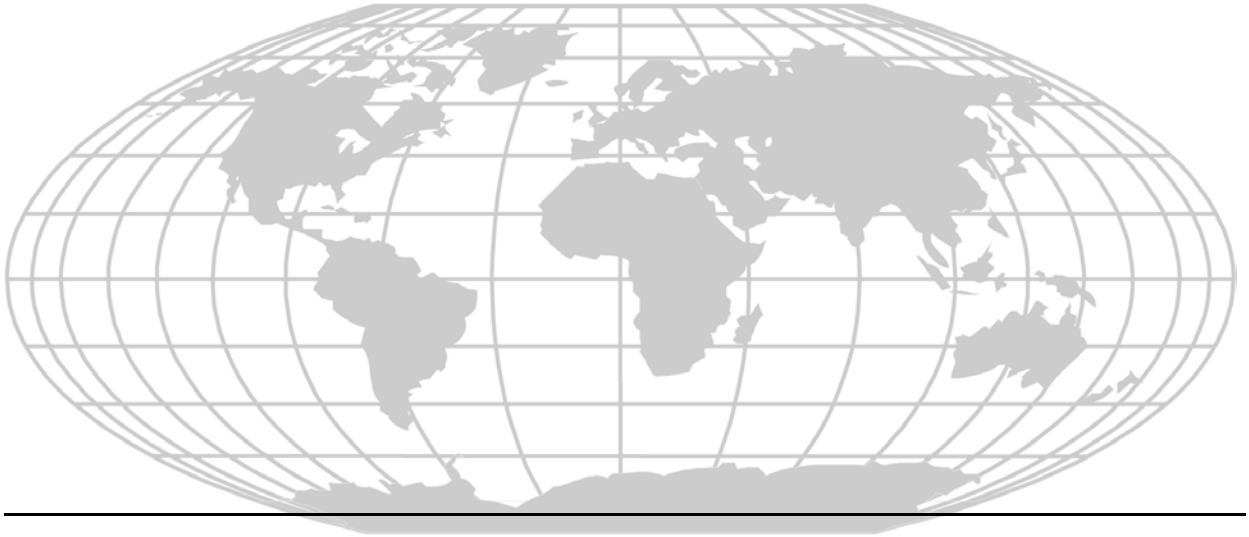
FIRE·LITE® ALARMS
by Honeywell

PN: 51899:B1 ECN 05-044



Digital Alarm Communicator/Transmitter
DACT-UD Module

Document	#51899	B1
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Fire Alarm System Limitations

While a fire alarm system may lower insurance rates, it is not a substitute for fire insurance!

An automatic fire alarm system–typically made up of smoke detectors, heat detectors, manual pull stations, audible warning devices, and a fire alarm control with remote notification capability–can provide early warning of a developing fire. Such a system, however, does not assure protection against property damage or loss of life resulting from a fire.

The Manufacturer recommends that smoke and/or heat detectors be located throughout a protected premise following the recommendations of the current edition of the National Fire Protection Association Standard 72 (NFPA 72), manufacturer's recommendations, State and local codes, and the recommendations contained in the Guide for Proper Use of System Smoke Detectors, which is made available at no charge to all installing dealers. A study by the Federal Emergency Management Agency (an agency of the United States government) indicated that smoke detectors may not go off in as many as 35% of all fires. While fire alarm systems are designed to provide early warning against fire, they do not guarantee warning or protection against fire. A fire alarm system may not provide timely or adequate warning, or simply may not function, for a variety of reasons:

Smoke detectors may not sense fire where smoke cannot reach the detectors such as in chimneys, in or behind walls, on roofs, or on the other side of closed doors. Smoke detectors also may not sense a fire on another level or floor of a building. A second-floor detector, for example, may not sense a first-floor or basement fire.

Particles of combustion or "smoke" from a developing fire may not reach the sensing chambers of smoke detectors because:

- Barriers such as closed or partially closed doors, walls, or chimneys may inhibit particle or smoke flow.
- Smoke particles may become "cold," stratify, and not reach the ceiling or upper walls where detectors are located.
- Smoke particles may be blown away from detectors by air outlets.
- Smoke particles may be drawn into air returns before reaching the detector.

The amount of "smoke" present may be insufficient to alarm smoke detectors. Smoke detectors are designed to alarm at various levels of smoke density. If such density levels are not created by a developing fire at the location of detectors, the detectors will not go into alarm.

Smoke detectors, even when working properly, have sensing limitations. Detectors that have photoelectronic sensing chambers tend to detect smoldering fires better than flaming fires, which have little visible smoke. Detectors that have ionizing-type sensing chambers tend to detect fast-flaming fires better than smoldering fires. Because fires develop in different ways and are often unpredictable in their growth, neither type of detector is necessarily best and a given type of detector may not provide adequate warning of a fire.

Smoke detectors cannot be expected to provide adequate warning of fires caused by arson, children playing with matches (especially in bedrooms), smoking in bed, and violent explosions (caused by escaping gas, improper storage of flammable materials, etc.).

Heat detectors do not sense particles of combustion and alarm only when heat on their sensors increases at a predetermined rate or reaches a predetermined level. Rate-of-rise heat detectors may be subject to reduced sensitivity over time. For this reason, the rate-of-rise feature of each detector should be tested at least once per year by a qualified fire protection specialist. *Heat detectors are designed to protect property, not life.*

IMPORTANT! ***Smoke detectors*** *must be installed in the same room as the control panel and in rooms used by the system for the connection of alarm transmission wiring, communications, signaling, and/or power.* If detectors are not so located, a developing fire may damage the alarm system, crippling its ability to report a fire.

Audible warning devices such as bells may not alert people if these devices are located on the other side of closed or partly open doors or are located on another floor of a building. Any warning device may fail to alert people with a disability or those who have recently consumed drugs, alcohol or medication. Please note that:

- Strobes can, under certain circumstances, cause seizures in people with conditions such as epilepsy.
- Studies have shown that certain people, even when they hear a fire alarm signal, do not respond or comprehend the meaning of the signal. It is the property owner's responsibility to conduct fire drills and other training exercise to make people aware of fire alarm signals and instruct them on the proper reaction to alarm signals.
- In rare instances, the sounding of a warning device can cause temporary or permanent hearing loss.

A fire alarm system will not operate without any electrical power. If AC power fails, the system will operate from standby batteries only for a specified time and only if the batteries have been properly maintained and replaced regularly.

Equipment used in the system may not be technically compatible with the control. It is essential to use only equipment listed for service with your control panel.

Telephone lines needed to transmit alarm signals from a premise to a central monitoring station may be out of service or temporarily disabled. For added protection against telephone line failure, backup radio transmission systems are recommended.

The most common cause of fire alarm malfunction is inadequate maintenance. To keep the entire fire alarm system in excellent working order, ongoing maintenance is required per the manufacturer's recommendations, and UL and NFPA standards. At a minimum, the requirements of NFPA 72 shall be followed. Environments with large amounts of dust, dirt or high air velocity require more frequent maintenance. A maintenance agreement should be arranged through the local manufacturer's representative. Maintenance should be scheduled monthly or as required by National and/or local fire codes and should be performed by authorized professional fire alarm installers only. Adequate written records of all inspections should be kept.

Installation Precautions

Adherence to the following will aid in problem-free installation with long-term reliability:

WARNING - *Several different sources of power can be connected to the fire alarm control panel.* Disconnect all sources of power before servicing. Control unit and associated equipment may be damaged by removing and/or inserting cards, modules, or interconnecting cables while the unit is energized. Do not attempt to install, service, or operate this unit until this manual is read and understood.

CAUTION - *System Reacceptance Test after Software Changes.* To ensure proper system operation, this product must be tested in accordance with NFPA 72 after any programming operation or change in site-specific software. Reacceptance testing is required after any change, addition or deletion of system components, or after any modification, repair or adjustment to system hardware or wiring.

All components, circuits, system operations, or software functions known to be affected by a change must be 100% tested. In addition, to ensure that other operations are not inadvertently affected, at least 10% of initiating devices that are not directly affected by the change, up to a maximum of 50 devices, must also be tested and proper system operation verified.

This system meets NFPA requirements for indoor dry operation at 0-49° C/32-120° F and at a relative humidity of 93 ±2% RH (non-condensing) at 32 ±2° C/90 ±3° F. However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and all peripherals be installed in an environment with a nominal room temperature of 15-27° C/60-80° F.

Verify that wire sizes are adequate for all initiating and indicating device loops. Most devices cannot tolerate more than a 10% I.R. drop from the specified device voltage.

Like all solid state electronic devices, this system may operate erratically or can be damaged when subjected to lightning-induced transients. Although no system is completely immune from lightning transients and interferences, proper grounding will reduce susceptibility. *Overhead or outside aerial wiring is not recommended, due to an increased susceptibility to nearby lightning strikes.* Consult with the Technical Services Department if any problems are anticipated or encountered.

Disconnect AC power and batteries prior to removing or inserting circuit boards. Failure to do so can damage circuits.

Remove all electronic assemblies prior to any drilling, filing, reaming, or punching of the enclosure. When possible, make all cable entries from the sides or rear. Before making modifications, verify that they will not interfere with battery, transformer, and printed circuit board location.

Do not tighten screw terminals more than 9 in-lbs. Over-tightening may damage threads, resulting in reduced terminal contact pressure and difficulty with screw terminal removal.

Though designed to last many years, system components can fail at any time. This system contains static-sensitive components. Always ground yourself with a proper wrist strap before handling any circuits so that static charges are removed from the body. Use static-suppressive packaging to protect electronic assemblies removed from the unit.

Follow the instructions in the installation, operating, and programming manuals. These instructions must be followed to avoid damage to the control panel and associated equipment. FACP operation and reliability depend upon proper installation by authorized personnel.

FCC Warning

WARNING: This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for class A computing device pursuant to Subpart B of Part 15 of FCC Rules, which is designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user will be required to correct the interference at his own expense.

Canadian Requirements

This digital apparatus does not exceed the Class A limits for radiation noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le present appareil numerique n'emet pas de bruits radioelectriques depassant les limites applicables aux appareils numeriques de la classe A prescrites dans le Reglement sur le brouillage radioelectrique edicte par le ministere des Communications du Canada.

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Notes

It is imperative that the installer understand the requirements of the Authority Having Jurisdiction (AHJ) and be familiar with the standards set forth by the following regulatory agencies:

- Underwriters Laboratories Standards
- NFPA 72 National Fire Alarm Code

Before proceeding, the installer should be familiar with the following documents.

NFPA Standards

NFPA 72 National Fire Alarm Code
- Central Station Fire Alarm Systems (Automatic, Manual and Waterflow) Protected Premises Unit
- Local (Automatic, Manual, Waterflow and Sprinkler Supervisory) Fire Alarm Systems
- Proprietary Fire Alarm Systems (Protected Premises Unit)

NFPA 70 National Electrical Code

Underwriters Laboratories Documents:
UL 38 Manually Actuated Signaling Boxes
UL 217 Smoke Detectors, Single and Multiple Station
UL 228 Door Closers–Holders for Fire Protective Signaling Systems
UL 268 Smoke Detectors for Fire Protective Signaling Systems
UL 268A Smoke Detectors for Duct Applications
UL 346 Waterflow Indicators for Fire Protective Signaling Systems
UL 464 Audible Signaling Appliances
UL 521 Heat Detectors for Fire Protective Signaling Systems
UL 864 Standard for Control Units for Fire Protective Signaling Systems
UL 1481 Power Supplies for Fire Protective Signaling Systems
UL 1610 Central Station Burglar Alarm Units
UL 1638 Visual Signaling Appliances
UL 1971 Signaling Devices for Hearing Impaired

Other:

EIA-232E Serial Interface Standard
EIA-485 Serial Interface Standard
NEC Article 250 Grounding
NEC Article 300 Wiring Methods
NEC Article 760 Fire Protective Signaling Systems
Applicable Local and State Building Codes
Requirements of the Local Authority Having Jurisdiction (LAHJ)

Fire-Lite Documents:

Fire-Lite Device Compatibility	Document #15384
MS-9600 Manual	Document #51335

SECTION 1 Product Description

The DACT-UD Digital Alarm Communicator/Transmitter transmits system status to UL listed Central Station Receivers via the public switched telephone network. The communicator mounts to the FACP main circuit board inside the panel cabinet and is capable of reporting 636 points or 99 zones.

1.1 Product Features

- Dual telephone lines
- Dual telephone line voltage detect
- Mounts inside the control panel
- Extensive transient protection
- Individual LEDs for
  - ✓ Kissoff - green LED
  - ✓ Primary Phone Line Active - red LED
  - ✓ Secondary Phone Line Active - red LED
- Communicates vital system status including:
  - ✓ Independent zone/point alarm
  - ✓ Independent zone/point trouble
  - ✓ Independent zone/point supervisory
  - ✓ AC power loss
  - ✓ Low battery
  - ✓ Earth fault
  - ✓ System off normal
  - ✓ 12 or 24 hour test signal
  - ✓ Abnormal test signal per UL requirements
  - ✓ Annunciation at control panel of DACT troubles including loss of phone lines, communication failure with either Central Station, total communication failure

1.2 Compatible Panel

The DACT-UD has been designed to be compatible with the following control panel:

- MS-9600

1.3 Specifications

DC Power - J1 Connector
Current draw in standby and alarm:

- ❒ Standby = 0.100 amps
- ❒ Alarm = 0.132 amps (communicating)

1.4 Digital Communicator

Two modular phone jacks allow easy connection to telephone lines. Modular jacks are labeled PH1 and PH2 for the Primary and Secondary phone lines. Telephone line Primary Active and Secondary Active red LEDs are provided as well as a green Kissoff LED> The digital communicator provides the following functions:

- Line Seizure - takes control of phone lines disconnecting any premises phones
- Off/On Hook - performs on and off-hook status to the phone lines
- Listen for dial tone - 440 hertz tone typical in most networks
- Dialing Central Station(s) number - default is Touch-Tone®, programmable to rotary
- For tone burst or touchtone type formats: determine proper ‘Acknowledge’ and ‘Kissoff’ tone(s) - the frequency and time duration of the tone(s) varies with the transmission format. The control panel will adjust accordingly
- Communicate in the following formats:
  - ✓ 12 Tone Burst Types: 20 pps
    (3+1, 4+1, 4+2, 3+1 Exp., 4+1 Exp., 4+2 Exp.)
  - ✓ 3 Touchtone Types:
    4+1 Ademco Express
    4+2 Ademco Express
    Ademco Contact ID

1.5 Telephone Requirements and Warnings

1.5.1 Telephone Circuitry - PH1 & PH2

Ringer Equivalence Number (REN) = 0.0B
AC Impedance: 10.0 Mega Ohm
Complies with FCC Part 68
Mates with RJ31X Male Connector
Supervision Threshold: less than 4.0 volts for 2 minutes

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.

1.5.2 Digital Communicator

Before connecting the control panel to the public switched telephone network, the installation of two RJ31X jacks is necessary. If trouble is experienced with this equipment, for repair or warranty information, please contact:

Manufacturer: Fire•Lite Alarms, Inc.
One Fire-Lite Place
Northford, CT 06472
(203) 484-7161

Product Model Number: **DACT-UD**
FCC Registration Number: **US:1W6AL00BDACTUD**
Ringer Equivalence: **0.0B**

*Note: This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the DACT-UD module IC is a label that contains, among other information, a product identifier in the format **US:AAAEQ##TXXXX**. If requested, this number must be provided to the telephone company.*

Alarm dialing equipment must be able to seize the telephone line and place a call in an emergency situation. It must be able to do this even if other equipment (telephone, answering system, computer modem, etc.) already has the telephone line in use. To do so, alarm dialing equipment must be connected to a properly installed RJ31X jack that is electrically in series with and ahead of all other equipment attached to the same telephone line. If there are any questions concerning these instructions, consult the telephone company or a qualified installer about installing the RJ31X jack and alarm dialing equipment. Refer to Figure 2.6 on page 16 for an illustration of the proper installation of this equipment.

1.5.3 Telephone Company Rights and Warnings

The telephone company, under certain circumstances, may temporarily discontinue services and/or make changes in its facilities, services, equipment or procedures which may affect the operation of this control panel. However, the telephone company is required to give advance notice of such changes or interruptions.

If the control panel causes harm to the telephone network, the telephone company reserves the right to temporarili discontinue service. Advance notification will be provided except in cases when advance notice is not practical. In such cases, notification will be provided as soon as possible. The opportunity will be given to correct any problems and to file a complaint with the FCC if you believe it is necessary.

DO NOT CONNECT THIS PRODUCT TO COIN TELEPHONE, GROUND START, OR PARTY LINE SERVICES.

When the control panel activates, premise phones will be disconnected.

Two separate phone lines are required. Do not connect both telephone interfaces to the same telephone line.

The control panel must be connected to the public switched telephone network upstream (as first device) of any private telephone system at the protected premises.

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by ACTA. This equipment is designed to be connected to the telephone network or premises wiring using a compliant RJ31X male modular plug and compatible modular jack that is also compliant.

Notes

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SECTION 2 DACT-UD Installation

2.1 Installation in MS-9600 FACP

WARNING! Disconnect all sources of power (AC and DC) before installing or removing any modules or wiring.

2.1.1 MS-9600 Keypad/Display Removal

DACT-UD (Digital Alarm Communicator/Transmitter) Module installation requires the removal of the MS-9600 Keypad/Display unit from the main circuit board. To remove the Keypad/Display, insert a Phillips screwdriver into each of the three holes located in the flexible covering of the Keypad/Display and loosen the three mounting screws. Note that it is not necessary to disconnect the cables between the Keypad/Display and the main circuit board. Carefully lift the Keypad/Display and rest the unit at the bottom of the main circuit board.

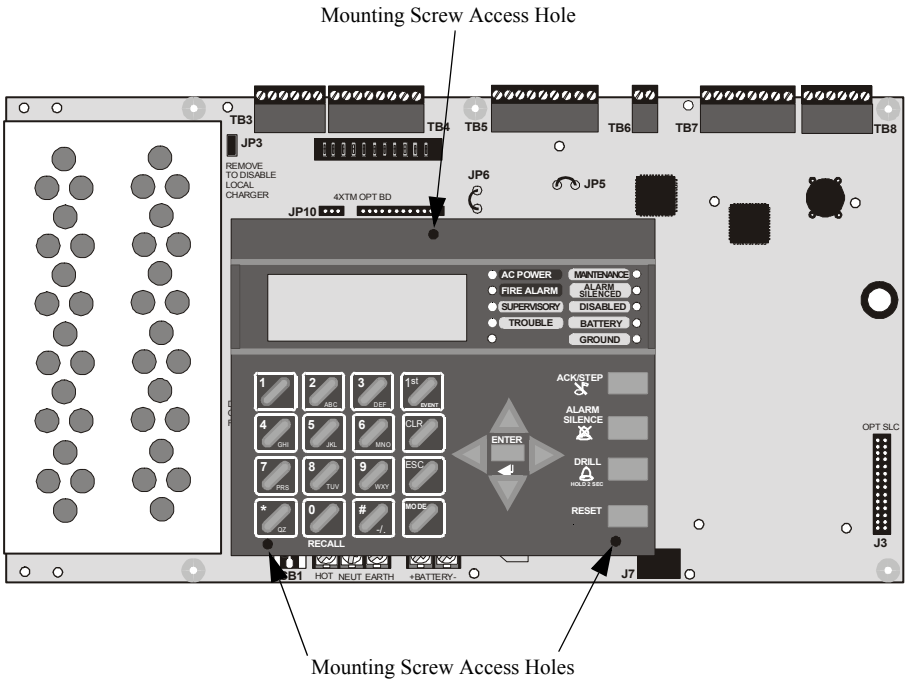


Figure 2.1 Keypad/Display Removal

2.1.2 DACT-UD Installation

WARNING! *Disconnect all sources of power (AC and DC) before installing or removing any modules or wiring.*

The DACT-UD module plugs into connector J2 on the MS-9600 main circuit board.

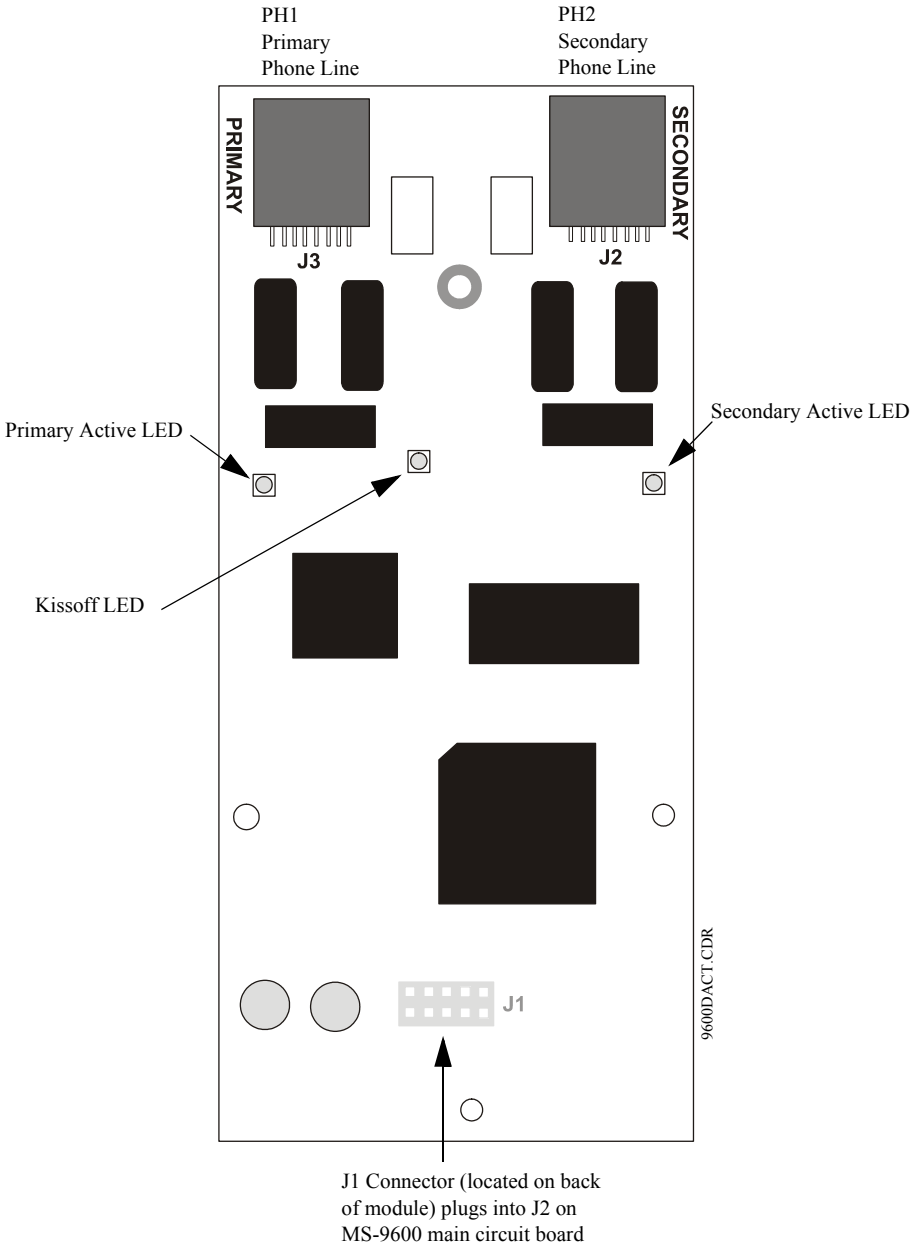


Figure 2.2 DACT-UD Module

The following steps must be followed when installing the DACT module:

1. Remove all power (AC and DC) from the FACP before proceeding with the installation
2. Remove the Keypad/Display from the main circuit board as described in the beginning of this section

3. Insert the supplied plastic snap-in standoff into mounting hole located at the bottom center of the DACT-UD module (insert into back of board)
4. Carefully plug connector J1 on the back of the DACT-UD module into connector J2 on the MS-9600 main circuit board, being careful not to bend any pins and at the same time, insert plastic snap-in standoff into mounting hole in main board
5. Align the mounting holes in the DACT module with the premounted standoffs on the FACP main circuit board

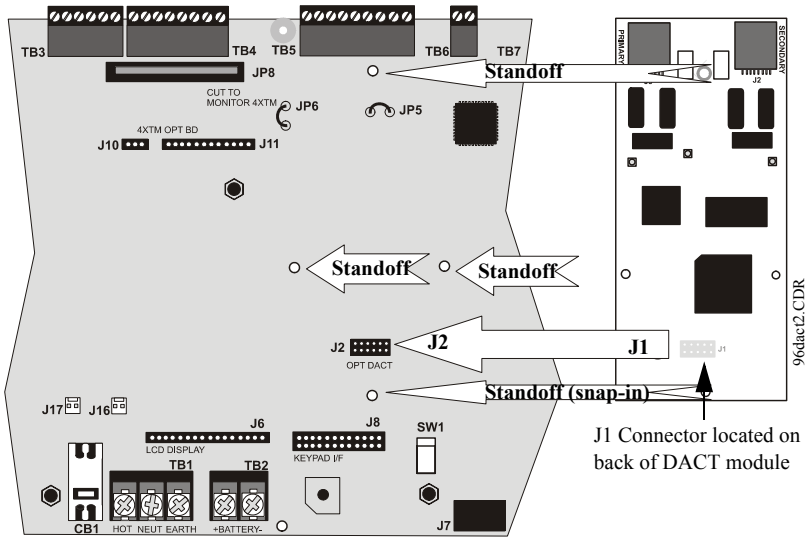


Figure 2.3 DACT J1 Connector to FACP J2 Connector

6. Secure the module to the standoffs on the main circuit board with the three screws supplied with the DACT-UD. It is important that the supplied screws be used to secure the module to the metal standoff in order to help protect against electrical transients.

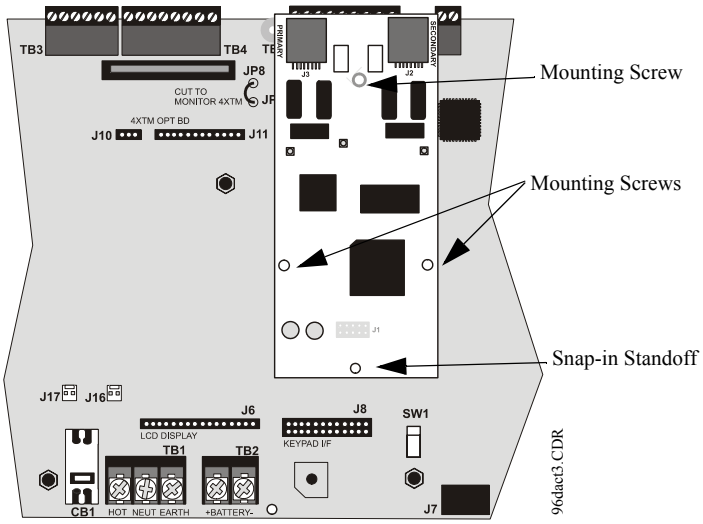


Figure 2.4 DACT Installation on Standoffs

7. Reinstall the Keypad/Display on the main circuit board by positioning the unit over the appropriate standoffs and securing with the screws which were loosened in step 2
8. Make certain to program the control panel for DACT operation

9. Refer to "Digital Communicator" on page 10, before proceeding with this step. Connect the premises primary and secondary phone lines to the DACT as illustrated in Figure 2.5 and test the system for correct operation

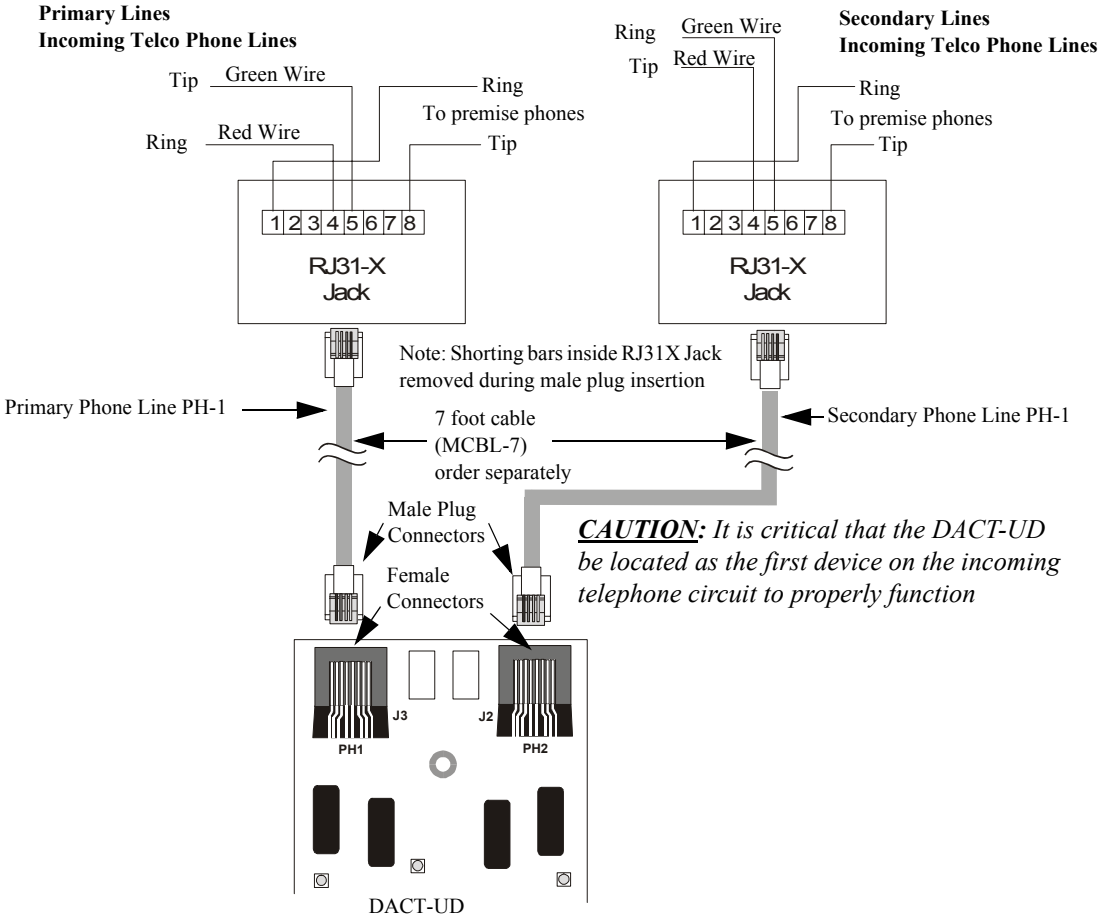


Figure 2.5 Wiring Phone Jacks

It is critical that the DACT be located as the first device on the incoming telephone circuit to properly function.

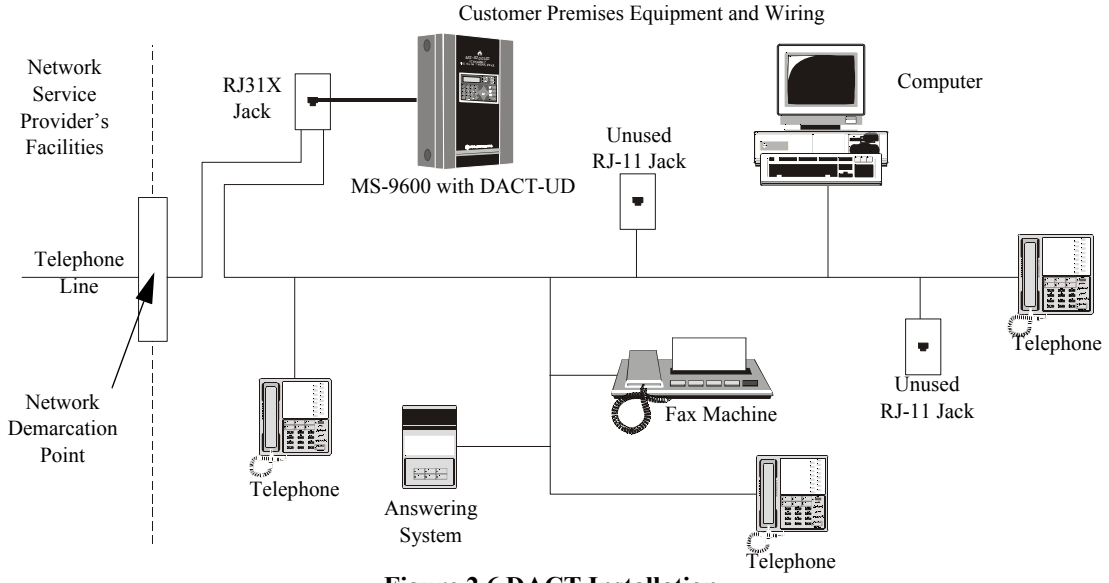


Figure 2.6 DACT Installation

SECTION 3 Programming for DACT-UD

3.1 Programming the MS-9600 Fire Alarm Control Panel

Refer to the MS-9600 Manual programming section for general programming information. To program the MS-9600 FACP for use with the DACT-UD:

1. Press the *Enter* or *Mode* key to display the Read Status/Programming screen
2. Press *2* to access Programming
3. Enter the Master level password
4. Press the down arrow key twice to view the screen with the Option Modules choice
5. Press *3* for Option Modules to access the Option Modules screen as shown to the left
6. Program the FACP for use with the DACT-UD using the following procedure

```
   OPTION MODULES
1=ANNUNCIATORS/UDACT
2=ON BOARD DACT
3=PRINTER/PC
```

Option Module Screen

3.1.1 On-Board DACT

The DACT-UD (Digital Alarm Communicator/Transmitter) is an optional module which installs directly on the FACP main circuit board for communication to a central station. Pressing *2* while viewing the Option Module Screen will cause the following screens to be displayed:

```
    ON BOARD DACT      ⇩
1=ENABLED        YES
2=PRIMARY PHONE
3=SECONDARY PHONE
```

On Board DACT Screen #1

```
    ON BOARD DACT      ⇧
1=SERVICE TERMINAL
2=CENTRAL STATION
3=MANUAL DIAL MODE
```

On Board DACT Screen #2

3.1.1.1 DACT-UD Enable

To enable the on-board DACT module, press *1* while viewing On Board DACT Screen #1 until the display reads *Enabled Yes*. The display will toggle between *Enabled Yes* and *Enabled No* with each press of the key.

3.1.1.2 Primary Phone

Press *2* while viewing On Board DACT Screen #1 to program the type of primary phone line being connected to the DACT. The following screen will be displayed:

```
    ON BOARD DACT
 PRIMARY PHONE LINE
1=TYPE     TOUCHTONE
```

Primary Phone Line Screen

To select the type, press *1* while viewing the Primary Phone Line screen. The following screen will be displayed:

```
    PHONE LINE
1=TOUCHTONE
2=ROTARY 67/33
3=ROTARY 62/38
```

Primary Phone Type Screen

Press *1* to select Touchtone dialing, *2* to select Rotary dialing with a make/break ratio of 67/33 or *3* to select Rotary dialing with a make/break ratio of 62/38.

```
   ON BOARD DACT
1=ENABLED
2=PRIMARY PHONE
3=SECONDARY PHONE
```

On Board DACT Screen #1

3.1.1.3 Secondary Phone

Press *3* while viewing On Board DACT Screen #1 to program the type of secondary phone line being connected to the DACT. The following screen will be displayed:

```
    ON BOARD DACT
 SECONDARY PHONE LINE
1=TYPE      TOUCHTONE
```

Secondary Phone Line Screen

To select the type, press *1* while viewing the Secondary Phone Line screen. The following screen will be displayed:

```
    PHONE LINE
1=TOUCHTONE
2=ROTARY 67/33
3=ROTARY 62/38
```

Secondary Phone Type Screen

Press *1* to select Touchtone dialing, *2* to select Rotary dialing with a make/break ratio of 67/33 or *3* to select Rotary dialing with a make/break ratio of 62/38.

```
  ON BOARD DACT
1=SERVICE TERMINAL
2=CENTRAL STATION
3=MANUAL DIAL MODE
```

On Board DACT Screen #2

3.1.1.4 Service Terminal

The MS-9600 can be programmed remotely from a PC using a modem and telephone line. Information can also be retrieved from the FACP using the same method. The Upload/Download option allows an operator to set the necessary parameters to allow the uploading and downloading of data between the FACP and PC. The Service Terminal selection provides the means for entering these parameters.

Pressing *1* while viewing On Board DACT Screen #2 will cause the following screens to appear:

```
  SERVICE TERMINAL    ⇩
1=PANEL ID
2=TERMINAL 1
3=TERMINAL 2
```

Service Terminal Screen #1

```
  SERVICE TERMINAL    ⇧
1=RING COUNT    3
```

Service Terminal Screen #2

3.1.1.4.1 Panel ID

The Panel Identification Number is a 4-digit code (valid digits being 0 - 9 and A - F) that is used to identify the installed FACP. It is important to program this code into the FACP the first time that downloading is performed so that the called Service Terminal can identify the control panel. The factory default is *0000*.

To program the Panel ID, press *1* while viewing Service Terminal Screen #1. The following screen will be displayed:

```
      PANEL ID

4 CHARACTER 0-F
```

Panel ID Screen

A flashing cursor will appear in the lower left corner of the display. Enter a 4-digit code using the digits 0 - 9 and/or the letters A - F by entering the first character. Press the right arrow key to move the cursor to the second position and enter the second character. Follow the same procedure to enter the remaining characters. After entering the fourth character, press the right arrow key and then press the *Enter* key to store the Panel ID number.

3.1.1.4.2 Terminal 1 and Terminal 2

Service Terminal #1 is generally designated as the FACP primary phone line used for receiving phone calls from the service terminal (PC) being used for remote programming. Service Terminal 2 is referred to as the secondary phone line. Pressing *2* for Terminal 1 or *3* for Terminal 2 while viewing Service Terminal Screen #1 will display the following screen:

```
  SERVICE TERMINAL #
1=PHONE NUMBER
```

Service Terminal # Screen

Phone Number (Service Terminal)

The Service Terminal Phone Number will be used by the control panel to contact the service terminal. Pressing *1* while viewing the Service Terminal # Screen will cause the following screen to be displayed:

```
   PHONE NUMBER

20 NUMBERS MAXIMUM
```

Printer-PC Screen

A flashing cursor will appear in the lower left corner. Enter the phone number for the service terminal by keying in the first digit, pressing the left arrow key and entering the second digit. Continue this process until all desired numbers have been entered (maximum of 20 characters). Press the *Enter* key to store the phone number in memory and return the display to the Service Terminal # Screen.

Valid entries are 0 - 9 and A - F with the numeric digits as dialed numbers and letters representing the following functions:

- A = * on a Touchtone phone keypad
- B = # on a Touchtone phone keypad
- C = look for secondary dial tone for up to two seconds (then dial anyway)
- D = three second pause
- E = five second pause
- F = end of phone number (F is automatically entered for unused entry positions)

3.1.1.4.3 Ring Count

The ring count designates the number of rings allowed on the phone line prior to answering an incoming call from a service terminal. The factory default is *3* which means the control panel will not answer an incoming call until 3 rings are detected. This entry may be programmed for *1* to *25* rings. A setting of *00* prevents the panel from answering incoming calls.

To change the Ring Count, press *1* while viewing the Service Terminal Screen #2. The following screen will be displayed:

```
RING COUNT

0-25 RANGE
```

Ring Count Screen

A flashing cursor will appear in the lower left corner of the display. Enter the two-digit ring count which can be a value between 00 and 25. After the second digit is entered, the display will return to the Service Terminal screen.

```
ON BOARD DACT
1=SERVICE TERMINAL
2=CENTRAL STATION
3=MANUAL DIAL MODE
```

On Board DACT Screen #2

3.1.1.5 Central Station

Central Station programming configures the control panel DACT for contacting the central station. Pressing *2* while viewing On Board DACT Screen #2 will cause the following screens to be displayed:

```
CENTRAL STATION      ⇩
1=REPORTING DISABLED
2=REPORT      BACKUP
3=CALL LIMIT
```

Central Station Screen #1

```
CENTRAL STATION      ⇧
1=PRIMARY
2=SECONDARY
3=REPORT STYLE
```

Central Station Screen #2

3.1.1.5.1 Reporting Enable

To enable the DACT for reporting FACP activity to the central station, press *1* while viewing Central Station Screen #1 so the display reads *Reporting Enabled*. Each press of the *1* key will toggle the display between *Reporting Disabled* and *Reporting Enabled*.

3.1.1.5.2 Backup Reporting

The DACT can be programmed to transmit reports to primary and/or secondary central station phone numbers as a backup. Press *2* while viewing Central Station Screen #1 to display the following screen:

```
 BACKUP REPORTING
1=BACKUP ONLY
2=BOTH
3=FIRST AVAILABLE
```

Backup Reporting Screen

Press *1* to have all reports transmitted to the central station secondary phone number as a backup only if the primary phone line fails, *2* to transmit all reports to both the primary and secondary phone numbers all of the time or *3* to send reports to the first available phone number.

3.1.1.5.3 Trouble Call Limit (Dialer Runaway Prevention)

The Call Limit option limits the number of DACT trouble calls to the Central Station, to a programmed amount between 0 and 99, for each unique trouble within a 24 hour period. Separate limit counters keep track of each unique type of trouble. Note that the number of phone line (communication) faults called to the Central Station are not limited by this feature. No subsequent restoral message is sent to the Central Station(s) for a particular trouble whose call limit has been reached. Local DACT annunciation will still track the particular trouble and restoral.

To set the Trouble Call Limit, press *3* while viewing Central Station Screen #1. The following screen will be displayed.

```
 TROUBLE CALL LIMIT

  00-99 RANGE
*
```

Backup Reporting Screen

Enter a value between 00 and 99, then press Enter to set the Call Limit to this value.

```
  CENTRAL STATION
1=PRIMARY
2=SECONDARY
3=REPORT STYLE
```

Central Station Screen #2

3.1.1.5.4 Central Station Primary and Secondary Phone Numbers

Pressing *1* for Primary or *2* for Secondary will cause the following screens to be displayed.

```
 CENTRAL STATION      ⇩
1=TEST TIME INT    24
2=ACCOUNT CODE   0000
3=24HR TST TIME  0021
```

Primary/Secondary Screen #1

```
 CENTRAL STATION      ⇕
1=PHONE NUMBER
```

Primary/Secondary Screen #2

```
 CENTRAL STATION      ⇕
1=COMM FORMAT
   ADEMCO-CONTACT-ID
```

Primary/Secondary Screen #3

```
 CENTRAL STATION      ⇧
1=EVENT CODES
```

Primary/Secondary Screen #4

```
  CENTRAL STATION
1=TEST TIME INT
2=ACCOUNT CODE
3=24HR TST TIME
```

Primary/Secondary Screen #1

Test Time Interval

Pressing *1* while viewing Primary/Secondary Screen #1 will cause the following screens to be displayed:

```
  TEST TIME INTERVAL ⇩
1=24 HOURS
2=12 HOURS
3=8 HOURS
```

Test Time Interval Screen #1

```
  TEST TIME INTERVAL ⇧
1=6 HOURS
```

Test Time Interval Screen #2

The test report sent to the Central Station phone number may be sent once every 6, 8, 12 or 24 hours. Select the desired Test Time Interval by pressing the corresponding digit in the screens shown above.

Account Code

Pressing *2* while viewing Primary/Secondary Screen #1 will cause the following screen to be displayed:

```
  ACCOUNT CODE

4 CHAR RANGE 0-F
```

Account Codes Screen

The Account Code, which is assigned by a Central Station, depends on the communication format being used. The Account Code screen will have a flashing cursor in the lower left corner. Enter the supplied account code using 0 - 9 and A- F keys.

*Note: If the Account Code being entered is a three digit number, enter the three digits first and then add a **0** (zero) as the fourth digit.*

```
CENTRAL STATION
1=TEST TIME INT
2=ACCOUNT CODE
3=24HR TST TIME
```

Primary/Secondary Screen #1

24 Hour Test Time

Pressing 3 while viewing Primary/Secondary Screen #1 will cause the following screen to be displayed:

```
24 HOUR TEST TIME

RANGE 0000-2359
```

24 Hour Test Time Screen

Use the 24 Hour Test Time screen to program the time that the DACT-UD will transmit the 24 Hour Test to the Central Station. A flashing cursor will appear in the lower left corner of the screen. Enter a four digit number representing the test time using military time (0000 = midnight and 2359 = 11:59PM).

```
CENTRAL STATION
1=PHONE NUMBER
```

Primary/Secondary Screen #2

Phone Number

Pressing *1* while viewing Primary/Secondary Screen #2 will cause the following screen to be displayed:

```
PHONE NUMBER

20 NUMBERS MAXIMUM
```

Phone Number Screen

The Phone Number screen is used to enter the Central Station phone number that the DACT-UD will be contacting. A maximum of 20 characters can be entered with valid entries being 0 - 9 and A - F where A = *, B = #, C = look for secondary dial tone for up to 2 seconds (then dial anyway), D = 3 second pause, E = 5 second pause and F = end of phone number (must be entered at end of phone number).

A flashing cursor will appear in the lower left corner of the screen. Enter the first digit then press the right arrow key to move the cursor to the right one position. Enter the second digit and repeat the process until all digits are entered. Press the *Enter* key to store the phone number in memory.

Enter the digits as you would like the number to be dialed. For example, if it's necessary to dial 9 before dialing a number outside the building, you may wish to pause after dialing 9. Enter *9* followed by *D* for a three second pause or *E* for a five second pause then the phone number followed by an F to indicate the end of the number.

```
CENTRAL STATION
1=COMM FORMAT
```

Primary/Secondary Screen #3

Pressing *1* while viewing Primary/Secondary Screen #3 will cause the following screens to be displayed:

```
COMM FORMAT
1=ADEMCO EXPRESS 4P1
2=ADEMCO EXPRESS 4P2
3=3P1S C18 A23
```

Comm Format Screen #1

```
COMM FORMAT
1=3P1E C18 A23
2=3P1S C19 A14
3=3P1E C19 A14
```

Comm Format Screen #2

```
COMM FORMAT
1=4P1S C18 A23
2=4P1E C18 A23
3=4P1S C19 A14
```

Comm Format Screen #3

```
COMM FORMAT
1=4P1E C19 A14
2=4P2S C18 A23
3=4P2E C18 A23
```

Comm Format Screen #4

```
COMM FORMAT
1=4P2S C19 A14
2=4P2E C19 A14
3=ADEMCO CONTACT ID
```

Comm Format Screen #5

The Communication Format is determined by the type of receiver that the DACT-UD is transmitting to. *Consult your Central Station for proper selection or consult our factory representatives. For any format chosen, the control panel automatically programs all of the event codes.*

Select the Communication Format by pressing the corresponding number key while viewing the appropriate Comm Format screen. The following table describes each format:

Table 3.1 Communication Formats

Screen Selection	Communication Format Description
ADEMCO EXPRESS 4P1	4+1 Ademco Express Standard, DTMF, 1400/2300 ACK
ADEMCO EXPRESS 4P2	4+2 Ademco Express Standard, DTMF, 1400/2300 ACK
3P1S C18 A23	3+1 Standard 1800 Hz Carrier, 2300 Hz ACK
3P1E C18 A23	3+1 Expanded 1800 Hz Carrier, 2300 Hz ACK
3P1S C19 A14	3+1 Standard 1900 Hz Carrier, 1400 Hz ACK
3P1E C19 A14	3+1 Expanded 1900 Hz Carrier, 1400 Hz ACK
4P1S C18 A23	4+1 Standard 1800 Hz Carrier, 2300 Hz ACK
4P1E C18 A23	4+1 Expanded 1800 Hz Carrier, 2300 Hz ACK
4P1S C19 A14	4+1 Standard 1900 Hz Carrier, 1400 Hz ACK
4P1E C19 A14	4+1 Expanded 1900 Hz Carrier, 1400 Hz ACK
4P2S C18 A23	4+2 Standard 1800 Hz Carrier, 2300 Hz ACK
4P2E C18 A23	4+2 Expanded 1800 Hz Carrier, 2300 Hz ACK
4P2S C19 A14	4+2 Standard 1900 Hz Carrier, 1400 Hz ACK
4P2E C19 A14	4+2 Expanded 1900 Hz Carrier, 1400 Hz ACK
ADEMCO CONTACT ID	Contact ID, DTMF, 1400/2300 ACK

```
  CENTRAL STATION
1=EVENT CODES
```

Primary/Secondary Screen #4

Event Codes

Pressing *1* while viewing Primary/Secondary Screen #4 will cause the following screen to be displayed:

```
 EVENT CODES          ⇩
1=PULL STATION
2=MON-USER-DEF-1
3=WATERFLOW
```

Event Code Screen

Pressing the down arrow key allows viewing of all Events associated with the selected Communication Format. Pressing the number corresponding to the event displayed in each screen will display its default event code which can be customized by the programmer. For example, pressing 1 for Pull Station will display a screen similar to the following which allows the Event Code to be changed from the default value.

```
PULL STATION
ALARM          000
```

Event Code Screen

The tables on the following pages list all of the Events and their default Event Codes for the various Communication Formats.

3+1, 4+1 Express and 4+1 Standard

The information shown in Table 3.2 is automatically programmed for the Central Station phone number Event Codes when any of these Formats are selected. Enter *0* for an Event Code Setting to disable the report.

Table 3.2 Event Codes

Event Description	Event Code Settings	
	Active	Restoral
PULL STATION	1	E
MON-USER-DEF-1	1	E
WATERFLOW	1	E
MON-USER-DEF-2	1	E
SMOKE (PHOTO)	1	E
DET-USER-DEF-1	1	E
SMOKE (ION)	1	E
DET-USER-DEF-2	1	E
HEAT DETECT	1	E
DET-USER-DEF-3	1	E
SMOKE DUCT-P	1	E
DET-USER-DEF-4	1	E
DUCT SUPERVISORY	8	E
DET-USER-DEF-5	8	E
not used	0	0
not used	0	0
not used	0	0
not used	0	0
MONITOR	1	E
MON-USER-DEF-3	1	E
not used	0	0
not used	0	0
SMOKE CONVEN	1	E
MON-USER-DEF-5	1	E
HEAT DETECT	1	E
MON-USER-DEF-6	1	E
MEDIC ALERT	0	0
MON-USER-DEF-7	0	0
HAZARD ALERT	0	0
MON-USER-DEF-8	0	0
TORNADO ALRT	0	0
MON-USER-DEF-9	0	0
PHONE	0	0
MON-USER-DEF-10	0	0
TAMPER	8	E
MON-USER-DEF-11	8	E
MON SUPERVISORY	8	E
MON-USER-DEF-12	8	E
MON SUPERV AUTO	8	E
MON-USER-DEF-13	8	E
POWER MON	6	A
MON-USER-DEF-14	6	A
TROUBLE MON	refer to POINT_FAULT for codes	
MON-USER-DEF-15	refer to POINT_FAULT for codes	
PROCESS MON	0	0
MON-USER-DEF-16	0	0

Table 3.2 Event Codes (Continued)

PROCMON AR	0	0
MON-USER-DEF-17	0	0
not used	0	0
not used	0	0
POINT_FAULT	F	D
POINT_DISABLE	4	5
AC_FAIL	9	3
DRILL	B	C
SLC 1 OPEN FAULT	6	A
SLC 1 SHORT FAULT	6	A
SLC 2 OPEN FAULT	6	A
SLC 2 SHORT FAULT	6	A
GROUND FAULT	6	A
LOW BATTERY	6	A
NO_BATTERY	6	A
TELCO LINE 1	6	A
TELCO LINE 2	6	A
COMM FAULT 1	6	A
COMM FAULT 2	6	A
TOTAL COMM FLT	0	0
PRINTER FAULT	6	A
NAC 1 FAULT	6	A
NAC 2 FAULT	6	A
NAC 3 FAULT	6	A
NAC 4 FAULT	6	A
not used	0	0
VOICE EVACUATION	6	A
ACS FAULT	6	A
LCD_80F FAULT	6	A
NAC 1 DISABLE	4	5
NAC 2 DISABLE	4	5
NAC 3 DISABLE	4	5
NAC 4 DISABLE	4	5
MEMORY FAULT	6	A
CHARGER FAULT	6	A
OPTION CARD 1 FAULT	6	A
OPTION CARD 2 FAULT	6	A
SLC 2 FAULT	6	A
ZONE DISABLE	4	5
NAC_KEY_FLT	6	A
NO_DEVICES_INSTLLD	6	A
OFF_NORMAL_MESSAGE	6	A
24_HOUR_TEST	9	0
24 HOUR ABNORMAL TES	F	0
UPDOWN REQUEST	7	0
UPLOAD SUCCESS	7	0
DOWNLOAD SUCCESS	7	0
UPDOWN FAILURE	7	0
GENERAL_ALARM	0	0
GENERAL_SUPERVISORY	0	0

4+2 Standard, 4+2 Express, 3 + 1, 4+1 and 4+2 Expanded Formats

The information shown in Table 3.3 is automatically programmed for the Central Station phone number Event Codes when any of these Formats are selected. Enter *00* for an Event Code Setting to disable the report.

Table 3.3 Event Codes

Event Description	Event Code Settings	
	Active	Restoral
PULL STATION	11	E1
MON-USER-DEF-1	11	E1
WATERFLOW	11	E1
MON-USER-DEF-2	11	E1
SMOKE (PHOTO)	11	E1
DET-USER-DEF-1	11	E1
SMOKE (ION)	11	E1
DET-USER-DEF-2	11	E1
HEAT DETECT	11	E1
DET-USER-DEF-3	11	E1
SMOKE DUCT-P	11	E1
DET-USER-DEF-4	11	E1
DUCT SUPERVISORY	81	E1
DET-USER-DEF-5	81	E1
not used	00	00
not used	00	00
not used	00	00
not used	00	00
MONITOR	11	E1
MON-USER-DEF-3	11	E1
not used	00	00
not used	00	00
SMOKE CONVEN	11	E1
MON-USER-DEF-5	11	E1
HEAT DETECT	11	E1
MON-USER-DEF-6	11	E1
MEDIC ALERT	00	00
MON-USER-DEF-7	00	00
HAZARD ALERT	00	00
MON-USER-DEF-8	00	00
TORNADO ALRT	00	00
MON-USER-DEF-9	00	00
PHONE	00	00
MON-USER-DEF-10	00	00
TAMPER	81	E1
MON-USER-DEF-11	81	E1
MON SUPERVISORY	81	E1
MON-USER-DEF-12	81	E1
MON SUPERV AUTO	81	E1
MON-USER-DEF-13	81	E1
POWER MON	81	E1
MON-USER-DEF-14	81	E1
TROUBLE MON	refer to POINT_FAULT for codes	
MON-USER-DEF-15	refer to POINT_FAULT for codes	
PROCESS MON	00	00
MON-USER-DEF-16	00	00

Table 3.3 Event Codes (Continued)

PROCMON AR	00	00
MON-USER-DEF-17	00	00
not used	00	00
not used	00	00
POINT_FAULT	F1	D1
POINT_DISABLE	41	51
AC_FAIL	92	93
DRILL	97	98
SLC 1 OPEN FAULT	43	53
SLC 1 SHORT FAULT	44	54
SLC 2 OPEN FAULT	4B	5B
SLC 2 SHORT FAULT	4C	5C
GROUND FAULT	61	A1
LOW BATTERY	62	A2
NO_BATTERY	63	A3
TELCO LINE 1	64	A4
TELCO LINE 2	65	A5
COMM FAULT 1	6A	AA
COMM FAULT 2	6B	AB
TOTAL COMM FLT	00	00
PRINTER FAULT	6C	AC
NAC 1 FAULT	66	A6
NAC 2 FAULT	67	A7
NAC 3 FAULT	68	A8
NAC 4 FAULT	69	A9
not used	00	00
VOICE EVACUATION	00	00
ACS FAULT	6D	AD
LCD_80F FAULT	6E	AE
NAC 1 DISABLE	4B	5B
NAC 2 DISABLE	4C	5C
NAC 3 DISABLE	4D	5D
NAC 4 DISABLE	4E	5E
MEMORY FAULT	46	56
CHARGER FAULT	47	57
OPTION CARD 1 FAULT	48	58
OPTION CARD 2 FAULT	49	59
SLC 2 FAULT	4F	5F
ZONE DISABLE	42	52
NAC_KEY_FLT	4B	5B
NO_DEVICES_INSTLLD	4A	5A
OFF_NORMAL_MESSAGE	6F	AF
24_HOUR_TEST	99	00
24 HOUR ABNORMAL TES	FB	00
UPDOWN REQUEST	71	00
UPLOAD SUCCESS	72	00
DOWNLOAD SUCCESS	73	00
UPDOWN FAILURE	74	00
GENERAL_ALARM	00	00
GENERAL_SUPERVISORY	00	00

Ademco Contact ID Format

The information shown in Table 3.4 is automatically programmed for the Central Station phone number Event Codes when Ademco Contact ID Format is selected. Enter *000* for an Event Code Setting to disable the report.

Table 3.4 Event Codes

Event Description	Event Code Settings Active
PULL STATION	115
MON-USER-DEF-1	115
WATERFLOW	113
MON-USER-DEF-2	113
SMOKE (PHOTO)	111
DET-USER-DEF-1	111
SMOKE (ION)	111
DET-USER-DEF-2	111
HEAT DETECT	114
DET-USER-DEF-3	114
SMOKE DUCT-P	116
DET-USER-DEF-4	116
DUCT SUPERVISORY	200
DET-USER-DEF-5	200
not used	000
not used	000
not used	000
not used	000
MONITOR	110
MON-USER-DEF-3	110
not used	000
not used	000
SMOKE CONVEN	111
MON-USER-DEF-5	111
HEAT DETECT	114
MON-USER-DEF-6	114
MEDIC ALERT	100
MON-USER-DEF-7	100
HAZARD ALERT	150
MON-USER-DEF-8	150
TORNADO ALRT	150
MON-USER-DEF-9	150
PHONE	000
MON-USER-DEF-10	000
TAMPER	144
MON-USER-DEF-11	144
MON SUPERVISORY	200
MON-USER-DEF-12	200
MON SUPERV AUTO	200
MON-USER-DEF-13	200
POWER MON	330
MON-USER-DEF-14	330
TROUBLE MON	refer to POINT_FAULT for code
MON-USER-DEF-15	refer to POINT_FAULT for code
PROCESS MON	000
MON-USER-DEF-16	000

Table 3.4 Event Codes (Continued)

PROCMON AR	000
MON-USER-DEF-17	000
not used	000
not used	000
POINT_FAULT	380
POINT_DISABLE	570
AC_FAIL	301
DRILL	604
SLC 1 OPEN FAULT	371
SLC 1 SHORT FAULT	372
SLC 2 OPEN FAULT	371
SLC 2 SHORT FAULT	372
GROUND FAULT	310
LOW BATTERY	302
NO_BATTERY	311
TELCO LINE 1	351
TELCO LINE 2	352
COMM FAULT 1	354
COMM FAULT 2	355
TOTAL COMM FLT	000
PRINTER FAULT	336
NAC 1 FAULT	321
NAC 2 FAULT	322
NAC 3 FAULT	326
NAC 4 FAULT	327
not used	000
VOICE EVACUATION	337
ACS FAULT	333
LCD_80F FAULT	334
NAC 1 DISABLE	521
NAC 2 DISABLE	522
NAC 3 DISABLE	526
NAC 4 DISABLE	527
MEMORY FAULT	304
CHARGER FAULT	300
OPTION CARD 1 FAULT	331
OPTION CARD 2 FAULT	332
SLC 2 FAULT	370
ZONE DISABLE	570
NAC_KEY_FLT	300
NO_DEVICES_INSTLLD	380
OFF_NORMAL_MESSAGE	308
24_HOUR_TEST	602
24 HOUR ABNORMAL TES	608
UPDOWN REQUEST	411
UPLOAD SUCCESS	416
DOWNLOAD SUCCESS	412
UPDOWN FAILURE	413
GENERAL_ALARM	000
GENERAL_SUPERVISORY	000

```
  CENTRAL STATION
1=PRIMARY
2=SECONDARY
3=REPORT STYLE
```

Central Station Screen #2

Report Style

Pressing *3* while viewing Central Station Screen #2 will cause the Report Style display to toggle between *Point* and *Zone*. Setting the Report Style to Point will program the DACT to report individual point status to the Central Station. The control panel is capable of monitoring a total of 636 addressable devices. Setting the Report Style to Zone will program the DACT to report zone status to the Central Station. The control panel is capable of monitoring a total of 99 individual zones.

```
  CENTRAL STATION
1=PRIMARY
2=SECONDARY
3=REPORT STYLE   POINT
```

Central Station Screen #2

Notes on Central Station Reporting:

1. **SLC Loop 1**, Detector Address 01 will be reported to the Central Station as Point 01, Detector Address 02 as Point 02, with reports continuing in a similar fashion all the way up to Detector Address 159 which will be reported as Point 159.
2. **SLC Loop 1**, Module Address 01 will be reported to the Central Station as Point 160, Module Address 02 will be reported to the Central Station as Point 161, with reports continuing in a similar fashion all the way up to Module Address 159 which will be reported as Point 318.
3. **SLC Loop 2**, Detector Address 01 will be reported to the Central Station as Point 319, Detector Address 02 as Point 320, with reports continuing in a similar fashion all the way up to Detector Address 159 which will be reported as Point 477.
4. **SLC Loop 2**, Module Address 01 will be reported to the Central Station as Point 478, Module Address 02 as Point 479, with reports continuing in a similar fashion all the way up to Module Address 159 which will be reported as Point 636.

```
  ON BOARD DACT
1=SERVICE TERMINAL
2=CENTRAL STATION
3=MANUAL DIAL MODE
```

On Board DACT Screen #2

3.1.1.6 Manual Dial Mode

Pressing *3* while viewing On Board DACT Screen #2 will cause the following screen to be displayed:

```
 MANUAL DIAL MODE
1=PRIMARY PHONE
2=SECONDARY PHONE
```

Pressing *1* for Primary Phone or *2* for Secondary Phone will display the following:

```
 MANUAL DIAL MODE
1=GO OFF HOOK
2=DIAL DIGIT(S)
3=GO ON HOOK
```

Pressing *1* for Go Off Hook will cause the DACT to access the selected phone line (similar to taking the phone handset off the cradle). The selected phone line's red Active LED will turn on.

Pressing *2* for Dial Digit(s) will display a screen which allows the user to key in the phone number to be dialed. The first digit is keyed in and then the right arrow key is pressed to move the cursor to the next position. The next digit is keyed in and the process is repeated until all digits have been entered. Pressing the *Enter* key will cause the number just entered to be dialed.

Pressing *3* for Go On Hook will cause the DACT to hang-up, deselecting the previously selected phone line. The phone line's red Active LED will turn off.

3.2 Remote Site Upload/Download

The control panel may be programmed or interrogated off-site via the public switched telephone network. Any personal computer with Windows 95, a 1200 baud Hayes compatible modem and Fire•Lite Upload/Download software P/N PK-CD may serve as a Service Terminal. The Upload/Download software allows the following:

- ✓ Download of the entire program
- ✓ Download of an individual program item
- ✓ Upload of the entire program
- ✓ Upload of an individual program item
- ✓ Upload of the entire program plus history file, walktest data, current status, system voltages and time & date
- ✓ Real-time upload, either continuous or 'snapshot' (one time) of current status or system voltages
- ✓ Execution of control panel functions such as Trouble Silence, Manual Evacuate, Manual Evacuate Restore, Zone/NAC Disable, Zone/NAC Enable and Set Time & Date

WARNING: Changes to program entries occur as a result of the downloading process. After successful downloading, make certain to perform the following steps:

1. Print out all programmed data via print mode or manually view programmed entries and compare to intended program data
2. Test all affected panel operations
3. Immediately correct any problems found

3.2.1 Downloading Program: General

Any time that the control panel is downloaded, whether initiated at the jobsite or remotely, a secret code (Factory Default 0000) is verified between the control panel and the Service Terminal. Changing the Secret Code may only be accomplished at the Service Terminal and subsequently loaded into the control panel. Future upload or download requests cause verification of the secret code by the control panel before processing of data is allowed. If the secret code is not verified, the control panel will terminate the request immediately.

While the control panel is communicating with the Service Terminal, the DACT-UD's green Modem LED and one of the red Line Seize LEDs will remain on steady. At the conclusion of a successful download transaction, the green Kissoff LED will come on steady for one second. Upon termination of communication, the green Modem LED will turn off and the red Line Seize LED will turn off.

In order to download the panel (whether initiated at the jobsite or remotely) the following must be true:

- ✓ The control panel may be in any mode of operation, including Disable, Enable and Drill. Downloading is not possible if the communicator is active during Central Station communications or while testing the phone lines while in Troubleshoot mode
- ✓ There cannot be any active communications ongoing with a Central Station receiver
- ✓ All active events must be successfully 'Kissed-off' by the Central Station(s) The communicator must be in a standby state with no new information waiting to be transmitted to a Central Station

Two basic communication mechanisms are supported as follows:

- Download with Callback - the Service Terminal calls the control panel. The control panel answers the call, confirms the calling party then hangs-up. The Service Terminal then waits for a callback from the control panel. After the control panel calls the Central Station and successfully reports that a request for downloading has been received, the control panel calls the Service Terminal back. Upon secret code verification, data transfers occur. When the data transfers are completed and the Service Terminal disconnects from the control panel, the panel calls the Central Station back to confirm either successful or unsuccessful results
- Download with Callback Disabled - the Service Terminal calls the control panel. No hang-up sequence occurs. Data transfers proceed.

Note: Callback enable/disable is controlled by the master user at the Service Terminal on a per call basis.

Anytime a download with callback is initiated, the control panel will first contact the primary Central Station or both the primary and secondary Central Stations or the first available Central Station phone number (depending on which option has been programmed into the control panel) to report a *request for upload/download* message. Once the request is 'Kissed-off' by the Central Station(s), the control panel will then call the appropriate Service Terminal and begin the downloading process.

Anytime a download without callback is initiated, the control panel and the Service Terminal will communicate and transfer data without first contacting a Central Station. When the data transfers are completed and the control panel disconnects from the Service Terminal, the panel will call the Central Station and report the following:

- Upload/download request received
- Upload and/or download successful or
- Upload/download failed

To prevent the *request for up/download* message(s) from being reported to the Central Stations(s), disable all upload/download reports back to both Central Stations.

During the downloading process, the fire protection remains active. Should a system trouble or alarm condition occur, the control panel immediately terminates downloading and processes the trouble or alarm locally and transmits the information to the Central Station(s).

3.2.2 Security Features

Remote site upload and download with the control panel has been carefully designed to include key security features to ensure proper functionality. The key features are listed and explained below.

Secret Code Verification
A secret code is stored in the control panel by a Service Terminal to prevent unauthorized access. The secret code is created at the Service Terminal in Password level 1 and cannot be viewed or changed by anyone other than a user with access to level 1. Viewing of the secret code is prohibited at the control panel. Prior to allowing an upload or download of data, the control panel will verify the secret code transmitted by the Service Terminal.

Time-out at Control Panel
Upon answering an incoming call on either the primary or secondary Central Station phone line, the panel will listen for a modem connection signal. If this signal is not received within 30 seconds, the panel will disconnect the call.

Upon successful connection (secret code verified and callback complete, if applicable), if no communication occurs within five minutes, the panel will disconnect the call.

Callback to Service Terminal
Anytime that the panel is remotely requested to allow an upload or download with callback, it will confirm the source of the incoming call, hang-up and call back the calling party (Service Terminal phone number).

Panel Identification Number
The panel identification number will be used to automatically identify the panel to the Service Terminal (when the panel calls the Service Terminal).

Calls initiated at the panel must be coordinated a the Service Terminal manually. Note that the Service Terminal will not pickup the incoming call unless operating on the communications screen. The Service Terminal will not recognize a control panel initiated call unless the secret code is at the factory default settings.

Error Checking
As each block of data is received by the control panel, it is checked for accuracy. If an error is detected, the block is retransmitted until correct, up to a maximum of four times. If the Secret Code is not verified and four errors occur, the call is disconnected and the report that the upload/download was not successful is called to the Central Station(s).

Central Station Acknowledge
There is an option whereby the control panel will report to one or both Central Stations that a request for uploading or downloading has been received prior to processing the call. This is called the *callback* option. If the Central Station(s) does not acknowledge receipt of this request, uploading or downloading is prohibited. If acknowledged by the Central Station(s), another message is transmitted informing the Central Station(s) that: (1) downloading was successful, (2) uploading was successful or (3) uploading/ downloading was not successful.

Data Protection/Integrity
Options allow programming of single data entries or the entire program. Use caution when selecting programming choices and verify all entries via an upload or manual check at the control panel. Data blocks containing user programming options are protected from partial programming due to faulty phone connections, line noise and other errors.

3.3 Downloading Initiated at a Service Terminal

Before initiating the Download procedure, make certain that the control panel is in the standby state with the red Line Seize LED, green Modem and Kissoff LEDs off.

Once an incoming call is accepted/answered by the control panel, the panel will:

1. Establish basic modem connection
2. Verify secret code
3. Verify callback vs. no callback request from the Service Terminal. If callback is requested then perform steps 4 through 10. If no callback is requested then perform steps 9 and 10 only
4. Identify the Service Terminal location
5. Hang-up/disconnect call
6. Call the Central Station(s) and transmit a request for upload/download message (if programmed to do so). If this message is accepted, the control panel will proceed to the next step
7. Return call to Service Terminal
8. Verify secret code
9. Begin downloading
10. Upon completion of download, call Central Station(s) back and report a successful download or failed upload/download status (if programmed to do so)

3.4 Uploading Initiated at a Service Terminal

Items that may be uploaded from the control panel to a Service Terminal are:

- All or portions of programmed data plus the real time clock, time and date
- Entire Walktest data file in real-time continuous or as a ‘snapshot’
- Troubleshoot system voltages in real-time continuous or as a ‘snapshot’
- Entire event History file
- Current system status in real-time continuous or a a ‘snapshot’

Uploading is possible at any time provided the following conditions are true:

✓ The control panel may be in any mode of operation. Uploading is not possible if the communicator is active or while testing the phone lines while in troubleshoot mode

✓ There cannot be any active communications ongoing with a Central Station receiver

✓ All active events must be successfully ‘Kissed-off’ by the Central Station(s). The communicator must be in a standby state with no new information waiting to be transmitted to a Central Station

Once an incoming call is accepted/answered by the control panel, the panel will

1. Establish basic modem connection
2. Verify secret code
3. Verify callback vs. no callback request from the Service Terminal. If callback is requested then perform steps 4 through 10. If no callback is requested then perform steps 9 and 10 only
4. Identify the Service Terminal location
5. Hang-up/disconnect call
6. Call the Central Station(s) and transmit a request for upload/download message (if programmed to do so). If this message is accepted, the control panel will proceed to the next step
7. Return call to Service Terminal
8. Verify secret code
9. Begin uploading
10. Upon completion of upload, call Central Station(s) back and report a successful upload or failed upload/download status (if programmed to do so)

During the uploading process, the fire protection remains active. Should a system trouble or alarm condition occur, the control panel immediately terminates uploading and processes the trouble or alarm locally and transmits the information to the Central Station(s).

3.5 Simultaneous Data Transfers

Uploading and downloading may take place on a single telephone call. Control and selection of the data transaction is coordinated at the Service Terminal. This eliminates multiple phone calls, allows instant verification of downloaded data files and simplifies the overall process.

SECTION 4 Central Station Communications

The DACT-UD transmits zone and system status reports to Central Stations via the public switched telephone network. Two supervised telephone line connections are made to interface the DACT to the telephone lines. Two optional 7 foot telephone cords are available for this purpose and can be purchased separately.

The control panel supervises both telephone lines for proper voltage. A delay of two minutes will occur before a fault in either phone line connection is reported as a trouble. When a fault is detected, an audible trouble signal will sound, the yellow trouble LED will blink, the display will show a DACT communication trouble and the trouble condition will be reported to the Central Station over the remaining operational phone line.

The DACT-UD comes with line seizure capability provided for both the primary and secondary telephone line interfaces. Any time that the control panel needs to make a call to a Central Station, line seizure will disconnect any local premises phones sharing the same telephone line.

All transmissions to the Central Stations will be sent over the primary phone line. In the event of noisy phone lines, transmissions will be sent over the backup secondary phone line.

Two phone numbers must be programmed, the primary Central Station phone number and the secondary Central Station phone number. All system reports will be transmitted to the primary Central Station phone number. Reports will automatically be sent to the secondary Central Station phone number if attempts to transmits to the primary Central Station phone number are unsuccessful. Note that as an option, *all* reports may also be sent to the secondary Central Station phone number.

The DACT-UD installed on the MS-9600 meets NFPA 72 National Fire Code reporting requirements for: (a) the type of signal, (b) condition and (c) location of the reporting premises. The general priority reporting structure is:

1. Zone Alarms and Restores
2. Zone Troubles and Restores
3. System Troubles and Restores
4. 24-hour Test

The control panel is capable of reporting detailed messages depending upon the format in use. Table 4-1 shows the reporting structure for all formats.

TABLE 4-1:Format Selection

	Format	Format	Format	Format
Report	3+1/4+1/Standard 4+1 Express	3+1/4+1/Expanded	4+2/Standard 4+2 Express	4+2/Expanded
Alarm	SSS(S) A	SSS(S) A AAA(A) Z	SSSS AA2	SSSS AZ
Alarm Restore	SSS(S) RA	SSS(S) RA RARARA(RA) Z	SSSS RARA2	SSSS RAZ
Zone Trouble (Zone Open)	SSS(S) TZ	SSS(S) TZ TZTZTZ(TZ) Z	SSSS TZTZ2	SSSS TZZ
Zone Trouble Restore	SSS(S) RTZ	SSS(S) RTZ RTZRTZRTZ(RTZ) Z	SSSS RTZRTZ2	SSSS RTZZ
System Trouble	SSS(S) TS	SSS(S) TS TSTSTS(TS) Y	SSSS TSTS2	SSSS TSY
System Trouble Restore	SSS(S) RTS	SSS(S) RTS RTSRTSRTS(RTS) Y	SSSS RTSRTS2	SSSS RTSY
Zone Disable	SSS(S) DZ	SSS(S) DZ DZDZDZ(DZ) Z	SSSS DZDZ2	SSSS DZZ
Zone Disable Restore	SSS(S) RDZ	SSS(S) RDZ RDZRDZRDZ(RDZ) Z	SSSS RDZRDZ2	SSSS RDZZ
Low Battery	SSS(S) L	SSS(S) L LLL(L) L2	SSSS LL2	SSSS LL2
Low Battery Restore	SSS(S) RL	SSS(S) RL RLRLRL(RL) L2	SSSS RLRL2	SSSS RLRL2
AC Loss	SSS(S) P	SSS(S) P PPP(P) P2	SSSS PP2	SSSS PP2
AC Loss Restore	SSS(S) RP	SSS(S) RP RPRPRP(RP) RP2	SSSS RPRP2	SSSS RPRP2
Fire Drill	SSS(S) FD	SSS(S) FD FDFDFD(FD) FD2	SSSS FDFD2	SSSS FDFD2
Fire Drill Restore	SSS(S) RFD	SSS(S) RFD RFDRFDRFD(RFD) RFD2	SSSS RFDRFD2	SSSS RFDRFD2
Supervisory Condition	SSS(S) V	SSS(S) V VVV(V) Z	SSSS VV2	SSSS VZ
Supervisory Condition Restore	SSS(S) RV	SSS(S) RV RVRVRV(RV) Z	SSSS RVRV2	SSSS RVZ
Test Report	SSS(S) X	SSS(S) X	SSSS XX2	SSSS XX2
Upload or Download	SSS(S) UD	SSS(S) UD	SSS UDUD2	SSS UDUD2

Refer to Table 4-2 for an explanation of each letter code in Table 4-1 . Refer to Table 4-3 for a list of compatible receivers.

TABLE 4-2:Format Selection Address Explanation

Where		
SSS or SSSS	=	Subscriber ID
A	=	Alarm (1st digit)
A2	=	Alarm (2nd digit)
Z	=	Zone Number
RA	=	Alarm Restore (1st digit)
RA2	=	Alarm Restore (2nd digit)
TZ	=	Zone Trouble (1st digit)
TZ2	=	Zone Trouble (2nd digit)
RTZ	=	Zone Trouble Restore (1st digit)
RTZ2	=	Zone Trouble Restore (2nd digit)
TS	=	System Trouble (1st digit)
TS2	=	System Trouble (2nd digit)
RTS	=	System Trouble Restore (1st digit)
RTS2	=	System Trouble Restore (2nd digit)
DZ	=	Zone Disable (1st digit)
DZ2	=	Zone Disable (2nd digit)
RDZ	=	Zone Disable Restore (1st digit)
RDZ2	=	Zone Disable Restore (2nd digit)
L	=	Low Battery (1st digit)
L2	=	Low Battery (2nd digit)
RL	=	Low Battery Restore (1st digit)
RL2	=	Low Battery Restore (2nd digit)
P	=	AC Loss (1st digit)
P2	=	AC Loss (2nd digit)
RP	=	AC Loss Restore (1st digit)
RP2	=	AC Loss Restore (2nd digit)
FD	=	Fire Drill (1st digit)
FD2	=	Fire Drill (2nd digit)
RFD	=	Fire Drill Restore (1st digit)
RFD2	=	Fire Drill Restore (2nd digit)
V	=	Supervisory Condition (1st digit)
V2	=	Supervisory Condition (2nd digit)
RV	=	Supervisory Condition Restore (1st digit)
RV2	=	Supervisory Condition Restore (2nd digit)
X	=	Test Report (1st digit)
X2	=	Test Report (2nd digit)
Y	=	A trouble corresponding to the following:
	7 =	Ground Fault
	8 =	Low Battery
	9 =	No Battery
	A =	Telco Primary Line Fault
	B =	Telco Secondary Line Fault
	C =	Main Bell Fault, Annunciator Bell
	D =	Communication Fault to Primary Number
	E =	Communication Fault to Secondary Number
	F =	System Off Normal Fault/System Fault (Slave Operation, see Chapter 6)
UD	=	Upload/download (1st digit)
UD2	=	Upload/download (2nd digit)

Note: For Expanded Reporting, the control panel automatically adds the digit corresponding to the zone number and the second digit corresponding to any system trouble condition. Only the first digit is programmable.

4.1 Transmittal Priorities

The DACT-UD transmits highest priority events first. Events, in terms of priority, are listed below in descending order:

1. Alarms (highest priority level)
   - ✓ Pull stations
   - ✓ Waterflow
   - ✓ Smoke detector
   - ✓ Other alarm types
2. Supervisory Zone
3. System Troubles
   - ✓ Zone disabled
   - ✓ Fire drill
   - ✓ AC fail (after delay)
   - ✓ Zonal faults
   - ✓ Earth fault
   - ✓ Low battery/no battery
   - ✓ Telephone line fault
   - ✓ Notification Appliance Circuits fault
   - ✓ Communication trouble
   - ✓ Annunciator trouble
   - ✓ System off normal
4. Restoral Reports
   - ✓ Zone alarm
   - ✓ Supervisory
   - ✓ Zone(s) enabled
   - ✓ Fire drill
   - ✓ AC
   - ✓ Zone fault
   - ✓ Earth
   - ✓ Battery
   - ✓ Telephone line
   - ✓ Notification Appliance Circuits
   - ✓ Communication
   - ✓ Annunciator trouble
   - ✓ System off normal
5. 24 Hour Test (lowest priority)

Red LEDs are provided on the DACT-UD circuit board to identify which telephone line is activated. Also, a green LED labeled 'kissoff' will turn on whenever the DACT-UD has successfully transmitted reports to the Central Station. The 'kissoff' LED may turn on several times during communications with a Central Station.

The table below shows UL listed receivers which are compatible with the DACT-UD.

TABLE 4-3:Compatible UL Listed Receivers

	Format #	Ademco 685 (1)	Silent Knight 9000 (2)	ITI CS-4000 (3)	FBI CP220FB	Osborne Hoffman Models 1 & 2	Radionics 6000 (6)	Radionics 6500 (5)	Sescoa 3000R (7)	Surguard MLR-2 (9)
	4+1 Ademco Express	✔			✔					✔
	4+2 Ademco Express	✔			✔	✔ **(8)**				✔
	3+1/Standard/1800/2300	✔	✔	✔	✔ **(4)**	✔	✔	✔	✔	✔
	3+1/Expanded/1800/2300	✔	✔	✔	✔ **(4)**	✔			✔	✔
	3+1/Standard/1900/1400	✔	✔		✔ **(4)**	✔			✔	✔
	3+1/Expanded/1900/1400	✔	✔		✔ **(4)**	✔			✔	✔
	4+1/Standard/1800/2300	✔	✔	✔	✔ **(4)**	✔		✔	✔	✔
	4+1/Expanded/1800/2300	✔	✔		✔ **(4)**	✔			✔	✔
	4+1/Standard/1900/1400	✔	✔		✔ **(4)**	✔			✔	✔
	4+1/Expanded/1900/1400	✔	✔		✔ **(4)**	✔			✔	✔
	4+2/Standard/1800/2300	✔	✔	✔	✔ **(4)**	✔		✔	✔	✔
	4+2/Expanded/1800/2300	✔	✔		✔ **(4)**	✔			✔	✔
	4+2/Standard/1900/1400	✔	✔		✔ **(4)**	✔			✔	✔
	4+2/Expanded/1900/1400	✔	✔		✔ **(4)**	✔			✔	✔
	Ademco Contact ID	✔			✔	✔				✔
	Not Used									

1. With 685-8 Line Card with Rev. 4.4d software
2. With 9002 Line Card Rev. 9035 software or 9032 Line Card with 9326A software
3. Rev. 4.0 software
4. FBI CP220FB Rec-11 Line Card with Rev. 2.6 software and a memory card with Rev. 3.8 software
5. Model 6500 with Rev. 600 software
6. Mode 6000 with Rev. 204 software
7. With Rev. B control card at Rev. 1.4 software and Rev. C line card at Rev. 1.5 software
8. Model 2 only
9. Version 1.62 software

APPENDIX A Default Programming

The following table provides a list of the programming options and their factory default settings.

Program Option	Factory Default
ON Board DACT	Disabled
Service Terminal Primary Phone Line Type	Touch Tone
Service Terminal Secondary Phone Line Type	Touch Tone
Service Terminal Panel ID	0000
Service Terminal Primary Phone Number	all Fs
Service Terminal Secondary Phone Number	all Fs
Service Terminal Primary Phone Ring Count.	03
Service Terminal Secondary Phone Ring Count	03
Service Terminal Upload/Download Reporting	Backup Only
Central Station Reporting	Disabled
Central Station AC Loss Reporting Delay	4
Central Station Backup Reporting	First Available
Central Station Primary Phone Line Reporting Style	Reporting by Point
Central Station Secondary Phone Line Reporting Style	Reporting by Point
Central Station Trouble Call Limit	10
Central Station Primary Phone Line Test Time	0000
Central Station Secondary Phone Line Test Time	0000
Central Station Primary Phone Line Test Time Interval	24
Central Station Secondary Phone Line Test Time Interval	24
Central Station Primary Phone Line Account Code	0000
Central Station Secondary Phone Line Account Code	0000
Central Station Primary Phone Number	all Fs
Central Station Secondary Phone Number	all Fs
Central Station Primary Phone Communication Format	Ademco Contact ID
Central Station Secondary Phone Communication Format	Ademco Contact ID

APPENDIX B Ademco Contact ID Format Event Code Descriptions

This appendix describes the various Event Codes and their messages which are available for the Ademco Contact ID Format.

The reporting structure for the Ademco Contact ID Format is as follows:

SSS 18 QXYZ GG CCC where

SSSS = Four digit Subscriber ID Account Code
18 = Identifies transmission as Contact ID to the receiver at the Central Station
Q = Event Qualifier where 1 = New Event and 3 = New Restore
XYZ = Event code (shown in Table 3.4)
GG = Group number
CCC = Zone number

Notes:

1. GG Group Number is fixed at '00' and cannot be changed.
2. CCC for Zone or Point Number :
   ✓ Zone Number is transmitted as '001' for zone 1 up to '099' for zone 99
   ✓ Point Number is transmitted as ‘001’ for point 1 to ‘636’ for point 636

Ademco Contact ID Reporting Structure

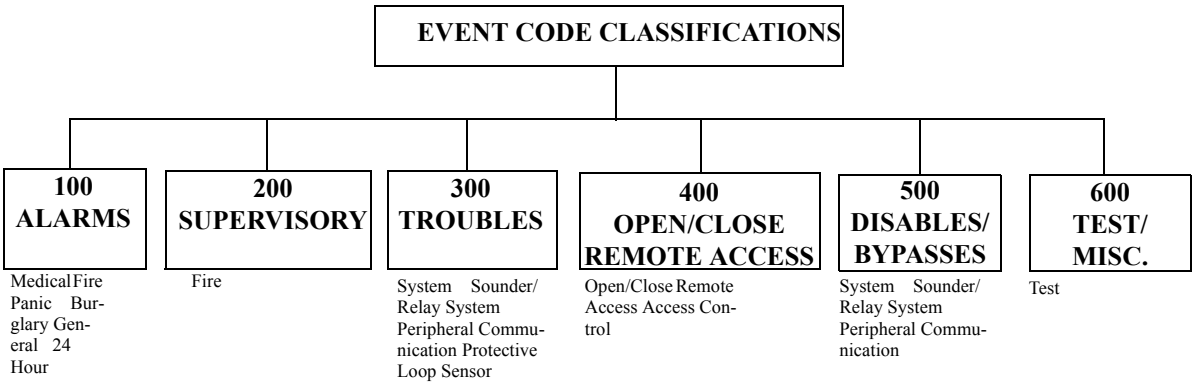
A typical printout from a Central Station receiver (such as the Ademco 685) of alarm and trouble reports in the Ademco Contact ID Reporting Structure follows:

Time	Date	Rcvr/Line ID	SSSS	QXYZ	GG	CCCC
11:28	03/25	11	7777	E110	00	C001 - general fire alarm on zone one
11:28	03/25	11	7777	E111	00	C002 - smoke detector alarm on zone two
11:28	03/25	11	7777	E380	00	C003 - fault on zone three
11:28	03/25	11	7777	E570	00	C009 - Zone nine disabled
11:28	03/25	11	7777	R110	00	C001 - Zone one alarm restored
11:28	03/25	11	7777	R111	00	C002 - smoke detector zone two restored
11:28	03/25	11	7777	R380	00	C003 - zone three fault restored
11:28	03/25	11	7777	R570	00	C009 - zone nine reenabled
11:28	03/25	11	7777	E158	00	C006 - high temperature, zone six
11:28	03/25	11	7777	E151	00	C007 - gas detected, zone seven

Notes:

1. **18**, which is used in the reporting structure to identify the transmission as Contact ID, is not printed out in the alarm and trouble report.
2. **Q**, which is the Event Qualifier for the reporting structure, is printed out in the report as an E for New Event or R for New Restore.

 Ademco Contact ID Format Event Code Descriptions



EVENT	MESSAGE
Medical Alarms - 100	
100 Medical	EMERG - Personal Emergency - #
101 Pendant transmitter	EMERG - Personal Emergency - #
102 Fail to report in	EMERG - Fail to Check-in - #
Fire Alarms - 110	
110 Fire Alarm	FIRE - Fire Alarm - #
111 Smoke	FIRE - Smoke Detector - #
112 Combustion	FIRE - Combustion - #
113 Waterflow	FIRE - Waterflow - #
114 Heat	FIRE - Heat Sensor - #
115 Pull station	FIRE - Pull Station - #
116 Duct	FIRE - Duct Sensor - #
117 Flame	FIRE - Flame Sensor - #
118 Near Alarm	FIRE - Near Alarm - #
Panic Alarms - 120	
120 Panic Alarm	PANIC - Panic - #
121 Duress	PANIC - Duress
122 Silent	PANIC - Silent Panic - #
123 Audible	PANIC - Audible Panic - #
Burglar Alarms - 130	
130 Burglary	BURG - Burglary - #
131 Perimeter	BURG - Perimeter - #
132 Interior	BURG - Interior - #
133 24-Hour	BURG - 24-Hour - #
134 Entry/Exit	BURG - Entry/Exit - #
135 Day/Night	BURG - Day/Night - #
136 Outdoor	BURG - Outdoor - #
137 Tamper	BURG - Tamper - #
138 Near Alarm	BURG - Near Alarm - #
General Alarms - 140	
140 General Alarm	ALARM - General Alarm - #
141 Polling loop open	ALARM - Polling Loop Open - #
142 Polling loop short	ALARM - Polling Loop Short - #
143 Expansion module failure	ALARM - Exp. Module Fail - #
144 Sensor tamper	ALARM - Sensor Tamper - #
145 Expansion module tamper	ALARM - Exp. Module Tamper - #

EVENT	MESSAGE
24 Hour Non-Burglary - 150 and 160	
150 24-Hour Non-Burg	ALARM - 24-Hr. Non-Burg - #
151 Gas detected	ALARM - Gas Detected - #
152 Refrigeration	ALARM - Refrigeration - #
153 Loss of heat	ALARM - Heating System - #
154 Water leakage	ALARM - Eater Leakage - #
155 Foil break	ALARM - Foil Break - #
156 Day trouble	ALARM - Day Zone - #
157 Low bottled gas level	ALARM - Low Gas Level - #
158 High temp	ALARM - High Temperature - #
159 Low temp	ALARM - Low Temperature - #
161 Loss of air flow	ALARM - Air Flow - #
Fire Supervisory - 200 and 210	
200 Fire supervisory	SUPER. - Fire Supervisory - #
201 Low water pressure	SUPER. - Low Water Pressure - #
202 Lox CO2	SUPER. - Low CO2
203 Gate valve sensor	SUPER. - Gate Valve - #
204 Low water level	SUPER. - Low Water Level - #
205 Pump activated	SUPER. - Pump Activation - #
206 Pump failure	SUPER. - Pump Failure - #
System Troubles - 300 and 310	
300 System trouble	TROUBLE - System Trouble
301 AC loss	TROUBLE - AC Power
302 Low system battery	TROUBLE - System Low Battery
303 RAM checksum bad	TROUBLE - Bad RAM Checksum (Restore not applicable)
304 ROM checksum bad	TROUBLE - Bad ROM Checksum (Restore not applicable)
305 System reset	TROUBLE - System Reset (Restore not applicable)
306 Panel program changed	TROUBLE - Programming Changed (Restore not applicable)
307 Self-test failure	TROUBLE - Self Test Failure
308 System shutdown	TROUBLE - System Shutdown
309 Battery test failure	TROUBLE - Battery Test Failure
310 Ground fault	TROUBLE - Ground Fault - #
311 No battery	TROUBLE - No Battery
Sounder/Relay Troubles - 320	
320 Sounder/Relay	TROUBLE - Sounder Relay - #
321 Bell 1	TROUBLE - Bell/Siren #1
322 Bell 2	TROUBLE - Bell/Siren #2
323 Alarm relay	TROUBLE - Alarm Relay
324 Trouble relay	TROUBLE - Trouble Relay
325 Reversing	TROUBLE - Reversing Relay
326 Bell 3	TROUBLE - Bell/Siren #3
327 Bell 4	TROUBLE - Bell/Siren #4
System Peripheral Troubles - 330 and 340	
330 System peripheral	TROUBLE - Sys. Peripheral - #
331 Polling loop open	TROUBLE - Polling Loop Open
332 Polling loop short	TROUBLE - Polling Loop Short
333 Expansion module failure	TROUBLE - Exp. Module Fail - #
334 Repeater failure	TROUBLE - Repeater Failure - #
335 Local printer paper out	TROUBLE - Printer Paper Out
336 Local printer failure	TROUBLE - Local Printer

EVENT	MESSAGE		
Communication Troubles - 350 and 360			
350 Communication	TROUBLE - Communication Trouble		
351 Telco 1 fault	TROUBLE - Phone Line #1		
352 Telco 2 fault	TROUBLE - Phone Line #2		
353 Long range radio xmitter fault	TROUBLE - Radio Transmitter		
354 Fail to communicate	TROUBLE - Fail to Communicate		
355 Loss of radio supervision	TROUBLE - Radio Supervision		
356 Loss of central polling	TROUBLE - Central Radio Polling		
Protection Loop Troubles - 370			
370 Protection loop	TROUBLE - Protection Loop - #		
371 Protection loop open	TROUBLE - Protection Loop Open - #		
372 Protection loop short	TROUBLE - Protection Loop Short - #		
373 Fire Trouble	TROUBLE - Fire Loop - #		
Sensor Troubles - 380			
380 Sensor trouble	TROUBLE - Sensor Trouble - #		
381 Loss of supervision - RF	TROUBLE - RF Sensor Supervision - #		
382 Loss of supervision - RPM	TROUBLE - RPM Sensor Supervision - #		
383 Sensor tamper	TROUBLE - Sensor Tamper - #		
384 RF transmitter low battery	TROUBLE - RF Sensor Batt. - #		
Open/Close - 400			
400 Open/Close	OPENING	CLOSING	
401 Open/Close by user	OPENING - User #	CLOSING - User #	
402 Group Open/Close	OPENING - Group User #	CLOSING - Group User #	
403 Automatic Open/Close	OPENING - Automatic	CLOSING - Automatic	
404 Late Open/Close	OPENING - Late	CLOSING - Late	
405 Deferred Open/Close	Opening not used	Closing not used	
406 Cancel	OPENING - Cancel	Closing not used	
407 Remote arm/disarm	OPENING - Remote	CLOSING - Remote	
408 Quick arm	Opening not applicable	CLOSING - Quick arm	
409 Keyswitch Open/Close	OPENING - Keyswitch	CLOSING - Keyswitch	
Remote Access - 410			
411 Callback request made	REMOTE - Callback Requested		Restore not applicable
412 Success - download/access	REMOTE - Successful Access		Restore not applicable
413 Unsuccessful access	REMOTE - Unsuccessful Access		Restore not applicable
414 System shutdown	REMOTE - System Shutdown		
415 Dialer shutdown	REMOTE - Dialer Shutdown		
416 Success - upload/access	REMOTE - Successful Access		Restore not applicable
Access Control - 420			
421 Access denied	ACCESS - Access Denied - User #		Restore not used
422 Access report by user	ACCESS - Access Gained - User #		Restore not used
System Disables - 500 and 510			

EVENT	MESSAGE	
Sounder/Relay Disables - 520		
520 Sounder/Relay disable	DISABLE - Sounder/Relay - #	
521 Bell 1 disable	DISABLE - Bell/Siren - #1	
522 Bell 2 disable	DISABLE - Bell/Siren - #2	
523 Alarm relay disable	DISABLE - Alarm Relay	
524 Trouble relay disable	DISABLE - Trouble Relay	
525 Reversing relay disable	DISABLE - Reversing Relay	
526 Bell 3 disable	DISABLE - Bell/Siren - #3	
527 Bell 4 disable	DISABLE - Bell/Siren - #4	
System Peripheral Disables - 530 and 540		
Communication Disables - 550 and 560		
551 Dialer disabled	DISABLE - Dialer Disable	
552 Radio transmitter disabled	DISABLE - Radio Disable	
Bypasses - 570		
570 Zone bypass	BYPASS - Zone Bypass - #	
571 Fire bypass	BYPASS - Fire Bypass - #	
572 24-Hour zone bypass	BYPASS - 24-Hour Bypass - #	
573 Burglar bypass	BYPASS - Burg. Bypass - #	
574 Group bypass	BYPASS - Group Bypass - #	
Test Misc. - 600		
601 Manual trigger test	TEST - Manually Triggered	Restore not applicable
602 Periodic test report	TEST - Periodic	Restore not applicable
603 Periodic RF transmission	TEST - Periodic Radio	Restore not applicable
604 Fire test	TEST - Fire Test	Restore not used
605 Status report to follow	STATUS - Status Follows	Restore not applicable
606 Listen-in to follow	LISTEN - Listen-in Active	Restore not applicable
607 Walk test mode	TEST - Walk Test Mode	
608 System abnormal test	TEST - System Abnormal Test	

APPENDIX C Central Station Points

The DACT-UD transmits Central Station Reports in a numerical format which indicates the FACP addressable device address that is reporting and the SLC loop on which it resides. The following table indicates the Central Station Report (CS Report) number that will be transmitted and the addressable device address and SLC loop number it represents.

Table C.1 Addressable DETECTORS on SLC Loop 1

CS Report	Detector Address Loop 1	CS Report	Detector Address Loop 1	CS Report	Detector Address Loop1	CS Report	Detector Address Loop 1	CS Report	Detector Address Loop 1
001	001	033	033	065	065	097	097	129	129
002	002	034	034	066	066	098	098	130	130
003	003	035	035	067	067	099	099	131	131
004	004	036	036	068	068	100	100	132	132
005	005	037	037	069	069	101	101	133	133
006	006	038	038	070	070	102	102	134	134
007	007	039	039	071	071	103	103	135	135
008	008	040	040	072	072	104	104	136	136
009	009	041	041	073	073	105	105	137	137
010	010	042	042	074	074	106	106	138	138
011	011	043	043	075	075	107	107	139	139
012	012	044	044	076	076	108	108	140	140
013	013	045	045	077	077	109	109	141	141
014	014	046	046	078	078	110	110	142	142
015	015	047	047	079	079	111	111	143	143
016	016	048	048	080	080	112	113	144	144
017	017	049	049	081	081	113	113	145	145
018	018	050	050	082	082	114	114	146	146
019	019	051	051	083	083	115	115	147	147
020	020	052	052	084	084	116	116	148	148
021	021	053	053	085	085	117	117	149	149
022	022	054	054	086	086	118	118	150	150
023	023	055	055	087	087	119	119	151	151
024	024	056	056	088	088	120	120	152	152
025	025	057	057	089	089	121	121	153	153
026	026	058	058	090	090	122	122	154	154
027	027	059	059	091	091	123	123	155	155
028	028	060	060	092	092	124	124	156	156
029	029	061	061	093	093	125	125	157	157
030	030	062	062	094	094	126	126	158	158
031	031	063	063	095	095	127	127	159	159
032	032	064	064	096	096	128	128		

Table C.2 Addressable MODULES on SLC Loop 1

CS Report	Module Address Loop 1	CS Report	Module Address Loop 1	CS Report	Module Address Loop1	CS Report	Module Address Loop 1	CS Report	Module Address Loop 1
160	001	192	033	224	065	256	097	288	129
161	002	193	034	225	066	257	098	289	130
162	003	194	035	226	067	258	099	290	131
163	004	195	036	227	068	259	100	291	132
164	005	196	037	228	069	260	101	292	133
165	006	197	038	229	070	261	102	293	134
166	007	198	039	230	071	262	103	294	135
167	008	199	040	231	072	263	104	295	136
168	009	200	041	232	073	264	105	296	137
169	010	201	042	233	074	265	106	297	138
170	011	202	043	234	075	266	107	298	139
171	012	203	044	235	076	267	108	299	140
172	013	204	045	236	077	268	109	300	141
173	014	205	046	237	078	269	110	301	142
174	015	206	047	238	079	270	111	302	143
175	016	207	048	239	080	271	113	303	144
176	017	208	049	240	081	272	113	304	145
177	018	209	050	241	082	273	114	305	146
178	019	210	051	242	083	274	115	306	147
179	020	211	052	243	084	275	116	307	148
180	021	212	053	244	085	276	117	308	149
181	022	213	054	245	086	277	118	309	150
182	023	214	055	246	087	278	119	310	151
183	024	215	056	247	088	279	120	311	152
184	025	216	057	248	089	280	121	312	153
185	026	217	058	249	090	281	122	313	154
186	027	218	059	250	091	282	123	314	155
187	028	219	060	251	092	283	124	315	156
188	029	220	061	252	093	284	125	316	157
189	030	221	062	253	094	285	126	317	158
190	031	222	063	254	095	286	127	318	159
191	032	223	064	255	096	287	128		

Table C.3 Addressable DETECTORS on SLC Loop 2

CS Report	Detector Address Loop 2	CS Report	Detector Address Loop 2	CS Report	Detector Address Loop2	CS Report	Detector Address Loop 2	CS Report	Detector Address Loop 2
319	001	351	033	383	065	415	097	447	129
320	002	352	034	384	066	416	098	448	130
321	003	353	035	385	067	417	099	449	131
322	004	354	036	386	068	418	100	450	132
323	005	355	037	387	069	419	101	451	133
324	006	356	038	388	070	420	102	452	134
325	007	357	039	389	071	421	103	453	135
326	008	358	040	390	072	422	104	454	136
327	009	359	041	391	073	423	105	455	137
328	010	360	042	392	074	424	106	456	138
329	011	361	043	393	075	425	107	457	139
330	012	362	044	394	076	426	108	458	140
331	013	363	045	395	077	427	109	459	141
332	014	364	046	396	078	428	110	460	142
333	015	365	047	397	079	429	111	461	143
334	016	366	048	398	080	430	113	462	144
335	017	367	049	399	081	431	113	463	145
336	018	368	050	400	082	432	114	464	146
337	019	369	051	401	083	433	115	465	147
338	020	370	052	402	084	434	116	466	148
339	021	371	053	403	085	435	117	467	149
340	022	372	054	404	086	436	118	468	150
341	023	373	055	405	087	437	119	469	151
342	024	374	056	406	088	438	120	470	152
343	025	375	057	407	089	439	121	471	153
344	026	376	058	408	090	440	122	472	154
345	027	377	059	409	091	441	123	473	155
346	028	378	060	410	092	442	124	474	156
347	029	379	061	411	093	443	125	475	157
348	030	380	062	412	094	444	126	476	158
349	031	381	063	413	095	445	127	477	159
350	032	382	064	414	096	446	128		

Table C.4 Addressable MODULES on SLC Loop 2

CS Report	Modules Address Loop 2	CS Report	Modules Address Loop 2	CS Report	Modules Address Loop2	CS Report	Modules Address Loop 2	CS Report	Modules Address Loop 2
478	001	510	033	542	065	574	097	606	129
479	002	511	034	543	066	575	098	607	130
480	003	512	035	544	067	576	099	608	131
481	004	513	036	545	068	577	100	609	132
482	005	514	037	546	069	578	101	610	133
483	006	515	038	547	070	579	102	611	134
484	007	516	039	548	071	580	103	612	135
485	008	517	040	549	072	581	104	613	136
486	009	518	041	550	073	582	105	614	137
487	010	519	042	551	074	583	106	615	138
488	011	520	043	552	075	584	107	616	139
489	012	521	044	553	076	585	108	617	140
490	013	522	045	554	077	586	109	618	141
491	014	523	046	555	078	587	110	619	142
492	015	524	047	556	079	588	111	620	143
493	016	525	048	557	080	589	113	621	144
494	017	526	049	558	081	590	113	622	145
495	018	527	050	559	082	591	114	623	146
496	019	528	051	560	083	592	115	624	147
497	020	529	052	561	084	593	116	625	148
498	021	530	053	562	085	594	117	626	149
499	022	531	054	563	086	595	118	627	150
500	023	532	055	564	087	596	119	628	151
501	024	533	056	565	088	597	120	629	152
502	025	534	057	566	089	598	121	630	153
503	026	535	058	567	090	599	122	631	154
504	027	536	059	568	091	600	123	632	155
505	028	537	060	569	092	601	124	633	156
506	029	538	061	570	093	602	125	634	157
507	030	539	062	571	094	603	126	635	158
508	031	540	063	572	095	604	127	636	159
509	032	541	064	573	096	605	128		

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