



Troubleshooting Guide
NH-1500, NH-2100T and NH-RMS

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CARD READER

DOES NOT READ ANY CARDS.

1. Check for debris.
2. Clean card reader with approved card reader cleaner.
3. Check cable connection at reader and at Panel Controller PCB.
4. Check card scan test in Diagnostics
5. Check green LED on back of card reader.
 - A) Flashing LED indicates communication is good.
 - B) Solid LED indicates communication failure.
 - C) No LED indicates no power to card reader.
6. Check card end sensor at the back of the reader for functionality and debris.
7. Check status of card end sensor in Diagnostics.
8. Check voltage at the reader, unit requires 12vdc.
9. Possible failed Card Reader or Panel Controller board

DOES NOT READ SOME CARDS.

1. Check for debris.
2. Clean card reader with approved card reader cleaner.
3. Check cable connection at reader and at Panel Controller PCB.
4. Check card scan test in Diagnostics
5. Check card end sensor at the back of the reader for functionality and debris.

COMBINATION LOCK

DEFAULT COMBINATION

1. 50 - 25 - 50
 - A) Spin dial counter-clockwise 4 times, stop on 50.
 - B) Spin dial clockwise, pass 25 twice, stop on 25 the third time.
 - C) Spin dial counter-clockwise, pass 50 once, stop on the second time.
 - D) Spin dial clockwise, pass zero until dial stops, turn handle.
2. Always change the combo with the vault door open.

DOOR DOES NOT OPEN AFTER DIALING IN COMBO.

1. Verify correct combination.
2. Dial in combo 1/2 number high, if fails, try one number high.
3. Dial in combo 1/2 number low, if fails, try one number low.

Communications

**SURCHARGE DIFFERS FROM
AMOUNT ENTERED INTO UNIT.**

1. Verify the surcharge amount matches with the host.

NOT ALL CARDS GET SURCHARGED.

1. Verify entry of card bin number in the Bin List menu.

**UNIT WILL NOT GO ONLINE AFTER
PROGRAMMING.**

1. Verify unit reports "Normal 000000" before initializing.
2. Verify phone line is functional.
3. Verify correct setup programming information.
4. Verify with Host that the terminal I.D. is "activated" or "turned on".

**TRANSACTION TAKES A LONG TIME
TO PROCESS.**

1. Verify Primary phone number is correct.
2. Verify phone line is clean and has no static.
3. Check for loose connections on phone line and jack.
4. Verify path of in-house phone line is not close to anything that may create electrical interference.

DISPENSER

HIGH NUMBER OF REJECTED BILLS

1. Inspect condition of bills.
 - A) No torn, folded, stapled, or taped bills.
 - B) Bills should be "ATM Fit".
 - C) Cassette must not be overloaded, too many bills cause high pressure on pick wheels.

HIGH NUMBER OF PICK FAILURES

1. Inspect condition of bills.
2. Be sure no straps are left on money in cassette.
3. Inspect retaining clip for cassette latching.
4. Inspect condition of pick wheels.

CUSTOMER RECEIVED MORE BILLS THAN REQUESTED.

1. Verify correct denomination of bills in cassette.
2. Perform a test dispense in Diagnostics.
3. Audit cassette.

DISPLAY

BLUE DISPLAY (BULB IS LIT)

1. Adjust video contrast.
2. Verify ribbon cable is plugged into correct port on CE board.
3. Verify correct voltages on power supply.
4. Verify cable connections on Panel Controller board and CE board.
5. Verify cable connection on LCD and Controller board.
6. Verify comms L.E.D. on card reader, printer PCB or dispenser are flashing.

NO DISPLAY (BULB IS NOT LIT)

1. Adjust video contrast.
2. Verify unit is ON.
3. Verify voltage to light bulb is correct, 1000 - 1600 vac.
4. Verify voltages at power supply.
5. Verify correct cable connections at Panel Controller board and CE board.

LINES ON DISPLAY

1. Verify lines are on graphics only or on menu also.
 - A) Graphics only, reload graphics.
 - B) Both, check cable from LCD to controller board.

LINES ON BUTTONS

1. Incorrect graphics, (ie. Mono software with color graphics)

INCORRECT GRAPHIC DISPLAYED

1. Verify correct advertisement selected.
 - A) #6 is designated for a DIP reader.
 - B) #7 is designated for a SWIPE reader.

ELECTRONIC LOCK

BEEPS AFTER AFTER COMBO IS ENTERED THEN A SERIES OF BEEPS

1. Possible low battery. Replace battery, try combo again.

BEEPS 3 TIMES AFTER COMBO IS ENTERED.

1. Possible incorrect combo being entered.
2. Verify correct combination is being used.
3. If correct combo is unknown and door is closed, lock must be drilled open.

COMBINATION CHANGING PROCEDURE

1. Open vault door with current combo.
2. LEAVE VAULT DOOR OPEN and lock the door.
3. Enter 6 zero's (000000)
4. Enter current combination.
5. Enter new combination.
6. Enter new combination again to verify
7. Test new combo twice BEFORE closing, test once after closing.

DEFAULT COMBINATION FOR LAGAURD.

1 - 2 - 3 - 4 - 5 - 6

MAS-HAMILTON LOCK FACTORY SETUP

1. Lock is set open at delivery, location will initialize the lock.

INTERMITTENT FAILURE

1. Possible low battery, replace with 9 volt alkaline.

KEYPAD DOES NOT RESPOND

1. Possible dead 9 volt battery. Replace.
2. Possible failed keypad cable or incorrectly installed cable.

ELECTRONIC LOCK CONT'D

**KEYPAD DOES NOT RESPOND, LED
FLASHES EVERY TEN SECONDS.**

1. "Lock Out" mode, incorrect combo was enter 4 times.
Delay period will last for 5 minutes.

MISC

NVRAM CLEAR

1. Hold F6 down
2. Power unit up.
3. Release F6 when "Do you want to clear NVRam?" appears.
4. Select "Yes".
5. Enter current master Password. (Unit will then reset Master Password to default)

NVRAM CLEAR ON AN EPP

1. Unit must be powered down.
2. Turn dip switch #1 to ON.
3. Power unit on, wait for LED #5 to illuminate.
4. Power unit off.
5. Turn dip switch #1 to OFF.
6. Power unit up.

DOWNLOAD MODE

1. Hold F7 down.
2. Power unit up.

DEFAULT PASSWORDS

Master = 555555
Service = 222222
Operator = 111111
RMS = 333333

KEY MANAGEMENT PASSWORDS

000000 and 000000

COMBINED MASTERKEY CHECK SUM IS INCORRECT

1. Verify correct order of key entry with Host.
2. Perform a NVRAM clear on the EPP.

POWER SUPPLY

OUTPUT VOLTAGES

White = 24vdc

Yellow = 12vdc

Red = 5vdc

FUSE

250Volt 6.3amp

POWER REQUIREMENTS

110 TO 230VAC, 50 - 60 Hz

PRINTER

PAPER COMES OUT BLANK

1. Verify paper roll is not installed upside down.
2. Verify thermal print head ribbon cable at printer and Printer PCB is connected.
3. Perform an reset and/or self test.

PAPER JAMS DURING NEW INSTALLATION.

1. Verify shipping tape has been removed from transport.



Error Codes, Descriptions and Corrective Actions

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MISCELLANEOUS ERROR MESSAGES

<u>ERROR CODE</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
20001	No cassette.	<ol style="list-style-type: none">1. Reseat cassette again.2. Check cassette present switch, CS7 (see fig. 1-A).
20002	Low Money	<ol style="list-style-type: none">1. Check cassette total, current # of bills may be zero.2. Check if "Low Currency is Enabled"<ol style="list-style-type: none">A) Check alignment of cassette to LS5 sensor.B) Check functionality of CS5 sensor . (see fig. 1-A)
20003	Reject Box is full	<ol style="list-style-type: none">1. Perform "Cassette Total" after removing money from reject bin.
20004	Vault door is open	<ol style="list-style-type: none">1. Check door switch functionality.2. Check cable connections at door switch and back of CE board.3. Check sensor status in Diagnostics.
20005	CDU setting error	<ol style="list-style-type: none">1. Check CDU information<ol style="list-style-type: none">A) Country, cassette, and shutterB) Check battery back up on CDU board2. Check MINI-CD type<ol style="list-style-type: none">A) 47 = 2100TB) 80 = 1000 noteC) 81 = 2000 noteD) 41 = Rear loadE) 0 = Drawer type
20010	Receipt paper jam	<ol style="list-style-type: none">1. Inspect printer for jammed paper.2. Check printer sensors for functionality

MISCELLANEOUS ERROR MESSAGES CON'T

<u>ERROR CODE</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
20011	Print head is in up position	<ol style="list-style-type: none">1. Inspect location of print head.2. Check functionality of sensor in Diagnostics.
20012	Paper release lever is in open position	<ol style="list-style-type: none">1. Reseat paper release lever2. Inspect functionality of sensor in Diagnostics.
20013	Receipt paper empty.	<ol style="list-style-type: none">1. Load paper.2. Inspect functionality of sensor in Diagnostics.
20014	Print head overheated.	<ol style="list-style-type: none">1. Inspect print head and ribbon cable.2. Reset unit, if fails, replace printer.
2XX15	Note detected on bill path before CDU initialized.	<ol style="list-style-type: none">1. Inspect CDU for jammed bills2. Inspect functionality of sensors in Diagnostics.3. "XX" refers to sensor location, i.e. 21315 = Sensor CS13T. (see fig. 1-A)
90001	Card read error	<ol style="list-style-type: none">1. Clean card reader with approved card reader cleaner.2. Inspect card reader and read head.3. Look for debris in card path.4. Perform a "Card Scan" test, ISO #2 must retain card information.
B0001	Expanded Flash memory error	<ol style="list-style-type: none">1. Power fail unit.2. Replace CE board.
CANCE	Cancelled transaction	<ol style="list-style-type: none">1. Customer cancelled transaction at surcharge screen.

RECEIPT PRINTER ERROR CODES

<u>ERROR CODE</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
AXXX1	Receipt printer feed lever is in the open position	1. Reset paper feed lever 2. Inspect functionality of sensor in Diagnostics.
AXXX2	Print head over heated	1. Inspect print head and ribbon cable. 2. Reset unit, if fails, replace printer.
A0803	Receipt paper jam	1. Inspect printer for jammed paper. 2. Check printer sensors for functionality
AXXX3	Paper jam during operation	1. Inspect printer for jammed paper. 2. Check printer sensors for functionality 3. Remove jam and reset printer.
AXXX4	Receipt paper empty.	1. Reload paper. 2. Inspect functionality of sensor in Diagnostics.
AXXX5	Receipt paper setting error	1. Black mark on paper roll is detected when unit set to "no black mark". A) Change paper roll type to no black style. 2. Check dip switch settings A) Dipswitch #6 <u>ON</u> = no black mark, <u>OFF</u> = has black mark
AXXX6	Appears while doing the manual self-test	1. After self test, reset unit.

RECEIPT PRINTER ERROR CODES CON'T

<u>ERROR CODE</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
AXXX7	Receipt printer feed lever is in the open position	<ol style="list-style-type: none">1. Reset paper feed lever.2. Inspect functionality of sensor in Diagnostics.
AXXX8	Receipt cutter failed.	<ol style="list-style-type: none">1. Check for paper jam, remove if any found.2. Perform printer test3. Manually turn cutter wheel to check for free movement of cutter.
ADNXX	Comm failure to printer.	<ol style="list-style-type: none">1. Check cable connections to printer board.2. Check LED on printer PCB, transmit and receive LED will flash rapidly.3. Check power at printer PCB.4. Perform a reset and/or self test.

CASH DISPENSING UNIT ERROR CODES

<u>ERROR CODE</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
C001X	CDU Sensor bocked	<ol style="list-style-type: none">1. Usually "COO11", indicates exit blocked.2. Check sensor for functionality, possible customer interference during dispense.
C002X	CDU Sensor blocked	<ol style="list-style-type: none">1. Checked for jammed bills.2. Inspect functionality of sensors in Diagnostics.
C0030	CDU Main motor failure	<ol style="list-style-type: none">1. Check main motor and connections.2. Check timing wheel sensor and connections.
C0031	Gate sensor failed	<ol style="list-style-type: none">1. Gate solenoid blocked before initialization.2. Check cable connections.3. Inspect functionality of sensor in Diagnostics, sensor CS3 (see figure 1-A)
C0032	Gate sensor failed	<ol style="list-style-type: none">1. Gate solenoid did not react during initialization.2. Check cable connections.3. Inspect functionality of sensor in Diagnostics, sensor CS3 (see figure 1-A)
C0034	Double detect failure (Feed module 1)	<ol style="list-style-type: none">1. Check for jammed bills2. Check and/or clean double detect sensor3. Check double detect cable connections.

CASH DISPENSING UNIT ERROR CODES CON'T

<u>ERROR CODE</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
C0035	Double detect failure (Feed module 2)	<ol style="list-style-type: none">1. Check for jammed bills2. Check and/or clean double detect sensor3. Check double detect cable connections.
C0036	CDU Sensor blocked (Before Initialization)	<ol style="list-style-type: none">1. CS13 sensor block, CDU exit sensor (see figure 1-A).2. Checked for jammed bills.3. Inspect functionality of sensors in Diagnostics.
C0037	Double detect failure (During dispense)	<ol style="list-style-type: none">1. Check for jammed bills2. Check and/or clean double detect sensor3. Check double detect cable connections.
C0039	Reject gate operation detected	<ol style="list-style-type: none">1. Check solenoid sensor and cables.
C003A	4 or more bills requested	<ol style="list-style-type: none">1. This happens during dispense test, informational only.
C003B	CDU Sensor blocked	<ol style="list-style-type: none">1. Check for jammed bills.2. Check CS15 sensor (see figure 1-B).3. Inspect functionality of sensors in Diagnostics.
C0040	Cassette removed during dispense	<ol style="list-style-type: none">1. Reset cassette.2. Inspect cassette retaining clip3. Check and/or adjust cassette present switch

CASH DISPENSING UNIT ERROR CODES CON'T

<u>ERROR CODE</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
C0041	Five or more attempts to dispense notes.	<ol style="list-style-type: none">1. Check the quality of the bills2. Shuffle bills in cassette.3. Inspect condition of pick wheels.
C0042	Number of notes picked does not match number notes exited.	<ol style="list-style-type: none">1. Check for jammed bills.2. Check the quality of the bills
C0043	Ten or more bills rejected during transaction	<ol style="list-style-type: none">1. Check the quality of the bills2. Shuffle bills in cassette.3. Double detect may be out of adjustment (Not field adjustable).
C0044	Five consecutive rejects	<ol style="list-style-type: none">1. Check the quality of the bills2. Shuffle bills in cassette.3. Check and/or clean double detect sensor.
C0045	More bills dispensed than requested.	<ol style="list-style-type: none">1. Audit cassette.2. Perform test dispense in diagnostics
C0046	Hardware failure	<ol style="list-style-type: none">1. Check main motor2. Check CDU board.3. Check incoming voltages at the C.E. board.

CASH DISPENSING UNIT ERROR CODES CON'T

<u>ERROR CODE</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
C0047	Cassette 1 misfeed	<ol style="list-style-type: none">1. Check the quality of the bills2. Shuffle bills in cassette.3. Inspect condition of pick wheels.
C0048	Incorrect bill count	<ol style="list-style-type: none">1. Audit cassette.2. Perform test dispense in diagnostics3. Check and/or clean double detect sensor.4. Check functionality of CS2, CS4 and CS13 (see figure 1-B)
C0049	Request to dispense 0 notes	<ol style="list-style-type: none">1. Reset unit retry test.
C004A	Bill jam during dispense	<ol style="list-style-type: none">1. Check the quality of the bills2. Shuffle bills in cassette.3. Check CDU sensors and cable connections.
C004B	Three or more consecutive rejects	<ol style="list-style-type: none">1. Check the quality of the bills2. Shuffle bills in cassette.3. Check and/or clean double detect sensor.
C004C	Number of notes at exit are more than picked.	<ol style="list-style-type: none">1. Check the quality of the bills2. Shuffle bills in cassette.3. Check and clean CS13 (see figure 1-A).

CASH DISPENSING UNIT ERROR CODES CON'T

<u>ERROR CODE</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
C004D	No cassette.	<ol style="list-style-type: none">1. Reseat cassette again.2. Check cassette present switch CS7/17/27 (see figure 1-A).
C004E	Number of bills dispensed does not match # of bills requested.	<ol style="list-style-type: none">1. Check the quality of the bills2. Shuffle bills in cassette.3. Perform test dispense in Diagnostics.
C004F	Number of bills dispensed does not match # of bills reported to CDU.	<ol style="list-style-type: none">1. Audit cassette.2. Perform test dispense in diagnostics
C0050	Power fail during dispense	<ol style="list-style-type: none">1. Audit cassette.2. Perform test dispense in diagnostics3. Check incoming voltages at the C.E. board.4. Perform test dispense in Diagnostics.
C0051	Request to dispense 50 or more notes.	<ol style="list-style-type: none">1. Informational only, not a failure.
C0052	Reject sensor blocked after dispense. (CS1)	<ol style="list-style-type: none">1. Checked for jammed bills.2. Check CDU sensors and cable connections.3. Perform test dispense.

CASH DISPENSING UNIT ERROR CODES CON'T

<u>ERROR CODE</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
C0053	Double Detect failure	<ol style="list-style-type: none">1. Perform test dispense in diagnostics2. Check and/or clean double detect sensor.3. Check CDU sensors and cable connections.
C0054	CDU program error	<ol style="list-style-type: none">1. Corrupt software, replace Dispenser PCB.
C0055	Long note detected at exit sensor	<ol style="list-style-type: none">1. Check the quality of the bills2. Shuffle bills in cassette.3. Check condition of pick wheels.
C0056	Incorrect reject position during dispense.	<ol style="list-style-type: none">1. Check CS3 sensor. (see fig. 1-A)2. Perform test dispense.
C0057	Incorrect cassette info.	<ol style="list-style-type: none">1. Check CDU setup in Device Setup menu.
C0059	Cassette #2 removed prior to dispense	<ol style="list-style-type: none">1. Reseat cassette.2. Inspect cassette retaining clip3. Check and/or adjust cassette present switch
C005A	Cassette #1 removed prior to dispense	<ol style="list-style-type: none">1. Reseat cassette.2. Inspect cassette retaining clip3. Check and/or adjust cassette present switch

CASH DISPENSING UNIT ERROR CODES CON'T

<u>ERROR CODE</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
C005B	Cassette #2 misfeed	<ol style="list-style-type: none">1. Check the quality of the bills2. Shuffle bills in cassette.3. Inspect condition of pick wheels.
C005D	Constant double detect	<ol style="list-style-type: none">1. Check the quality of the bills2. Shuffle bills in cassette.3. Check and/or clean double detect sensor.
C005E	Dispense size command error	<ol style="list-style-type: none">1. Reset unit, perform test dispense.2. Corrupt software, replace Dispenser PCB.
C005F	Dispense Error	<ol style="list-style-type: none">1. Check AP software.2. Download software.
C006X	Low sensor feed module #1	<ol style="list-style-type: none">1. Clean sensors.2. Check sensors for functionality.
C007X	Low sensor feed module #2	<ol style="list-style-type: none">1. Clean sensors.2. Check sensors for functionality.
C0082	Shutter open.	<ol style="list-style-type: none">1. Check functionality of shutter.2. Inspect sensor CS3 and soleniod (see figure 1-B).

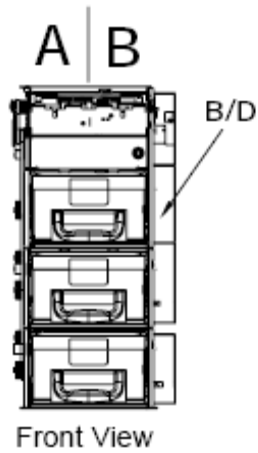
CASH DISPENSING UNIT ERROR CODES CON'T

<u>ERROR CODE</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
C0083	Note stacker blocked.	1. Check for jammed bills. 2. Check CDU sensor CS9 and cable connections.
C0084	Shutter closed.	1. Check functionality of shutter. 2. Inspect sensor CS11 and CS22.
C00AB	Note detected before initializing.	1. Checked for jammed bills. 2. Check CDU sensors and cable connections.
C00C6	Sensor blocked during initializing	1. Check for jammed bills. 2. Check CDU sensor CS13 and cable connections.
C00C7	Bill jam during dispense	1. CS12 sensor blocked.
C00C8	Bill jam during dispense	1. CS14 sensor blocked.
C00C9	Bill jam during dispense	1. CS12 and CS14 sensor blocked. 2. Check cable connection and sensor interface board.
C00D0	Bill jam during dispense	1. Note did not reach CS13 after passing through CS12
C00D1	Bill jam during dispense	1. Note did not reach CS14 after passing through CS12
C00E0	NS2 Sensor Dark	1. Check functionality of sensor NS2.

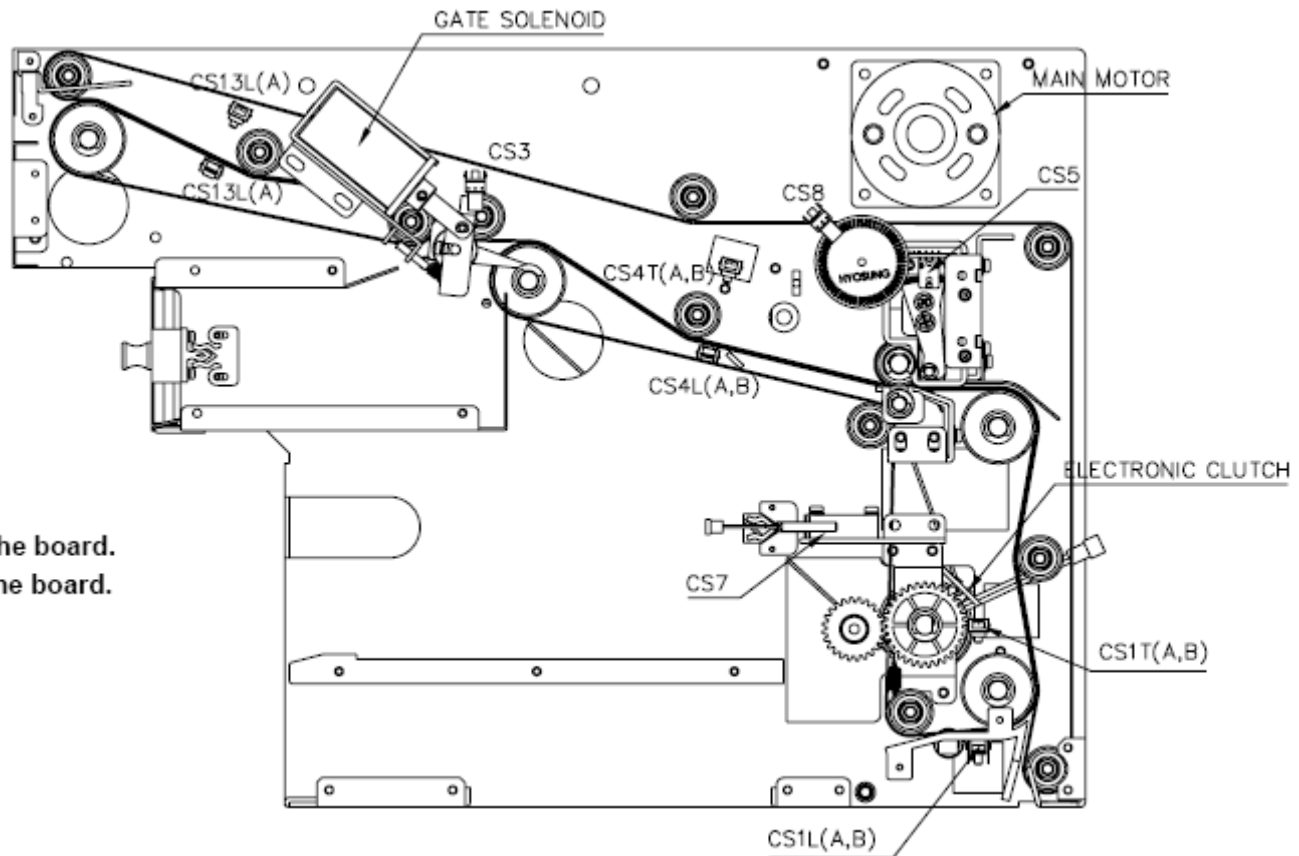
CASH DISPENSING UNIT ERROR CODES CON'T

<u>ERROR CODE</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
C00E1	NS4 Sensor Dark	1. Check functionality of sensor NS4.
CDNXX	No communication to CDU	1. Check communication L.E.D. lights on dispenser PCB. 2. Check VDC going into dispenser board. 3. Check communication connections at the dispenser board and the CE board. 4. Check CDU board for functionality. 5. Check dispenser unit for functionality. 6. If performed an EPP upgrade, verify correct version of firmware

CDU SENSOR LOCATIONS
FRONT LOAD



Front View
Note) A = Sensor far from the board.
B = Sensor close to the board.



CDU SENSOR LOCATIONS

REAR LOAD

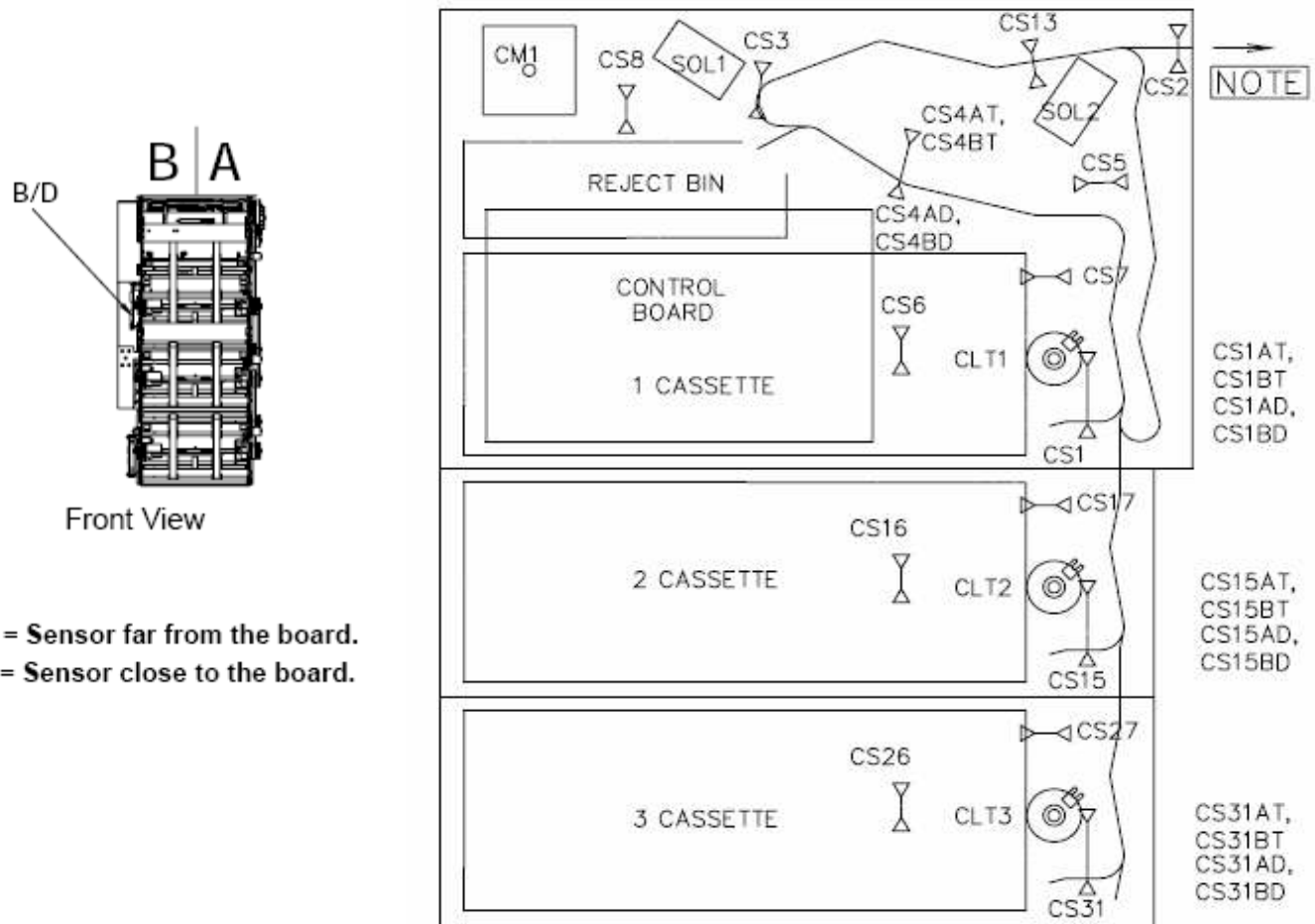
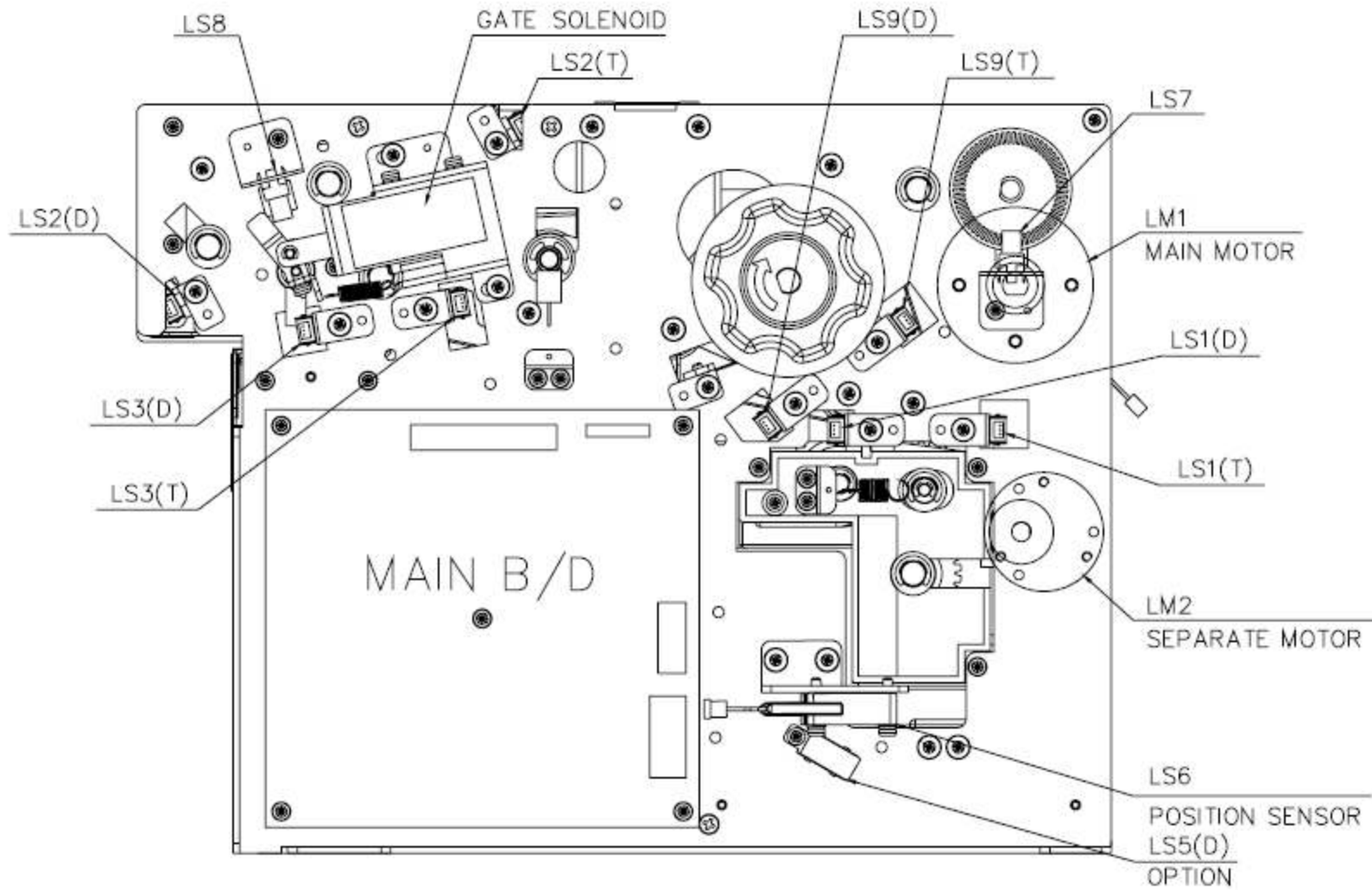


FIGURE 1-B

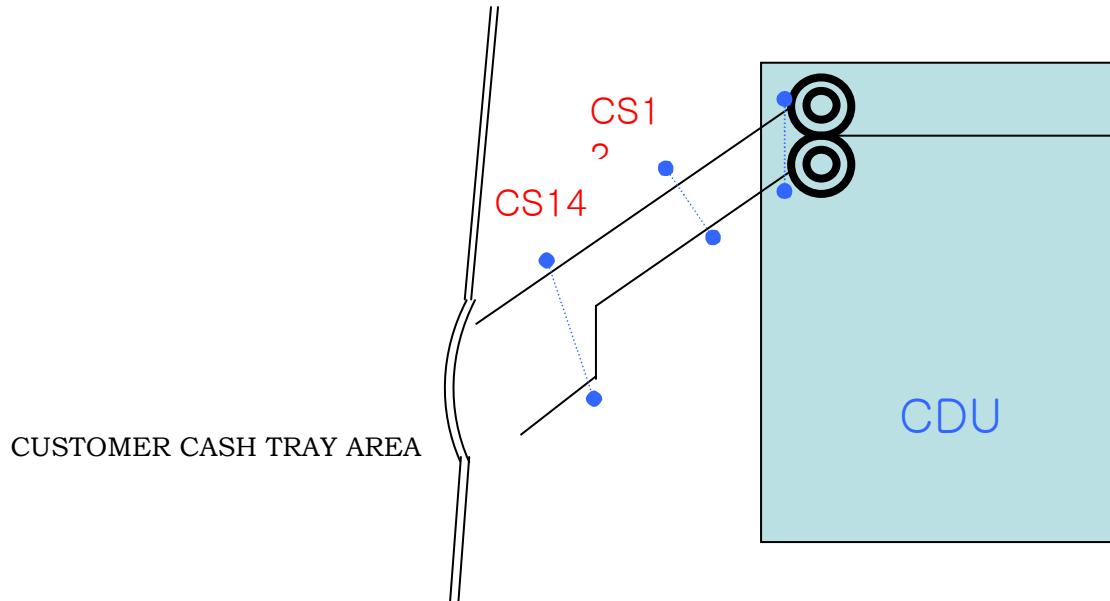
CDU SENSOR LOCATIONS

DRAWER TYPE



CDU SENSOR LOCATIONS

2100T SENSORS



COMMUNICATION ERROR CODES

<u>ERROR CODE</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
D0001	Modem initialation error.	1. Reseat modem board 2. Replace modem board.
D0002	Reversal Transaction failure.	1. Check for CDU error, perform test dispense. (Host denied)
D0003	Pin Error	1. Customer entered incorrect pin. 2. Incorrect master keys 3. Incorrect Key Idex chosen.
D0004	Invalid Pin Error	1. Incorrect pin 2. Incorrect master keys
D0005	Bank Unavailable	1. Contact financial institution.
D0006	Card not supported	1. Contact financial institution.
D0007	Insufficient Funds	1. Contact financial institution.
D0008	Ineligible transaction	1. Contact financial institution.
D0009	Ineligible account	1. Contact financial institution.
D0010	Daily limit exceeded	1. Available limit set by financial institution exceeded.
D0011	Unable to process	1. Finacial institution is not available.

COMMUNICATION ERROR CODES CON'T

<u>ERROR</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
D0012	Amount too large.	1. Amount requested is larger than limit set by financial institution
D0013	Account closed.	1. Contact financial institution.
D0014	Pin tries exceeded.	1. Contact financial institution.
D0015	Unable to process.	1. Contact financial institution.
D0016	Withdrawal limit already reached.	1. Daily amount limit has already been reached with in allowed time.
D0017	Invalid amount.	1. Amount requested does not match bill increment.
D0018	External decline	1. Financial institution does not support the transaction.
D0019	System error	1. Financial institution not performing transactions.
D0020	Contact card issuer	1. Contact financial institution.
D0021	Routing lookup problem	1. Financial institution is not available.
D0022	Unable to process	1. Financial institution is not available.
D0023	Transaction not supported	1. Financial institution does not support the requested transaction.

COMMUNICATION ERROR CODES CON'T

<u>ERROR</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
D0024	Exceeds issuers withdrawal limit.	1. Amount exceeded set limit of financial institution.
D0039	No credit account	1. Contact financial institution.
D0051	Insufficient funds	1. Contact financial institution.
D0052	No checking account	1. Contact financial institution.
D0053	No savings account	1. Contact financial institution.
D0054	Expired card	1. Contact financial institution.
D0055	Incorrect pin	1. Retry pin 2. Contact financial institution.
D0057	Transaction not permitted	1. Contact financial institution.
D0058	Transaction not permitted	1. Contact financial institution.
D0061	Exceeds withdrawal limit	1. Daily amount limit is larger than limit set by financial institution.
D0075	Pin tries exceeded	1. Too many incorrect PIN entries.
D0078	No account	1. Contact financial institution.

COMMUNICATION ERROR CODES CON'T

<u>ERROR</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
D0080	Invalid date	1. ATM date and financial institution date do not match.
D0083	Can not verify pin	1. Contact financial institution.
D0086	Can not verify pin	1. Contact financial institution.
D0091	Bank unavailable	1. Contact financial institution.
D0092	System unavailable	1. Contact financial institution.
D0093	Transaction serial number mis-match	1. Verify sequence number with host
D0094	Record format mis-match	1. Verify proper AP version with host
D0095	Routing identification mis-match	1. Verify routing I.D. in the Host Setup menu.
D0096	Terminal identification mis-match	1. Verify terminal I.D. in the Host Setup menu.
D0097	Response type mis-match (Reversal)	1. Verify successful reversal with Host.

COMMUNICATION ERROR CODES CON'T

<u>ERROR</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
D0098	Response type mis-match (Day Close)	1. Verify successful reversal of Day Close with Host.
D0099	Response type mis-match (Config)	1. Verify successful reversal of Configuration with Host.
D009A	Response type mis-match (Withdrawal, balance, Xfer)	1. Verify successful reversal of transaction with Host.
D009B	STX missing	1. Message string from Host is missing STX.
D009C	ETX missing	1. Message string from Host is missing ETX.
	*** "FS" = Field Separator ***	
D009D	FS missing next to response code	1. Contact host
D009E	FS missing next to retrieval reference number	1. Contact host
D009F	FS missing next to system trace audit number	1. Contact host
D00A0	FS missing next to account balance	1. Contact host

COMMUNICATION ERROR CODES CON'T

<u>ERROR</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
D00A1	FS missing next to available balance	1. Contact host
D00A2	FS missing next to surcharge amount	1. Contact host
D00A3	FS missing next to authorization response text	1. Contact host
D00A4	ETX position is not correct	1. Contact host
D00A5	FS missing next to total cash dispense in the day close message	1. Contact host
D00A6	FS missing next to total non cash dispense in the day close message	1. Contact host
D00A7	FS missing next to total surcharge amount in the day close message	1. Contact host
D00A8	FS missing next to surcharge amount in the config message	1. Contact host
D00A9	ETX missing in the config message	1. Contact host

COMMUNICATION ERROR CODES CON'T

<u>ERROR</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
D00B0	Mismatch Terminal I.D.	1. Contact Host.
D00B1	Mismatch transaction code	1. Contact Host.
D00B2	Mismatch field I.D. code	1. Contact Host.
D00B3	Mismatch incryption pin	1. Contact Host.
D00B4	Mismatch field I.D. code	1. Contact Host.
D00B5	Mismatch sequence number	1. Contact Host.
D00B6	Mismatch response code	1. Contact Host.
D00B7	Mismatch authorization number	1. Contact Host.
D00B8	Mismatch transaction date	1. Contact Host.
D00B9	Mismatch transaction time	1. Contact Host.
D00BA	Mismatch business date	1. Contact Host.
D00BB	Mismatch balance amount	1. Contact Host.
D00BC	Mismatch surcharge amount	1. Contact Host.

COMMUNICATION ERROR CODES CON'T

<u>ERROR</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
D00BD	Mismatch sequence number	1. Contact Host.
D00BE	Mismatch response code	1. Contact Host.
D00BF	Mismatch business date	1. Contact Host.
D0111	Reversal Declined	1. Contact host
D0222	Pin Declined	1. Contact host
D0300	Modem is not responding	1. Check modem board 2. Reseat modem board 3. Check modem initialazation string. A) Older units end with =2, Newer units end with =V22B
D1000	No connection	1. Check phone line 2. Contact host
D1100	ENQ not received	1. ENQ not received from host.
D1200	Transmission error (sending data)	1. Check quality of phone line. 2. Check modem board 3. Reseat modem board

COMMUNICATION ERROR CODES CON'T

<u>ERROR</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
D1300	NAK was sent 3 times (receiving data)	1. Check quality of phone line. 2. Check for poor connection of phone equipment. 3. Contact host 4. Check modem board 5. Reseat modem board
D1500	Dial connection time out	1. Check modem board 2. Reseat modem board 3. Check phone line 4. Check pri and sec host phone numbers 5. Contact host
D170X	No Carrier after connection to Host.	1. Check modem board 2. Reseat modem board 3. Check phone line 4. Contact host
D1701	No carrier	1. Failed to detect carrier
D1702	No carrier	1. Carrier loss before sending data.
D1703/5	No carrier	1. No carrier after modem reset.
D1704	No carrier	1. No carrier detected.
D1706	No carrier	1. Carrier loss while waiting for host.

COMMUNICATION ERROR CODES CON'T

<u>ERROR</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
D1800	No dial tone	<ol style="list-style-type: none">1. Check phone line2. Check modem board3. Reseat modem board
D1900	No answer	<ol style="list-style-type: none">1. Check modem board2. Reseat modem board3. Check primary and secondary phone number.4. Contact host
D2000	Line busy	<ol style="list-style-type: none">1. Check phone line, possibly shared with other equipment or people2. Check modem board3. Reseat modem board
D3200	Dial connect time out (60 seconds)	<ol style="list-style-type: none">1. Check modem board2. Reseat modem board3. Check phone line4. Contact host
D2100	Response time-out	<ol style="list-style-type: none">1. Check modem board2. Reseat modem board3. Check phone line
D2200	EOT not received	<ol style="list-style-type: none">1. Contact host

RMS ERROR MESSAGES

<u>ERROR</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
E0001	RMS port failure	<ol style="list-style-type: none">1. Check RMS related settings.2. Check phone line.3. Check RMS computer4. Check modem
E0002	RMS response time-out	<ol style="list-style-type: none">1. Check RMS related settings.2. Check phone line.3. Check RMS computer4. Check modem
E0003	RMS modem failure	<ol style="list-style-type: none">1. Check RMS related settings.2. Check phone line.3. Check RMS computer4. Check modem
E0004	RMS no dial tone	<ol style="list-style-type: none">1. Check RMS related settings.2. Check phone line.3. Check RMS computer4. Check modem
NHB09	Password/Terminal I.D. not matching.	<ol style="list-style-type: none">1. Terminal I.D. and/or password does match with RMS computer.

CONFIGURATION ERROR MESSAGES

<u>ERROR</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
F0001	Number of bills not set	1. Set the number of bills in the Settlement menu.
F0002	Surcharge Owner not set	1. Set the Surcharge Owner in the Surcharge Mode menu.
F0003	Surcharge Amount not set	1. Set the Surcharge Amount in the Surcharge Mode menu.
F0004	Refresh timer not set	1. Set the Refresh timer in the Advertisement menu.
F0005	Advertisement text is not set	1. Set the Advertisement text in the Advertisement Enable menu.
F0006	Dispense limit setting error	1. Verify the setting with the Host, set the dispense limit
F0007	Note type setting error	1. Verify the setting with the Host, set the Note type
F0008	Fast cash setting error	1. Verify the setting with the Host, set the Fast cash in the Transaction Setup menu.
F0009	Mastwer Key Index invalid	1. Set Master Key Index in the Key Management menu.
F000A	Master key empty	1. Enter master keys in the Key Management menu.
F000B	Host phone # not set	1. Set the Host Phone number in the Host Setup menu.
F000C	Error retry timer not set	1. Set retry timer.
F000D	RMS password not set	1. Set RMS password in the Host Setup menu under Remote Monitor.

CONFIGURATION ERROR MESSAGES CON" T

<u>ERROR</u>	<u>DESCRIPTION</u>	<u>CORRECTIVE ACTION</u>
F000E	RMS phone # not set	1. Set RMS phone number in the Host Setup menu under Remote Monitor.
F000F	Terminal number not set	1. Set terminal number in the Host Setup menu.
F0010	Routing I.D. not set	1. Set the routing I.D. in the Host Setup menu.
F0011	Master Key serial # not set	1. Set the Master Key serial number in the Key Management menu.
F0012	Non-cash type text not set	1. Set the Non-cash type.
F0014	NVRAM failure	1. Check battery and battery connection. 2. Check main board 3. Perform an NVRAM clear.

MCU (CARD READER) ERROR MESSAGES CON" T

ERROR DESCRIPTION

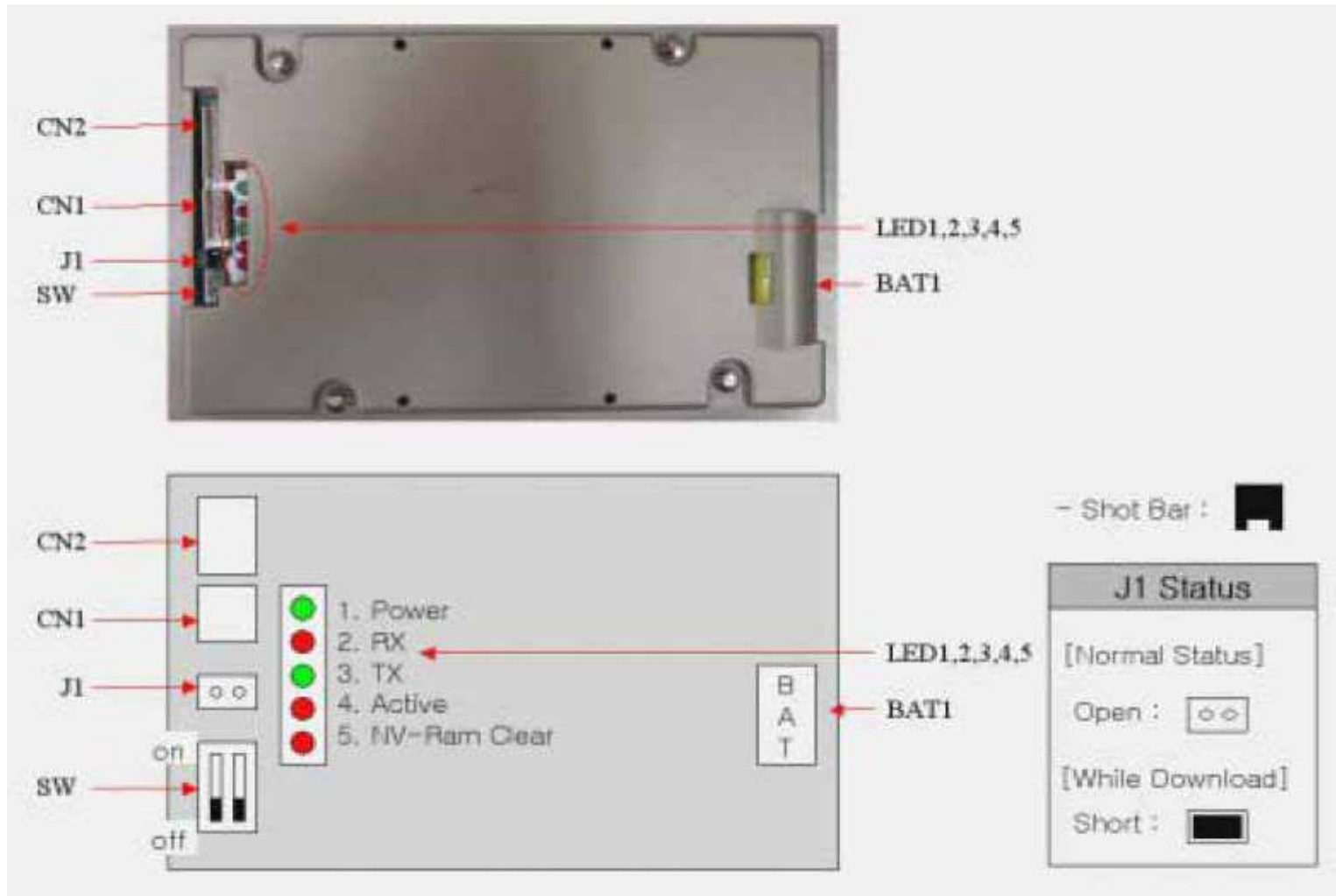
IDNOX MCR connection failure

CORRECTIVE ACTION

1. Check cable connections at MCR and main board.
2. Check communication LED at MCU
3. Check for 12vdc at card reader connection.

ILLUSTRATIONS

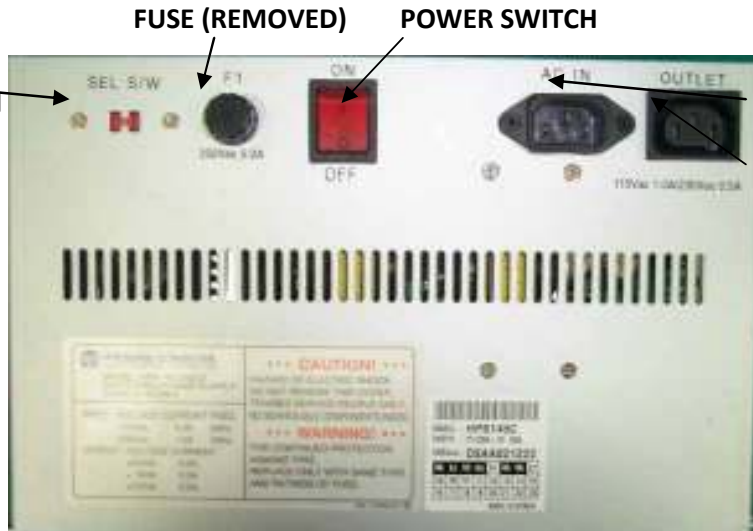
EPP KEYPAD



ILLUSTRATIONS

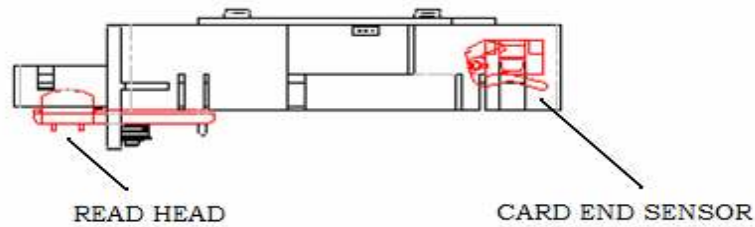
POWER SUPPLY

Power Supply
110VAC and
240 VAC Selector AC IN



A/C IN

A/C OUT (TOPPER ONLY)



MCU CARD READER

ILLUSTRATIONS

