

Telecommunication Peripheral Products

Application Note

1600 Series

Central Station Monitoring

August 1, 1997

Using the 1600 Series Phones with Central Station Equipment



Note: This document must be used in combination with the **1600 Series Technical Practice** (Fax Back Document 215).

The **1600** series of emergency telephones have the capability to communicate directly with central station receivers. In this mode, the emergency phone will automatically relay vital information to compatible equipment at central alarm monitoring stations.

Once the receiver has issued the proper acknowledgement tone, the "CALL CONNECTED" indicator on the front of the emergency phone will light, and the **1600** phone will then switch to two-way voice.

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Programming

The standard **1600** emergency phone is factory programmed to communicate using the Ademco "Contact I.D.", "Ademco High Speed", "DTMF 4+1 Express", or the "DTMF 4+2 Express" formats. All formats use the programming memory location #20 to store the account code and alarm details.

A. Programming Features

1. Accessing the programming mode

Before programming, you must access the programming mode (see **1600 Series Technical Practice**, section **A**).

2. Enabling/Disabling Central Station Mode

The **1600** series emergency phone can be placed in the "central station mode" by entering a $\times 1$ while programming. To cancel the "central station mode," enter $\times 0$ (see **1600 Series Technical Practice**, section **F**).

3. Ring Delay

When the **1600** series emergency phone is in the central station mode, it is best to have the ring delay set to a minimum of three. Some receivers send a long tone after answering the line that sounds like a ring back, and if the **1600** is set to a ring delay of two, the phone will disconnect (see **1600 Series Technical Practice**, section **G**, setting **D**).

4. Primary and Secondary Speed Dial Numbers

The **1600** series phone can be programmed to dial a central station receiver only, or dial a voice number first, and if no answer, then dial the central station receiver. When calling the first number (memory position 00), the phone stays in "two-way talk mode" allowing two-way conversation. When calling the second number (memory position 01), the phone is in a "listen only mode" in order to interpret the hand shake signal of the receiver (see **1600 Series Technical Practice**, sections **C** and **D**).

Mode	Memory Location	
Two-Way Voice	00	
Central Station	01	

Note: If only a central station is to be dialed, the central station phone number must be preprogrammed in memory location 01 and memory location 00 must be cleared.

B. Central Station Formats

The following examples explain the receiver formats and how to properly program memory location #20. Each format starts with a four digit account code. This is the code that is assigned by your central station for billing purposes. You must access the programming mode before programming these features (see "1600 Series" Technical Practice, section A).

Important: If a number is shown, you must use that number. If an "X" is shown, you are free to use any appropriate number.

1. Ademco Contact ID Format

This DTMF format consists of a four digit account code, two digit message type, and a nine digit data field. XXXX 18 112000 XXX #20 — Memory location L Set to any number to identify phone Account code -Message type -

2. Ademco High Speed Format

This DTMF format consists of a four digit account code, eight zone codes and one alarm type digit. With this format you can identify up to eight different phones by using a zone per phone. A "5" in a zone position means no alarm. The following example shows an alarm from the third phone.

XXXX 55155555 7 #20 — Memory location └── Normal alarm — New event Idle zone -

3. 4+1 Express Format

This DTMF format consists of a four digit account code, two digit message type, and a single digit event code.



4. 4+2 Express Format

This DTMF format consists of a four digit account code, two digit message type, and a two digit event code.

	XXXX	27	XX	#20	
Account code			- 1		Memory location
Message type -			L		— Event code

Operation

After the button on the 1600 series phone has been pressed the 1600 series phone will begin to dial. If a voice number is programmed in memory location 00, this number will be dialed first. Upon detecting a busy signal or after a preprogrammed ring delay the 1600 series phone will hang-up and dial the central station phone number stored in memory location 01. When the central station receiver answers, it will send a handshake tone to the 1600 phone. Upon detecting the handshake tone, the 1600 series phone will begin downloading the information stored in memory location 20.

Once the **1600** series emergency phone has sent the information stored in memory location 20, it waits for a "kiss-off" tone from the central station. When the "kiss-off" tone is received, the emergency phone turns on the call connected LED and goes into the "two-way talk mode."

Note: The central station should have a "talk-over" feature that will allow a two way conversation at this time.

If the central station answers the call and does not send a "kiss-off", the next number will be dialed (if programmed). In either single number or two number programming, the phone will keep dialing until a call is completed.

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