**NCR 56XX ATM Device Status**

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**This guide is effective for NCR ATM models 5674, 5675, 5684, 5685 and 5688**

**running NDC+ Direct Connect software up to and including release 2.01.01**

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**Table of Contents**

Device Status Value Definitions

Device Code A = Time of Day Clock

Device Code B = Power Failure

Device Code D = Card Reader / Writer

Device Code E = Currency Dispenser

Device Code F = Depository

Device Code G = Receipt Printer

Device Code H = Journal Printer

Device Code L = Encryptor

Device Code P = Sensors

Command Rejects

**Three attachments are included at the back of this publication. *These attachments are taken directly from NCR 56XX ATM Operations Manuals and the Currency Cassette Manual*. The information in these sections detail the Replenishment Procedures for all devices on both front and rear access 56XX ATMs.**

# Device Status Value Definitions

The following pages provide a detailed description of the individual status messages that are produced for the various devices in the ATM. *(Only the status messages that pertain to the 56XX model ATMs as equipped for Mellon Bank are referenced.)* Refer to the guide on the previous page for the definition of the fields that comprise the individual status codes. The fields within each device are color coded in accordance with the format described on the reference guide.

***Please note that many of the error conditions will not display during normal operation. These error conditions will only be produced as a result of diagnostic testing.***

## Device Code A = Time of Day Clock

**Format =** \*tttt\*m\***A**\*a

**Field Specifics** \*tttt\*m\***A**\***a**

**a = Device Status**

**Possible Values for "a":**

**1** = Clock reset but running

**2** = Clock Stopped

**Example: \*1234\*1\*A\*2**

**Interpretation:** During transaction number **"1234"**, the ATM generated its own unsolicited status

message (**1**) from the *Time of Day Clock* (**A**) indicating that the *clock has stopped (****2****)*.

## Device Code B = Power Failure

**Format =** \*tttt\*m\***B**\*aaaa

**Field Specifics** \*tttt\*m\***B**\***aaaa**

**aaaa = Configuration ID**

(Network Services assigned terminal group number)

**Example: \*1234\*1\*B\*0011**

**Interpretation:** After transaction number **"1234"**, the ATM generated its own unsolicited status message (**1**) after encountering a Power Failure (**B**). The message also indicates that the ATM was loaded with terminal group **"0011"** as assigned by Network Services.

## Device Code D = Card Reader / Writer

**Format =** \*tttt\*m\***D**\*a, M-bb, R-c

**Field Specifics** \*tttt\*m\*D\***a**, M-bb, R-c

**a = Transaction / Device Status**

**Possible Values for "a":**

**0** ‑ Minor problem, refer to "**bb**" and "**c**" data status and supply changes

**1** ‑ Cardholder did not take his card within the allotted time and it was captured or jammed

**2** ‑ Eject failure, card captured or jammed

**3** ‑ Failed to write on Track 3 of the card

**4** ‑ Invalid Track 3 data sent from network

**Field Specifics** \*tttt\*m\*D\*a, M-**bb**, R-c

**bb = Module Status**

**Possible Values for "bb":**

**00** ‑ Operation successful

**01** ‑ Blank track

**02** ‑ Track not supported

**03** ‑ Read error

**04** ‑ Write error

**05** ‑ No card in reader at start of command

**06** ‑ Card removed by customer during capture

**07** ‑ Shutter jammed open

**08** ‑ Shutter switch failure detected

**09** ‑ Error recovery successful

**10** ‑ Shutter jammed closed

**11** ‑ Card jammed (not during capture)

**12** ‑ Card captured after unsuccessful eject operation

**13** ‑ Possible customer tampering, card stuck in card reader throat

**14** ‑ Too many consecutive read errors or blank tracks

**15** ‑ Too many consecutive write errors

**16** ‑ Too many consecutive card jams

**17** ‑ Too many consecutive shutter jammed closed status's

**18** ‑ Card jam during capture

**19** ‑ Too many consecutive invalid cards

**20** ‑ Device still inoperable

**21** ‑ No card entered during cleaning cycle test

**22** ‑ Speed out of specification > +3%

**23** ‑ Speed within +3%

**24** ‑ Speed within +/- 1%

**25** ‑ Speed within ‑3%

**26** ‑ Speed out of specification < ‑3%

**27** - Invalid card detected (diagnostic only)

**37** - Card Return on Power Failure option not supported

**38** - Tamper Indicating Card Capture bin full

**39** - Tamper Indicating Card Capture bin shutter mechanism failure

**40** - Tamper Indicating Card Capture bin removed or not configured

**41** - Card Return on Power Failure option failed

**146** - SDC link failure

**Field Specifics** \*tttt\*m\*D\*a, M-bb, R-**c**

**c = Supply Status**

**Possible Values for "c":**

**0** ‑ No new state

**1** ‑ Card capture bin is *not* overfilled

**4** - Card capture bin is overfilled

**Example: \*1234\*2\*D\*2, M-11, R-1**

**Interpretation:** During transaction number **"1234"**, the ATM generated a solicited status message (**2**) resulting from the network telling the ATM to return the card to the customer. The card reader (**D**) failed in its attempt to eject the card (**2**) and the card became jammed in the card reader (**M-11**). In addition to this information, the status indicated that the card capture bin is *not* overfilled (**R-1**).

## Device Code E = Currency Dispenser

**Format =** \*tttt\*m\***E**\*aaaaaaaaa, M-bb, R-ccccc

**Field Specifics** \*tttt\*m\*E\***aaaaaaaaa**, M-bb, R-ccccc

**aaaaaaaaa = Transaction / Device Status**

(This field describes what happened during the transaction using the first digit of the field and how many bills were dispensed from each currency cassette using the remaining 8 digits of the field.)

**Possible values for each digit of "a aa aa aa aa":**

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**Field Specifics** \*tttt\*m\*E\*aaaaaaaaa, **M-bb**, R-ccccc

**bb = Module Status**

**Possible values for "bb":**

**00** - No error

**01** ‑ Pick requested from cassette that is not installed

**02** ‑ Too many bills being rejected

**03** ‑ Pick failure

**04** ‑ Pick failure from cassette low or out of currency

**05** ‑ Sensor failure or currency jammed

**06** - Divert gate failure

**07** ‑ Reject bin not present

**08** ‑ Reject bin overfilled or sensor blocked

**09** ‑ Communications failure at dispenser

**10** ‑ Operation not attempted due to previous failure

**11** ‑ Bills still in transport, operation not attempted

**12** ‑ Presenter mechanism failed or jammed

**13** ‑ Exit shutter jammed open

**14** ‑ Exit shutter jammed closed

**15** ‑ Bills observed passing overfill sensor

**16** ‑ Main transport timing disk or main AC motor failed

**17** ‑ Exit sensor failed to clear or is blocked

**18** ‑ Currency jam in presenter transport or sensor failed

**19** ‑ Exit sensor blocked (bills may be in exit slot)

**20** ‑ Dispenser not configured

**21** ‑ Security violation

**22** ‑ Security inhibition

**25** ‑ Flex disk authorization not required

**28** ‑ An area of NVRAM cannot be accessed (SOH cannot be updated)

**29** ‑ Presenter transport timing disk or motor failure

**30** ‑ Presenter transport sensors blocked or failed

**32** ‑ Heartbeat on execution processor failed (80652)

**33** ‑ Communication failure on the I2C bus (80852)

**34** ‑ A present notes operation has been attempted without any notes being stacked or a retract operation has been attempted without notes having been presented

**35** ‑ Operation incomplete due to power disconnection resulting from the interlock on the ATM access door being tripped

**36** ‑ Pick valve test not attempted because cassettes were installed

**37** ‑ Tamper Indicating service switched ON

**38** ‑ Tamper Indicating service switched OFF

**39** ‑ LVDT or associated circuitry malfunctioning

**40** ‑ Note parameters not configured because of an NVRAM corruption or it is the first operation since initial power-up

**41** ‑ An attempt was made to pick from a cassette which has been disabled for in-service replenishment

**146**‑ SDC link failure

**Field Specifics** \*tttt\*m\*E\*aaaaaaaaa, M-bb, **R-ccccc**

**ccccc = Supply Status**

(This 5-digit supply field describes the state of the currency reject bin and each of the currency cassettes.)

**Description and possible values for "ccccc":**

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**Example: \*1234\*2\*E\*101010000,M-04,R-13100**

(In this example, the customer requested $50 but only received $30)

**Interpretation:** As a result of transaction **1234** where the host directed the ATM (**2**) to dispense currency (in this case 2 - $20 bills and 1 - $10 bill), the currency dispenser (**E**) encountered a pick failure while attempting to get bills from a cassette that was low on currency (**M-04**). The transaction status (**101010000**) indicates that less bills were dispensed than were requested (digit 1 = **1**), one bill was dispensed from currency cassette 1 (digits 2&3 = **01**) and one bill from currency cassette 2 (digits 3 & 4 = **01**). The supply status (**R-13100**)determines that the reject bin is *not* full (digit 1 = **1**), currency cassette 1 is *out* of bills (digit 2 = **3**) and currency cassette 2 has a sufficient bill supply (digit 3 = **1**).

## Device Code F = Depository

**Format =** \*tttt\*m\***F**\*a, M-bb, R-c

**Field Specifics** \*tttt\*m\*F\***a**, M-bb, R-c

**a = Transaction / Device Status**

**Possible values for "a":**

**0** ‑ Successful operation, but an exception condition was encountered

**1** ‑ Customer did not insert the envelope in the allotted time

**2** ‑ Failure to enable mechanism for a deposit

**3** ‑ Deposit failed, customer has access to the envelope

**4** ‑ Deposit failed, envelope is in the ATM and the customer does not have access to it

**Field Specifics** \*tttt\*m\*F\*a, **M-bb**, R-c

**bb = Module Status**

**Possible values for "bb":**

**0** ‑ No error

**1** ‑ Transport jam

**2** ‑ Transport jammed and shutter jammed open

**3** ‑ Transport jammed and shutter jammed closed

**4** ‑ Shutter jammed open

**5** ‑ Shutter jammed closed

**6** ‑ Transport sensor failed

**7** ‑ Depository communication failure

**11**‑ Depository bin overfill

**13** ‑ Timing disk failure

**14** ‑ A failure has occurred in the control electronics

**15** ‑ Transport motor failure

**50** ‑ Anti fishing sensor not returned

**51** ‑ Lost depository print characters due to transport speed (incomplete envelope printing)

**52** ‑ Printhead removed

**55** ‑ Interlock failed

**146** ‑ SDC link failure

**Field Specifics** \*tttt\*m\*F\*a, M-bb, **R-c**

**c = Supply Status**

**Possible values for "c":**

**0** - No envelope deposited

**1** - The depository bin is *not* overfilled

**4** - The depository bin is experiencing an overfill condition

**Example:** **\*1234\*2\*F\*4, M-01, R-1**

**Interpretation:** In transaction (**1234**), the host directed the ATM (**2**)to accept a deposit (**F**), but the deposit failed and the customer does not have access to the envelope (**4**) due to a transport jam (**M-01**). The supply status indicates that the depository bin is *not* overfilled (**R-1**).

## Device Code G = Receipt Printer

**Format =** \*tttt\*m\***G**\*a, M-bb, R-cccc

**Field Specifics** \*tttt\*m\*G\***a**, M-bb, R-cccc

**a = Transaction / Device Status**

**Possible values for "a":**

**0** - Successful print

**1** - Print not successfully completed

**2** - Device not configured

**Field Specifics** \*tttt\*m\*G\*a, **M-bb**, R-cccc

**bb** **= Module Status**

**Possible values for "bb":**

**00** ‑ No error

**01** ‑ Head jam/Knife jam

**03** ‑ Black mark error

**05** ‑ Paper out

**07** ‑ Paper not loaded or paper jam before transport

**08** ‑ Communications failure to the printer

**09** ‑ Printer open

**10** ‑ Ribbon needs to be replaced soon

**11** ‑ Printhead needs to be replaced soon

**12** - Knife needs to be replaced soon

**13** ‑ Ribbon needs to be replaced now

**14** ‑ Printhead needs to be replaced now

**15** ‑ Sideways communications error

**16** ‑ Eject jam

**146**‑ SDC link failure

**Field Specifics** \*tttt\*m\*G\*a, M-bb, **R-cccc**

**cccc = Supply Status**

(This 4-digit field contains multiple values for each character)

**Description and possible values for "cccc":**



**Example:** **\*1234\*1\*G\*1, M-05, R-3111**

**Interpretation:** In transaction (**1234**), the ATM attempted (**1**) to print a customer receipt on the receipt printer (**G**) but was unsuccessful in its attempt (**1**) as the printer was out of paper (**M-05**). The supply status (**R-3111**) echoed the fact that paper was out (digit 1) and also that the ribbon (digit 2), printhead (digit 3) and the paper cutting knife (digit 4) were all OK.

## Device Code H = Journal Printer

**Format =** \*tttt\*m\***H**\*a, M-bb, R-ccc

**Field Specifics** \*tttt\*m\*H\***a**, M-bb, R-ccc

**a = Transaction / Device Status**

**Possible values for "a":**

**0** - Successful print

**1** - Print not successfully completed

**2** - Device not configured

**Field Specifics** \*tttt\*m\*G\*a, **M-bb**, R-ccc

**bb** **= Module Status**

**Possible values for "bb":**

**00** ‑ No error

**01** ‑ Head jam

**05** ‑ Paper out

**07** ‑ Paper not loaded

**08** ‑ Communications failure to the printer

**09** ‑ Printer open

**10** ‑ Ribbon needs to be replaced soon

**11** ‑ Printhead needs to be replaced soon

**13** ‑ Ribbon needs to be replaced now

**14** ‑ Printhead needs to be replaced now

**146**‑ SDC link failure

**Field Specifics** \*tttt\*m\*G\*a, M-bb, **R-ccc**

**ccc** **= Supply Status**

(This 3-digit field contains multiple values for each character)

**Description and possible values for "ccc":**



**Example:** **\*1234\*1\*H\*1, M-05, R-311**

**Interpretation:** In transaction (**1234**), the ATM attempted (**1**) to print information on the journal printer (**H**) but was unsuccessful in its attempt (**1**) as the printer was out of paper (**M-05**). The supply status (**R-311**) echoed the fact that paper was out (digit 1) and also that both the ribbon (digit 2) and the printhead (digit 3) were both OK.

## Device Code L = Encryptor

**Format =** \*tttt\*m\***L**\*a, M-bb

**Field Specifics** \*tttt\*m\*L\***a**, M-bb

**a = Transaction / Device Status**

**Possible values for "a":**

**1** ‑ Encryptor error

**2** ‑ Encryptor not configured

**bb** **= Module Status**

**Possible values for "bb":**

**00** ‑ No error detected

**01** ‑ Parity error

**02** ‑ Hardware error

**03** ‑ Invalid command, not all key spaces are closed

**04** ‑ Invalid command, no key space open

**05** ‑ Invalid command as keyboard is currently enabled

**07** ‑ Communications failure

**08** ‑ Security module reset was successful

**11** ‑ Invalid command data

**12** ‑ Data mismatch

**13** ‑ No key loaded in Data Encryption Unit prior to encryption or decryption request

**12** ‑ Data mismatch

**70** ‑ PIN verification failed

**74** ‑ Invalid PIN encrypt type function (encryption mode changed)

**75** ‑ Key integrity error

**76** ‑ Invalid PIN, no encryption allowed (truncated PIN does not contain decimal digits)

**97** ‑ Timeout error

**98** ‑ Communications error

**146** ‑ SDC link failure

***\*\*Note - several additional Module Status error values exist in the range 15 - 66 that apply to programmer level individuals and would be recorded on the network BLF listing\*\****

**Example:** **\*1234\*1\*L\*1, M-04**

**Interpretation:** In transaction (**1234**), the ATM attempted (**1**) to encrypt (**L**) data (the customer PIN) but an encryptor error occurred (**1**) as a result of the DES key not being installed (**M-04**). This would generally require a technician to come to the machine to re-enter the DES keys.

## Device Code P = Sensors

**Format =** \*tttt\*m\***P**\*aaaaaaaaaaaaa

**Field Specifics** \*tttt\*m\*L\***aaaaaaaaaaaaa**

**aaaaaaaaaaaaa = Device Status**

(There are distinct values for each of the 13 characters represented in the Device Status codes referencing Sensors. The following descriptions and values define each character beginning with the first, character 1.)

**Description and possible values for each character of "aaaaaaaaaaaaa":**

**Character 1**

**1** ‑ Tamper Indicating sensor change \*

**2** ‑ Mode switch change (the Mode Switch is the Normal/Supervisor switch on the operator panel) \*\*

**3** ‑ Alarm state change \*

**Character 2**

**0** ‑ Mode switch moved to NORMAL

**1** ‑ Mode switch moved to SUPERVISOR

**Character 3**

**0** ‑ Vibration and/or heat sensor inactive

**1** ‑ Vibration and/or heat sensor active

**Character 4**

**0** ‑ Door contact sensor inactive

**1** ‑ Door contact sensor active

**Character 5**

**0** ‑ Silent signal sensor inactive

**1** ‑ Silent signal sensor active

**Character 6**

**0** ‑ Electronics enclosure sensor inactive

**1** ‑ Electronics enclosure sensor active

**Character 7**

**0** ‑ Deposit bin in

**1** ‑ Deposit bin out

**Character 8**

**0** ‑ Card capture bin out

**1** ‑ Card capture bin in

**Character 9**

**0** ‑ Currency reject bin out

**1** ‑ Currency reject bin in

\* If **Character 1** = "**1**" (Tamper Indicating sensor change) or "**3**" (Alarm state change), then **Character 2** is not applicable and **Characters 3 thru 13** provide details describing the Tamper Indicating or Alarm status.

\*\* If **Character 1** = "**2**" (Mode switch change), then **Character 2** provides the details concerning the mode switch and **Characters 3 thru 13** will be omitted.

**Character 10**

**0** ‑ Currency cassette in position 1 out (top)

**1** ‑ Currency cassette in position 1 in

**Character 11**

**0** ‑ Currency cassette in position 2 out (second)

**1** ‑ Currency cassette in position 2 in

**Character 12**

**0** ‑ Currency cassette in position 3 out (third)

**1** ‑ Currency cassette in position 3 in

**Character 13**

**0** ‑ Currency cassette in position 4 out (bottom)

**1** ‑ Currency cassette in position 4 in

***Please note that many of these Sensor Status changes are also logged on the journal tape in plain English.***

**Example:** **\*1234\*1\*P\*20**

**Interpretation:**  Following transaction (**1234**), the ATM (**1**), as a result of user intervention, underwent a change in the position of the mode switch (**20**). Character 1 of the module status (**2**0) indicated the *mode switch change* while Character 2 of the module status (2**0**) indicated that the *mode switch was switched to the Normal position.*  In this example, the text **"SUPERVISOR MODE EXIT"** would also have printed on the journal tape.

## Command Rejects

These error messages print on the journal tape in response to a message that was sent by the network to the ATM in some form that was not acceptable by the ATM. It can generally be assumed that the transaction attempted did not successfully complete. ***Further information as to the cause and resolution of this problem will require investigation by you Network Services Customer Service Representative.***

**Format =** \*tttt\*2\***CNN**

**Field Specifics** \*tttt\*2\***CNN**

**C = Specific Command Reject Category**

**Possible Values for "C":**

**1** - Message Authentication Code

**2** - Time Variant Number Failure

**3** - Security Terminal Number Mismatch

**A** - Message Format Error

**B** - Field Value Error

**C** - Illegal Message Type for Current Mode

**D** - Hardware Failure

**E** - Not Supported

Values for **NN** carry different meanings depending on the value for **C**. The following sections describe the different meanings for **NN** under the various values for **C**.

If the value for **C** = **"A"** (message format error), then the possible values and descriptions for **NN** are:

**01** - Message length error (

**02** - Field separator missing or unexpectedly found

**03** - Transaction reply message has too many print groups

If the value for **C** = **"B"** (field value error), then the possible values and descriptions for **NN** are:

**01** - Illegal message class (outside range of 1 -4)

**02** - Illegal message subclass or identifier on a configuration load message with class 3

**03** - Illegal load key message identifier

**04** - Illegal terminal command code

**05** - Illegal terminal command modifier

**06** - Illegal function ID in transaction reply command

**07** - Data field contains non-numeric data

**08** - Numeric value out of range (Fit value greater than 255)

**09** - Invalid message coordination number

**10** - Illegal FIT number (not in range 000 - 254)

**11** - Too many bills in transaction reply command (total exceeds 40 bill maximum)

If the value for **C** = **"C"** (illegal message type for current mode), then the possible values and descriptions for **NN** are:

**01** - Message type only accepted while ATM is in "in-service" mode

**02** - Message can not be accepted while diagnostics are in progress

**03** - Message can not be accepted while in "out-of-service or supply" mode

**04** - Message can not be accepted while in "in-service" mode

**05** - Message not allowed while terminal configured for NCR status mode

**06** - Message not allowed while terminal configured for Diebold status mode

If the value for **C** = **"D"** (hardware failure), then the possible values and descriptions for **NN** are:

**01** - Encryption failure during key change message

**02** - Time of day clock failure during date/time set command or invalid data sent

If the value for **C** = **"E"** (not supported), then the possible values and descriptions for **NN** are:

**01** - Command not supported by software version currently in use

**02** - Device required to accommodate the command is not configured

**Example:** **\*1234\*2\*D01**

**Interpretation:** After transaction **1234**, the ATM network (**2**) attempted to send a new encryption key (used to conceal a customer's PIN when sent for authorization) to the ATM but a hardware error was detected (**D**) that indicated that an encryption failure occurred during the key change message (**01**).