

connection to settle before the communication process begins.

#### 4.1.1.2 Composition

The handshake tone sequence shall consist of:

- A burst of 1400 Hz.  $\pm 3\%$  tone with a duration of 100 msec.  $\pm 5\%$
- A pause of 100 msec.  $\pm 5\%$
- A burst of 2300 Hz.  $\pm 3\%$  tone with a duration of 100 msec.  $\pm 5\%$

**Note:** Transmitters shall accept a frequency error of at least  $\pm 5\%$  to ensure back-compatibility with older receivers.

#### 4.1.2 Message Blocks

A Message Block is sent by the TRANSMITTER for each message in the transmitter's message queue. Each message block contains sufficient information to report an event in the system.

##### 4.1.2.1 Placement

The first message block is sent beginning 250 msec. (250 min., 300 max.) after the end of either the Handshake Tone sequence or after a Kisoﬀ (Acknowledgement) tone. The delay is timed from the end of the tone.

##### 4.1.2.2 Message Composition

The form of the message is:

ACCT MT QXYZ GG CCC

where:

ACCT = 4 Digit Account number (0-9, B-F)

MT = Message Type. This 2-digit sequence is used to identify the Contact ID message to the receiver. It may be transmitted as either 18 (preferred) or 98 (optional). New receiver implementations shall accept either a

18 or a 98. Note that some older receivers may not accept 98 .

Q = Event qualifier, which gives specific event information:

- 1 = New Event or Opening
- 3 = New Restore or Closing
- 6 = Previously reported condition still present (Status report)

XYZ = Event code (3 Hex digits 0-9,B-F)

GG = Group or Partition number (2 Hex digits 0-9, B-F). Use 00 to indicate that no specific group or partition information applies.

CCC = Zone number (Event reports) or User # (Open / Close reports ) (3 Hex digits 0-9,B-F ). Use 000 to indicate that no specific zone or user information applies

S = 1 Digit Hex checksum calculated such that:

$(\text{Sum of all message digits} + S) \text{ MOD } 15 = 0$

**Note:** A '0' shall be transmitted as a 10 and valued as a 10 for checksum purposes even though it is displayed and printed as '0'. It uses the same tone pair as the '0' (OPER) key on a standard telephone.

##### 4.1.2.3 Data Tones

The message is sent using standard DTMF tones.

The timing of the tones shall be as follows:

Burst ON time - 50 msec. (50 min., 60 max.)  
Burst OFF time- 50 msec. (50 min., 60 max.)

The details of the tones are contained in the following table.