

U.S. Caller ID Reporting Product Update

PN S0000206, Rev. C

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This update documents the enhancements to your Multi-Tech modem provided with U.S. Caller ID reporting support. With U.S. Caller ID reporting (also called "Calling Number Delivery" or "CND") support in your MultiModem, you can enable/disable and define Caller ID services, where available. Caller ID is a phone service that allows residential and small business customers to receive a calling party's directory number and then date- and time-stamp the information, all during the first 4-second silent interval in the Ringing cycle.

Caller ID lets you economically find out who is calling you, screen unwanted calls, and keep track of calls that come in when you are not available. To use Caller ID, you must also subscribe to the applicable telco service. For more information on initiating Caller ID services, call your local phone company.

CND information can be used to display calling party information, display a "look-up" table, and for Number Blocking, Call Logs, and/or various database applications.

Caller ID is implemented with one of three AT commands as defined in the following sections:

1. **+VCID=*n*** for MT3334xx and MT5634xx modems
2. ***C*n*** for MT2834xx modems
3. **#CID= *n*** for MT5600xx modems

Command: +VCID=*n* <Enter>

Values: *n*=0, 1, 2

Default: 0

Result Codes: OK if the command is accepted; ERROR if the parameter value is out of range.

Description: The Caller ID +VCID=*n* command lets you control the reporting of and presentation of Caller ID services data. The Caller ID services are currently supported in the U.S. and Canada, in one of two data formats: either SDM (Single Data Message) or MDM (Multiple Data Message) format. The MultiModem can detect and report any U.S. Caller ID data after the first ring. The minimum Caller ID data reported includes the date and time of the call, and an associated caller code (i.e., the caller's telephone number).

+VCID=0 Caller ID reporting is disabled.

+VCID=1 Caller ID is enabled with formatted data presented to the PC. The data includes the date, time, caller code (telephone number), and subscriber's name.

+VCID=2 Caller ID is enabled with unformatted data presented to the PC. The data includes Message Type byte, Message Length, date, time, caller code (telephone number), subscriber's name, and Message Checksum byte. The reported data is displayed in ASCII hex as printable numbers.

If an internal checksum error is detected in the Caller ID packet, the modem presents no Caller ID data in either SDM or MDM mode. If the modem receives multiple Caller ID packets, the modem presents a single correct packet to the PC. If the modem has received the line seizure (leading U characters) information at least once, but has never presented a correct packet, the modem returns the following message in place of report data: <ERRM>< + ><ICLID_202><CR>.

If your modem won't work with U.S. Caller ID reporting:

- Make sure that you have U.S. Caller ID service from your telephone company.
- Check your initialization string, and if necessary change it to set the modem to answer after the second ring (S0=2). Caller ID information is transmitted between the first and second rings, so if autoanswer is turned off (S0=0) or if the modem is set to answer after only one ring (S0=1), the modem will not receive Caller ID information.

Command: *C <Enter>

Values: 0, 1, 2

Default: 0 (feature disabled)

Result Codes: OK if the command is accepted; ERROR if the parameter value is out of range.

Description: Caller ID Reporting The Call Traffic Window will display the phone number and name of an individual that dials in on a phone line that supports Caller ID. The call must not be answered before the second ring to receive this information. This feature requires a modem hardware upgrade, Caller ID phone lines, and a firmware level greater than 8.07a or 2.07a. The Caller ID firmware is disabled by default, and is enabled with the *C command:

*C0 Caller ID Detection disabled.

*C1 Caller ID Detection enabled with no display.

*C2 Caller ID Reporting enabled with display.

*C3 Caller ID Reporting enabled with display of the last CID information available.

The information reported with Caller ID is explained below.

<u>Information</u>	<u>Description</u>
DATE	The date of the call, in the format MMDD, where MM is the month (01-12) and DD is the day (01-31). The DATE is reported in ASCII decimal, with a leading ASCII 0 added to numbers less than 10.
TIME	The time of the call, in the format HHMM, where HH is the hour (00-23) and MM is the minute (00-59). The TIME is reported in ASCII decimal, with a leading ASCII 0 added to numbers less than 10.
NMBR	The telephone number of the caller, where NMBR = <Number> or P or O (ASCII 4F h). The P indicates that the calling number data is not available because the calling party has Private service. The O indicates that the calling number data is not available because the caller is outside of the called number's area code.
NAME	The subscription listing name (i.e., the name of the subscriber).
MESG	A descriptive message not included in the Date/Time/ Number/Name data. The MESG is displayed in printable ASCII numbers, and is available only in Multiple Data Message (MDM) format.

An example of a formatted Caller ID display (+VCID1 command) is shown below.

```

RING

DATE=0428
TIME=1405
NMBR=405-555-1456
NAME=SMITH, BOB
MESG=051292567891

RING
RING

```

In the example below, the modem does not recognize one of the data items, and the report is in unformatted form. An example of a Caller ID display in unformatted form (+VCID2 command) is shown below.

```

RING

MESG=0412303332313134303539313435353132333435

RING

RING

```

Command:	#CID= n Caller ID
Values:	<i>n</i> = 0, 1, or 2
Default:	0
Description:	Enables or disables Caller ID recognition and reporting.
#CID=0	Disables Caller ID.
#CID=1	Enables formatted Caller ID reporting of ICLID SDM (Single Data Message) and MDM (Multiple Data Message) packets.
#CID=2	Enables unformatted Caller ID reporting of any ICLID packet received after the first <i>RING</i> cycle, including SDM, MDM, or call waiting packets.
#CID?	Retrieves the current Caller ID mode from the modem.
#CID=?	Returns the mode capabilities of the modem in a list with each element separated by commas.

The front panel LCD display can also be used for enabling, disabling and setting Caller ID parameters.

Glossary of Terms

Defined below are several terms related to the Caller ID feature. Note that features and definitions may vary between Caller ID suppliers.

ANI (Automated Number Identification): a feature of ISDN and SS7 that is similar to Caller ID. ANI is delivered from the long distance phone company over an ISDN PRI circuit (or dedicated single line) before the first ring. ANI is not currently available in every state.

Blocking: a service that prevents the caller's name and phone number from being displayed. Blocking can be done on a Per Call or Per Line basis. The message "Private" or "Anonymous" is displayed in place of the Caller ID information.

Calling Line ID: a service, typically local, that allows you to receive the phone number of the caller as the call comes in. It is similar to the service that ANI provides for long distance calls.

Calling Number Delivery (CND): a service also known as Caller ID.

Calling Number Display: an LED or LCD display that attaches to a phone set to show the telephone number of the caller (and in some cases, the caller's name) when the phone rings.

Calling Party Identification: another name for ANI.

Call Rejection: a service that lets you list phone numbers of unwanted callers. A recorded message tells the caller that calls from their number are not accepted.

Call Trace: the feature that lets you track an obscene or harassing call. You hang up after the offending call, pick up the receiver, then dial *57. A recording confirms that your call has been traced.

CLASS (Custom Local Area Signaling Services): a Bellcore service that allows information about who is calling (and/or the caller's phone number) to be passed to the phone between the first and second rings which signal the incoming call. Some of the Bellcore CLASS services include Automatic Callback, Calling Number Delivery (CND), Customer Oriented Trace, Distinctive Ringing/Call Waiting, etc.

One Call Unblock: You can remove the Blocking feature on a per-call basis by dialing *82 (or 1182 on a rotary phone).

Per Call Blocking: a feature that lets you call a number without giving your name and number. You dial *67 (or 1167 on a rotary phone) before dialing the called number. On that call, instead of your name and number, the Caller ID user sees the message "Private" or "Anonymous".

Questions and Answers

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1. Q: In what applications is Caller ID being used?

A: Sales Support, Tech Support, etc. (wherever security and/or a record of all callers is essential).

2. Q: How is Caller ID being used ?

A: data conversion to speed-dialing directories; for checking databases, then viewing a popup screen with customer/client data as the call is received; screening in billing and collections, home business, etc. (wherever users want to know who is on the line before transferring a call). Caller ID is useful in routing incoming calls more accurately and efficiently; it can also provide hard copy data for reports and data base output.

3. Q: Is data displayed on a PC or on a "Caller ID display unit" ?

A: a PC.

4. Q: Can Caller ID data be recorded (e.g., on a recording machine) ?

A: No.

5. Q: Can Caller ID data be saved as a part of a voice file ?

A: No.

6. Q: What happens if caller has "blocking" or uses *67 ?

A: CND is disabled.

7. Q: What other codes besides *67 are available ?

A: *82 for One Call Unblock, *77 for Call Blocking/Anonymous Call Rejection, *87 to turn Anonymous Call Rejection (*77) off, and *57 for Call Trace.

8. Q: If a call is transferred, is Caller ID data transferred with the call ?

A: No.

9. Q: Where can I get more information ?

A: Contact your local phone company; Qwest (formerly US West), for example, has a brochure called "Caller ID: Facts from US West". Some third-party links may also prove helpful:

- Caller ID Links: Web Links to Internet Sites Related to Caller ID - <http://www.markwelch.com/callerid.htm>
- The Tummy.com cid page - <http://www.tummy.com/cid/>
- The AnswerSleuth Caller ID page - http://www.answersleuth.com/new3/caller_id_display.12.shtml