassida Pro S2. The S2 is a professional grade, compact, high performance value counter and sorter combined with the industry's leading suspect counterfeit currency detection technology.

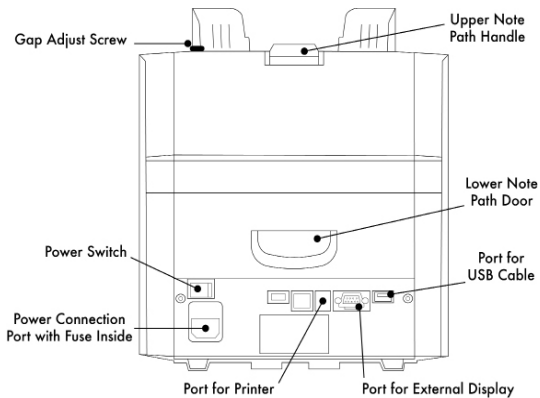
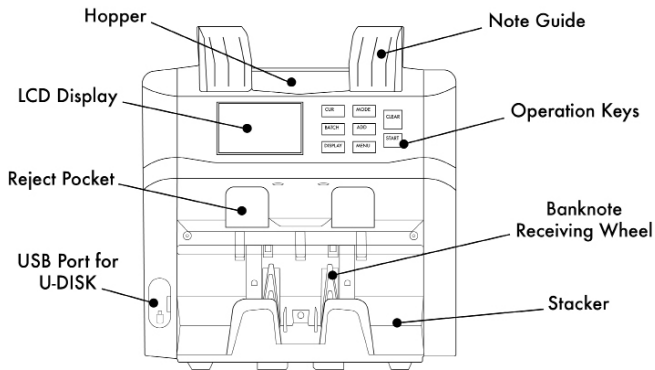
Ergonomic with a convenient and intuitive control panel, Cassida Pro S2 features numerous counting modes and professional detection. Its small footprint makes the S2 a welcome addition to any small teller's table or in the limited space of any exchange office.

Adaptive and easy-to-use, the Cassida Pro S2 can be used for a number of applications including bank branches, casinos, high cash volume retailers, cash centers, exchange offices, and in high-cash transaction environments.

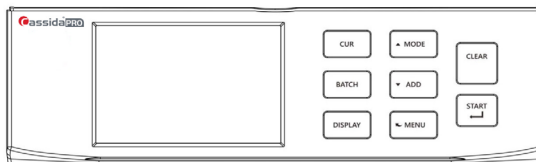
1.2 Box Contents

- Cassida Pro S2 Low Profile 2-Pocket Currency Discriminator
- Power Cord
- Calibration Sheets
- User Manual
- Cleaning Brush
- Desiccant Packet
- Fuse

1.3 Views of the Cassida Pro S2



1.4 Control Panel Overview



Key	Description
CUR	<ol style="list-style-type: none"> 1. Selection of desired currency. 2. Used as "+1" function in the menu interface.
BATCH	<ol style="list-style-type: none"> 1. Batch function ON/OFF, and set batch number. 2. Used as "-1" function in the menu interface.
DISPLAY	<ol style="list-style-type: none"> 1. View the counting detail. 2. Long press to print the counting detail.
MODE	<ol style="list-style-type: none"> 1. Selection of the counting mode: MIX → SORT → FACE → ORIENT → COUNT 2. Used as a navigate key "↑" in the menu interface.
ADD	<ol style="list-style-type: none"> 1. "ADD" function ON/OFF. 2. Used as a navigate key "↓" in the menu interface.
MENU	<ol style="list-style-type: none"> 1. Press to enter the User menu. 2. Press to return to the previous menu at menu interface.
CLEAR	<ol style="list-style-type: none"> 1. Clear the number of counted banknotes. 2. Clear the unsaved settings. 3. Press to turn the batch function OFF.
START	<ol style="list-style-type: none"> 1. Start counting. 2. Confirm selection in menu interface.

1.5 Glossary of Terms

- Bills:** Refers to any currency or denomination to be counted.
- Hopper:** Location where user places bills to be counted.
- IR:** May refer to either the S2 infrared sensors, or infrared features built into modern currencies.
- MG:** May refer to either the S2 magnetic sensors, or magnetic features built into modern currencies.
- Pocket:** Locations where sorted bills pass to.
- Reject:** A bill that either is flagged as a suspected counterfeit note or a note which cannot be identified or read by the S2 due to wear, soiling, wrinkling, tearing, or various other blemishes.
- Stacker:** The pocket to which accepted genuine bills are passed.
- Strap:** A user-determined quantity of bills to be bundled or batched together.
- Suspect:** Bills which are rejected as suspect are flagged by the S2, for absent, different, or indeterminable counterfeit features.
- UV:** May refer to either the S2 ultraviolet sensors, or ultraviolet features built into modern currencies.

2. OPERATION

2.1 Getting Started

Connect power cable NEMA 5-15 plug in to a grounded AC Mains. Connect the IEC 320 C13 end to the Power inlet in the back of the machine (Refer to 1.3. for reference), making sure that the hopper is empty. Turn the power on by engaging the power switch located on the back of the machine. Upon a short boot-up and self-test, the main screen will become active, and the unit is ready for operation.

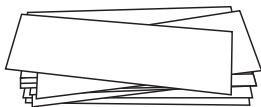
2.2 Loading Bills

Before loading bills into S2, ensure the desired currency and operation modes are selected. Proper alignment of bills into the hopper reduces feed errors, jamming, and identification reject errors caused by misaligned bills. Bills should be stacked neatly prior to loading, and placed between the hopper bill guides at the center of the hopper.

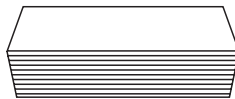
Avoid counting bills that are wet, excessively dirty, folded, curled or otherwise misshapen. Ensure no objects are present within the bills being loaded, including coins, paper clips, rubber bands or any other foreign materials. These objects will damage S2 and cause failures.

To Reduce Rejects:

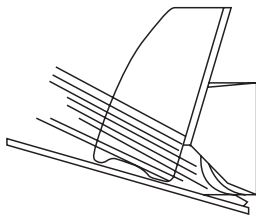
- Place the bills evenly arranged as shown below.
- Adjust bill guides to fit to the size of the bills.
- Correct the bills if they are severely wrinkled or damaged.



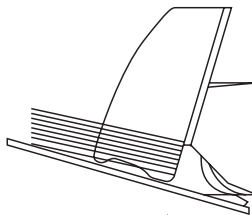
X



✓

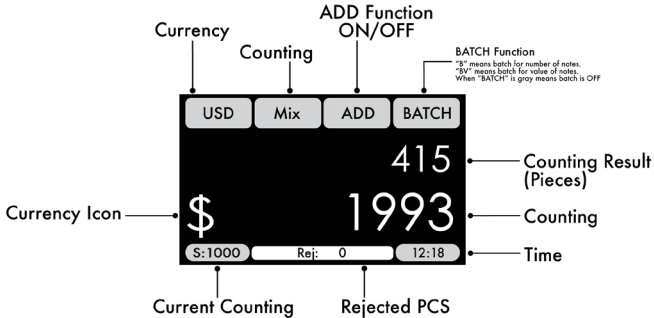


X



✓

2.3 Main Screen Overview

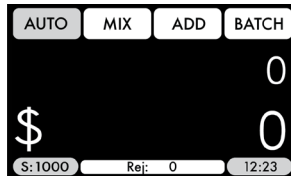
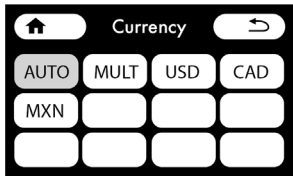


2.4 Currency Selection

Press **CUR** key to select the desired currency. Or tap the **"AUTO"** area on the display to enter the currency selection interface.

Note:

"AUTO" currency means machine will detect which currency automatically.



“**MULT**” currency means you can count mixed currencies; it will count them together automatically.

MULT	MIX	ADD	BATCH
CUR	PSC		VAL
USD	15		100
CAD	10		5
MXN	20		10
S:1000	Rej: 0		12:20

2.5 Counting Modes

Tap the **MODE ICON** or press **MODE** key to select the desired counting mode. There are 6 counting modes available on Cassida Pro S2.

- **MIX Mode**

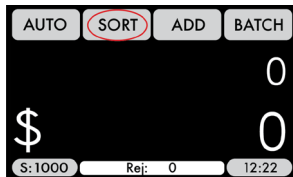
Tap the **MODE ICON** or press **MODE** key to select the MIX mode. MIX mode is the default sorting mode for the S2. MIX mode counts a stack of mixed bills regardless of denomination changes and sums the total while applying all counterfeit detection features. After running a mixed stack of denominations, the S2 will display the dollar amount total, and the number of bills counted. In this mode, only suspect bills or error bills will be rejected. No sorting will occur. Only counterfeit suspects or notes unreadable due to condition are sent to the reject pocket.

AUTO	MIX	ADD	BATCH
			0
\$			0
S:1000	Rej: 0		12:20

- **SORT Mode**

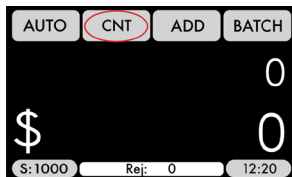
Tap the **MODE ICON** or press **MODE** key to select the SORT mode. SORT mode is intended to sort out a single denomination from a mixed stack of bills while running all selected counterfeit detection features. This mode is also used for 'rogue' or 'stranger' checking in a stack of bills intended to be of the same denomination. All bills of the selected denomination will pass to the stacker. All other denominations and any error or suspect bills will not be counted and will be rejected.

SORT mode defaults to FIRST BILL THROUGH as the denomination of choice. The first bill placed in the stacker will be recognized by the S2 and set as the denomination to send to the stacker. By clearing the stacker and hopper, the S2 will reset the first bill through to the next stack. This allows for quick sorting of mixed stacks without having to choose each denomination manually.



- **COUNT Mode**

Tap the **MODE ICON** or press **MODE** key to select the COUNT mode. COUNT mode is intended to count the number of physical pieces placed in the hopper. In this mode counterfeit detection is disabled. Only the count will update. This mode may be used to count the number of pieces of any article that will pass through the S2, including tickets, tags, barcodes, papers, etc. and no bills will be rejected unless a physical counting error occurs (DOUBLE, CHAIN, etc.)



- **FACE Mode**

Tap the **MODE ICON** or press **MODE** key to select the FACE mode. FACE mode is used to sort a stack of mixed orientation bills to all face up or face down which is determined by the first bill placed in the hopper. This mode will not account for rotation of the bill but will retain all enabled counterfeit detection features. Mixed or sorted bills will pass to the stacker regardless of denomination. All bills which are opposite facing compared to the first bill through will be rejected, as well as any recognition errors, or suspected counterfeit bills. After running a stack of bills, the S2 will display the dollar amount total, and the number of bills counted.



- **ORIENTATION (ORT) Mode**

Tap the **MODE ICON** or press **MODE** key to select the ORIENTATION mode. ORIENTATION mode is similar to FACE mode in that the S2 is sorting bills by the physical orientation each bill is scanned. In orientation mode, the S2 accounts for all 4 possible rotations as follows:

1. Face up, reading orientation
2. Face up, upside-down wording
3. Face down, reading orientation
4. Face down, upside-down wording

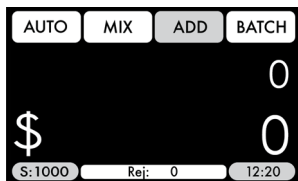


The orientation being sorted is determined by the orientation of the first bill placed in the hopper. All selected counterfeit detection features will remain active during the sorting process. All bills which are of different orientations compared to the first bill through will be rejected, as well as any recognition errors, or suspected counterfeit bills. When a counterfeit suspect is sent to reject.

2.6 Function

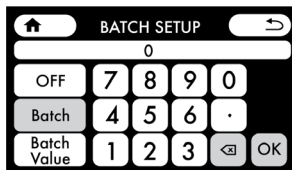
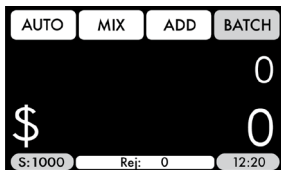
- **ADD Function**

The ADD function on the S2 is used to keep a continuous count through various different counting events. Tap the **ADD ICON** or press **ADD** key to select the ADD function. The S2 will sum the total denomination and count of all bills being counted until the user clears the sum or turns off ADD function by tapping **ADD ICON** or pressing **ADD** key.



- **STRAP/BATCH Function**

Strapping or Batching are terms used to describe a set of bills of a predetermined value or number of bills. Tap the **BATCH ICON** or press **BATCH** key to select the BATCH function. A "STRAP" or "BATCH" in this context refers to the physical strap or band placed around a set of bills as seen often in the banking industry. Various strapping modes are built in to the S2 to allow for a large range of applications from creating a single denomination, to a mixed denomination stack of predetermined dollar amount.



Strapping is available in all modes, though some are more intuitive than others. In general, strapping or Batching is most commonly used in SORT or MIX modes.

Press BATCH key and select the most standard number of bills (100, 50, 25, 20, 10) desired in the strap.

Alternately, tap the batch icon to enter a custom amount using the key pad and tapping OK.

2.7 Post Count Summary and Detail

The report screen is used to display details of the counting that has just been completed. Once bills have been run through S2, the REPORT screen is used to view details on per-denomination breakdown, print the current sum of the most recent run.

USD		
Denom	Pos	Value
1	531	531
2	6	12
5	6	30
10	6	60
20	8	160
50	0	0
100	12	1200
Total	569	1993

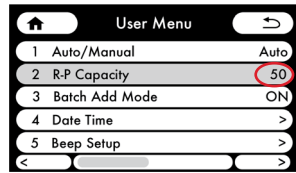
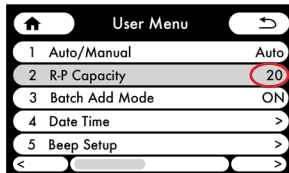
3. MENU SETTINGS AND DESCRIPTIONS

3.1 Auto/Manual Start

Press the menu button. Auto/Manual feature allows user to set how the S2 will operate once currency is placed in the hopper. The S2 is preset to AUTO START which means that once the currency is placed in the hopper, the S2 will start counting immediately. If MANUAL START is selected, then user will need to press [START/STOP] button to initiate operation.

3.2 Reject Pocket Capacity

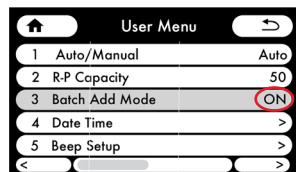
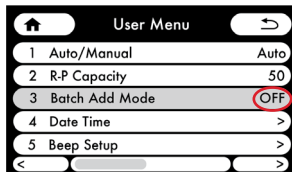
Press the **MENU** button and tap screen to toggle between 20, 30, 40, 50. If the pocket capacity is set too high dependent on the type of bills being used (circulation vs new), there is a risk of bills being ejected from the reject pocket.



3.3 Batch Add Mode

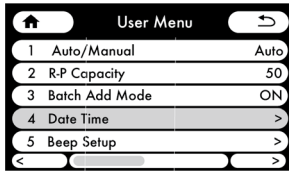
Tap screen to toggle between on or off. When you enable this function, the S2 considers two conditions to continue with counting.

1. If the hopper is empty when batch is reached, the main count will be cleared to "0" when the stacker is cleared
2. If there are any notes left in the hooper after batch is reached, the main count will keep accumulating when the stacker is cleared.

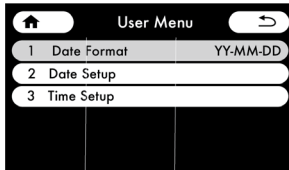


3.4 Date & Time

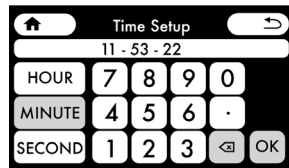
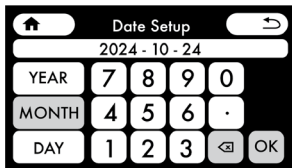
Press the MENU button and tap screen to modify Date & Time. This feature allows user to select the date format for S2.



Here you can select the Date Format DD-MM-YY, MM-DD-YY or YY-MM-DD.

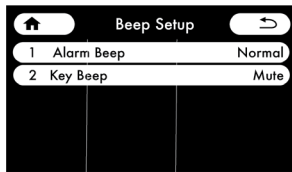
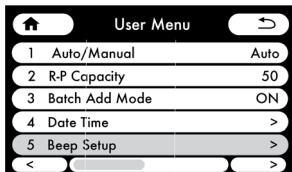


By double tapping date or time set up, user can set up date and time.



3.5 Beep Setup

This feature enables users to control when the S2 beeps. By default, every key stroke or tap on screen produces a beep sound to give user feedback of the action. In this menu, you can turn on and off beep settings that calls for Alarm events like a reject and/or for keystrokes.



3.6 Capture Image Option

This feature enables users to collect image data. The three options are Accept, Reject and All. When accept is selected, only images that go to the stacker are scanned. When Reject is selected, then only bills that are rejected are scanned. If All is selected, all of the bills that go to the reject pocket and stacker are selected.

3.7 Version

Tap this option to view specific information about the unit like the serial number, HW and Software versions.

3.8 System Options

In the system menu, users can adjust the count speed for specific modes, configure settings for the external display, select options for Auto, Multi, and Default currency settings, and choose the time format for receipt printing.

Counterfeit Detection Sensors	Dual CIS, MG, Dual-Wavelength IR, UV
Value Count Speed	1000 notes/minute
Free Count Speed	1200 notes/minute
Hopper Capacity	500 notes
Stacker Capacity	200 notes
Power Supply	100-240V AC, 50/60Hz
Interface	RJ9, DB9, USB
Dimensions	10.6"x10.2"x10.4" (W)x(H)x(D)
Net Weight	18.3 lbs

5. APPENDIX ERROR MESSAGES

Self-Test error messages and solutions

Error message	Solutions
UV Fault	1. Put the machine to a suitable place to avoid strong light on the top cover. 2. Remove the banknote from the machine and/or remove dust from UV sensor.
Right Counting Fault Middle Counting Fault Left Counting Fault	Remove the banknote and/or remove dust from group B IR sensor.
Right CIS IR Fault Left CIS IR Fault	Remove the banknote and/or remove dust from group A IR sensor.
CIS#1 Fault	Remove the banknote and/or remove dust from the CIS.
Receiving Fault	Remove the banknote from the stacker and/or remove dust from receiving sensor.
Rejector Fault	Remove the banknote from the stacker and/or remove dust from reject sensor.
Feeding Fault	Remove the banknote from the hopper and/or remove dust from reject sensor
Rotate #1 Speed Fault Rotate #2 Speed Fault	Remove dust from rotate speed sensor.
C1 IR Fault C2 IR Fault D1 IR Fault	Remove the banknote from the C&D IR and/or remove dust from C7d IR sensor.

Reject error messages and possible solutions

Deno Diff	The denomination of this banknote is different from the first detected denomination of this counting batch.
Ver Diff	The issued version of this banknote is different from the first detected issued version of this counting batch.
Face Diff	The face direction of this banknote is different from the first detected face direction of this counting batch.
Orient Diff	The orient of this banknote is different from the first detected orient of this counting batch.
Image#3	<ol style="list-style-type: none">1. Count Again.2. Do a sensor calibration.3. If problem persists, capture the image data to your sales for further check.
IR Image Error	<ol style="list-style-type: none">1. Count Again.2. Do a sensor calibration.3. If problem persists, capture the image data to your sales for further check.
UV-Error	<ol style="list-style-type: none">1. Count Again.2. Do a sensor calibration.3. If problem persists, capture the image data to your sales for further check.
MG-Error	<ol style="list-style-type: none">1. Count Again.2. If problem persists, capture the image data to your sales for further check.
MG1-Error	<ol style="list-style-type: none">1. Count Again.2. If problem persists, capture the image data to your sales for further check.
MG2-Error	<ol style="list-style-type: none">1. Count Again.2. If problem persists, capture the image data to your sales for further check.

MG3-Error	<ol style="list-style-type: none"> 1. Count Again. 2. If problem persists, capture the image data to your sales for further check.
IR-Error	<ol style="list-style-type: none"> 1. Count Again. 2. Do a sensor calibration. 3. If problem persists, capture the image data to your sales for further check.
Width	<ol style="list-style-type: none"> 1. Count Again. 2. Do a sensor calibration and motor speed adjustment. 3. If problem persists, capture the image data to your sales for further check.
Slant	<ol style="list-style-type: none"> 1. Count Again. 2. Check and adjust the feeding gap. 3. If problem persists, capture the image data to your sales for further check.
Chained#1	<ol style="list-style-type: none"> 1. Count Again. 2. Check and adjust the feeding gap. 3. If problem persists, capture the image data to your sales for further check.
Double	<ol style="list-style-type: none"> 1. Count Again. 2. Check and adjust the feeding gap. 3. If problem persists, capture the image data to your sales for further check.
Half	Check if the banknote got damaged.
Length	<ol style="list-style-type: none"> 1. Count Again. 2. Do a sensor calibration. 3. If problem persists, capture the image data to your sales for further check.

Old Ver	Check if the banknote already out of circulation.
Others	1. Count Again. 2. If problem persists, record the operational details before and after the problem occurred, then capture the image data to your sales for further check .

Alarm Messages and possible solutions

Error message	Solutions
Batch Reached	Counting result reaches present batch value. Remove the banknotes from the stacker.
Stacker Full	Capacity of stacker is full. Remove the banknotes from the stacker.
Rejector Full	Capacity of reject pocket is full. Remove the banknotes from the reject pocket.
Cover Open	1. Close the top cover. 2. If the top cover is not open, there may be notes inside the machine, remove it.
Back Drawer Open	Close the back drawer.
JAM	Some foreign substance falls inside the machine or notes are blocked, open the back cover to remove them.
Mainloop Broken	Turn off the machine and restart it.
Check Stacker	Remove the banknotes from the stacker.
Clean IR Sensor A1 Clean IR Sensor A2 Clean IR Sensor B1 Clean IR Sensor B2	Remove the dust or banknotes from the A&B IR sensors.

6. MAINTENANCE, CONTACTS, AND SPECIFICATIONS

6.1 Maintenance and Cleaning

Regular maintenance is required for optimal performance. All parts of the Cassida Pro S2 require daily care and cleaning. S2 sophisticated sensors are very sensitive and delicate components. Any dust or foreign matter that may adhere to the sensors may impact the unit's performance and operation.

NOTE: Clean the sensors before contacting a service technician.

Cleaning Instructions

Unplug the unit from all power sources before beginning the cleaning procedure.

- Do not use solvents or harsh chemical cleaning solutions.
- Clean the unit daily.
- Clean sensors with a damp cloth or an air duster, soft bristled brush, or the Cassida Cleanbill Pro cleaning card.
- Clean the rubber rollers with the Cassida Cleanbill Pro cleaning card.
- Empty the dust drawer daily.
- Perform complete maintenance once every 3 months. Contact your authorized Cassida service technician to schedule regular maintenance.

WARNING

Before performing any cleaning procedure, switch off the unit by pressing the power button on the back of the unit to the "off" position.

Once powered off, unplug the unit from all power sources.

DO NOT use solvents or harsh chemicals such as alcohol to clean the unit.

Replace battery yearly with a CR2302.

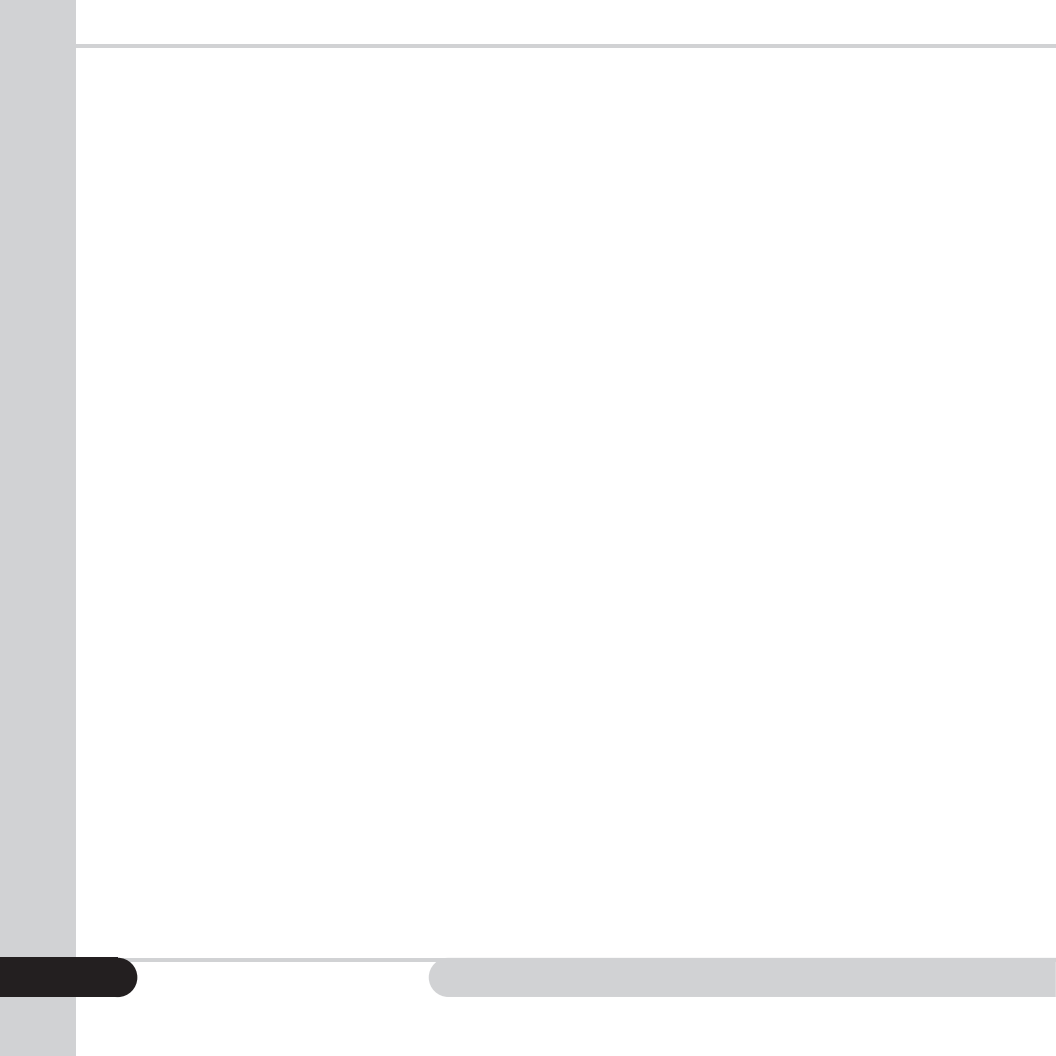
6.2 Contact Information

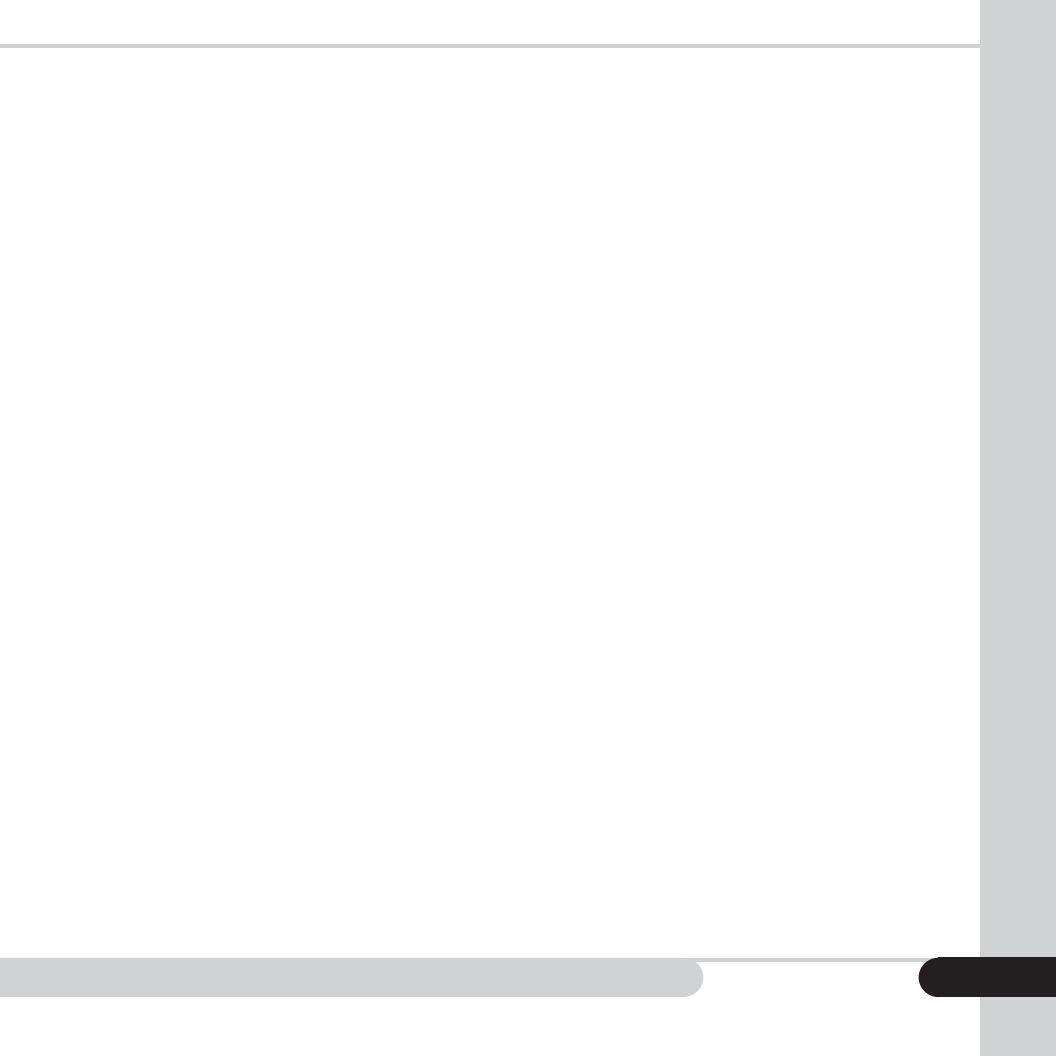
Technical support contact information:

Tel: (888) 800-0303
www.CassidaPro.com

6.3 Specifications

Feeding System Type:	Roller Friction
Counting Speed:	1200 Notes/Min
Hopper Capacity:	500 Note
Reject Pocket Capacity:	50 Notes
Stacker Capacity:	200 Notes
Dimensions:	10.6" x 10.2" x 10.4" (271 x 260 x 264mm)
Display:	3.5" Touch Screen
Interface:	LAN (optional), RJ-9, DB9 (RS-232), USBx2
Detections:	MG, UV, IR, CIS
Power Supply:	100-240V, 50/60Hz
Battery Supply:	CR 2302
Size (WxDxH):	10.9" x 9.8" x 12" (276 x 250 x 305 mm)
Weight:	18.3 lbs (8.3 kg)
Ambient Temperature:	50°F - 95°F (10°C - 35°C)
Relative Humidity:	20% - 90% R.H. (Non - Condensing)





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