



by Honeywell

# 411UDAC Digital Alarm Communicator Transmitter

## Description

The Gamewell-FCI, 411UDAC is a compact multi-faceted, stand-alone Fire Alarm Communicator designed for use with a variety of fire and non-fire applications. It provides four channels (inputs) that accept signals from the following devices:

- waterflow devices
- pull stations
- two- and four-wire smoke detectors
- other normally-open contact devices

The 411UDAC is a cost-effective solution used with applications that require an existing (or new) Fire Alarm Control or Security Panel that can transmit system status to an off-site monitoring facility for Central or Remote Station compliance.

Due to its flexible programming options, the 411UDAC is ideal for use as a stand-alone unit to monitor the following:

- sprinkler systems used for waterflow and supervisory conditions.
- water level, gas detection, loss of air flow processes.
- normally-open contact devices.

It uses fifteen selectable transmission formats, (including the Ademco Contact ID). This large number of formats ensure the 411UDAC's compatibility with all Digital Alarm Communicator Receivers (DACR). You can program on-site using a hand-held programmer (PRO-411) or you can program remotely using an optional PK-CD Upload/Download software package.

**Note:** The PK-CD Upload/Download software also permits system interrogation and revision from a remote site.

### Phone Line Connections

There are two modular phone connections provided on the inside door of the 411UDAC. They provide connections for two separate telephone lines using the standard RJ31X jacks. Both telephone lines are constantly supervised for proper voltage and current. If one phone line goes into fault, and the remaining phone line remains operational, a report is sent to the central or remote station via the operable phone line.

## Digital Alarm Communicator Transmitter



411UDAC

- Complies with Industry-first, UL recognized, "dialer run-away" prevention features.
- Provides one Style Y (Class B) Notification Appliance (bell) Circuit (NAC).
- Support 1.0 Amp of notification appliance power.
- Has a coded (temporal) notification appliance (bell, signal) circuit.
- Contains four supervised monitoring channels (inputs):
  - Three fixed Style B (Class B)
  - One Style A (Class A) or style B (Class B).
- Inputs may be individually programmed for stand-alone applications or programmed when monitoring a host control panel for the following applications:
  - Two- and four-wire smoke detectors (Inputs 1 and 3)
  - Pull Station
  - Normally-open contacts
  - Supervisory
  - Supervisory (auto-resettable)
  - Process Monitoring
  - Process Monitoring (auto-resettable)
  - Host Panel Trouble (slave mode)
  - Waterflow (silenceable and non-silenceable)
- Includes seven LEDs with six LEDs visible through door:
  - AC Power
  - System Trouble
  - System Alarm
  - Supervisory
  - Communication Fail
  - Battery Trouble
  - Earth fault (not visible with door closed).
- 12 VDC operation.
- Capable of 60 hours standby.
- Offers dual telephone lines:
  - Dual telephone line voltage detect
  - Alternating phone lines 24-hour test messages (programmable).

SIGNALING



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328-94-E Vol. VI



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### GAMEWELL-FCI

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## Communication Formats

- 0: 4+1 Ademco Express Standard, DTMF, 1400/2300 ACK.
- 1: 4+2 Ademco Express Standard, DTMF, 1400/2300 ACK.
- 2: 3+1 Standard 1800 Hz Carrier, 2300 Hz ACK.
- 3: 3+1 Expanded 1800 Hz Carrier, 2300 Hz ACK.
- 4: 3+1 Standard 1900 Hz Carrier, 1400 Hz ACK.
- 5: 3+1 Expanded 1900 Hz Carrier, 1400 Hz ACK.
- 6: 4+1 Standard 1800 Hz Carrier, 2300 Hz ACK.
- 7: 4+1 Expanded 1800 Hz Carrier, 2300 Hz ACK.
- 8: 4+1 Standard 1900 Hz Carrier, 1400 Hz ACK.
- 9: 4+1 Expanded 1900 Hz Carrier, 1400 Hz ACK.
- A: 4+2 Standard 1800 Hz Carrier, 2300 Hz ACK.
- B: 4+2 Expanded 1800 Hz Carrier, 2300 Hz ACK.
- C: 4+2 Standard 1900 Hz Carrier, 1400 Hz ACK.
- D: 4+2 Expanded 1900 Hz Carrier, 1400 Hz ACK.
- E: Contact ID, DTMF, 1400/2300 ACK.
- F: Future use.

## Programming

To program the 411UDAC, use an optional digital programming unit with a keypad, model PRO-411. This unit can also be used to troubleshoot and to access the various modes of operation. Off-site programming can be accomplished with the optional PK-CD programming software. The PKCD enables a user to program the 411UDAC off-site via the public switched telephone network using any personal computer with the following Windows applications.

- Windows® 3.1 or higher
- Windows® 95 and a 1200-baud Hayes® compatible modem.

## Housing

The cabinet is red and measures 14.5" (36.83 cm) high x 12.5" (31.75 cm) wide and 2.875" (7.303 cm) deep. It provides space for up to two 7 A.H. batteries (order batteries separately). An optional dress panel, DP-2, which mounts inside the cabinet, is available. The dress panel restricts access to the system wiring but allows access to the membrane switch panel.

## Transformer Assembly

One transformer is shipped in the same carton as the cabinet and main circuit board but not mounted in the cabinet. The transformer should be installed before the cabinet is mounted to the wall.

## Auxiliary Relay

Two optional Form-C relays (411RK) are available for installation on the 411UDAC main circuit board. The relays are programmable for activation on fire alarm, host panel trouble, fire supervisory, process monitoring, total communications failure, and DACT trouble. Relay contact rating: 2.0 amps @ 30 VDC (resistive).

## Features (Continued)

- Complies with the new long-distance Carrier Access Code (CAC), accepting 20-digit central station and service terminal telephone numbers.
- Fully programmed transmittal codes for fire and non-fire (e.g., process monitoring) applications.
- Industry-first, user-selectable restoral methods.
- Capable of transmitting the following DACT information, in addition to transmitting vital system status of the host control panel:
  - DACT troubles
  - Telephone line 1 and 2 voltage fault
  - Primary or secondary Central Station communication fault
  - System off normal
  - 24-hour normal test and 24-hour abnormal test
- Includes 15 popular communication formats, including the widely used Ademco Contact ID format, ensuring compatibility with virtually all DACRs.
- Local piezo sounder that signals a separate and a distinct sound for the various conditions.
- Offers the following Display options:
  - Acknowledge/System Silence & Reset switches
  - Auto Silence
  - Alarm Verification
  - Trouble Reminder (with 24-hour resound)
  - Signal Silence Inhibit
  - Real-time clock
- Optional two Form-C relays (411 RK), fully programmable to activate for the following conditions:
  - Fire alarm
  - Host Control Panel Trouble
  - Process Monitoring (with auto resettable)
  - Process Monitoring
  - Fire Supervisory (latching and auto resettable)
  - DACT trouble (factory default for relay)
- Optional PK-CD Remote Upload/Download Kit and DP-2 Dress Panel.

## Specifications

<b>AC Power (TB3):</b>	120 VAC, 60 Hz, 0.3 amps
<b>Wire Size:</b>	minimum 14 AWG (2.00 mm <sup>2</sup> ) with 600 V insulation
<b>Battery (lead-acid only) (J3):</b>	
<b>Maximum Charging Circuit:</b>	normal flat charge 13.7 V @ 0.6 amps
<b>Maximum Charger Capacity:</b>	14 AH battery
<b>Channels/Inputs (TB2 terminals 1 through 10):</b>	
•	Programmable channels 1 through 4.
•	Class 3 Power-Limited circuitry.
•	Fully supervised (monitored for opens, shorts, and earth faults).
<b>Normal Operating Voltage:</b>	12.0 VDC (ripple 100 mV maximum)
<b>End-of-Line Resistor:</b>	2.2K ohms, 1/2 watt (P/N 27070, UL Listed).
<b>Operation for Each Channel:</b>	
<b>Channel/Input 1</b>	Style B (Class B) two-wire smoke detector input.
<b>Channel/Input 3</b>	Style B (Class B) or Style D (Class A) two-wire smoke detector or waterflow input.

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## Specifications (Continued)

**Channel/Input 2 and Channel/Input 4** Style B (Class B) contact closure input.  
Refer to Device Compatibility Document for listed compatible devices.

### Notification Appliance Circuit:

(TB4 Terminals 1[+] and 2 [—]:

Style Y (Class B) circuit

Power-limited and supervised (monitored for opens, shorts, and earth fault).

Operating voltage nominal 13.8 VDC

Current for all external devices: 1.0 amp.

End-of-line resistor: 2.2K ohms, 1/2 watt (P/N 27070).

Refer to Device Compatibility Document for listed compatible devices.

### Two Optional Form-C Relays (TB1 Terminals 1 thru 6):

**Operating Voltage:** nominal 12 VDC.

**Contact Rating:** 2.0 amps @ 30 VDC (resistive), or  
0.5 amps @ 30 VAC.

### 12 VDC Resettable Power (TB4 Terminals 3[+] & 4 [—]):

**Operating Voltage:** nominal 12 volts.

Up to 200 mA available to power four-wire smoke detectors.

Class A Power-Limited and supervised circuitry.

Recommended maximum 50 mA

standby current:

Note: For power supply and battery calculations, refer to the 411UDAC Manual.

### Operating Power:

**Primary Power Source (AC):** AC power connections are made inside the 411UDAC cabinet. The primary power source is 120 VAC, 60 Hz, 0.3 amps.

### Secondary Power Source (Batteries):

- One 12-volt battery can provide power for up to 7 AH applications.
- Two 12-volt, 7 AH batteries (in parallel) can provide power for up to 14 AH applications (60-hour standby).

The battery charger is current-limited and capable of recharging sealed lead-acid-type batteries. The charger shuts off when the system is in alarm. Refer to the battery calculations table in the 411UDAC manual to determine the correct battery rating.

## Ordering Information

### Part Number Description

<b>411UDAC</b>	Four-channel, dual-line, stand-alone or slave Fire Alarm Communicator. Includes housing, operating and programming instructions. Use PRO-411 (below) hand-held DACT programmer for local programming; or PK-411UD (below) Windows®-based programming software for remote programming and real-time diagnostics.
<b>DP-2</b>	Front dress panel.
<b>PRO-411</b>	Optional hand-held DACT programmer which can be used to troubleshoot and program the 411UDAC, as well as access the various modes of operation.
<b>PK-CD</b>	Remote upload/download programming software kit. The PK-CD enables a user to program the 411UDAC off-site via the public switched telephone network using any personal computer with any of the following Windows applications. <ul style="list-style-type: none"> <li>• Windows® 3.1 or greater</li> <li>• Windows® 95 and a 1200-baud Hayes®-compatible modem</li> </ul>
<b>411RK</b>	Optional dry auxiliary Form-C relays, with contacts rated for either of the following: <ul style="list-style-type: none"> <li>• 2.0 amps @ 30 VDC (resistive)</li> <li>• 0.5 amps @ 30 VAC (resistive)</li> </ul>
<b>MCBL-7</b>	DACT phone cord, seven feet long (two required).
<b>BAT-1270</b>	Battery, 12-volt, 7.0 AH (one required for 24-hour systems; two [wired in parallel] required for 60-hour systems).
<b>17062</b>	Gamewell-FCI key.
<b>17066</b>	Gamewell-FCI lock.

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## Compatible UL-Listed Receivers

Table 1 shows the UL-listed receivers compatible with the 411UDAC.

	Format # (addresses 16 & 42)	Ademco 685 (1)	Silent Knight 9000	ITI CS4000 (3)	FBI CP220FB	Osborne Hoffman Models 1 & 2	Radionics 6000/6500 (5)	Sescoa 3000R (7)	SurGuard MLR-2 (9)
0	4+1 Ademco Express	√			√				√
1	4+2 Ademco Express	√			√	√ (8)		√	√
2	3+1/Standard/1800/2300	√	√ (2)	√	√ (4)	√	√ (5,6)	√	√
3	3+1/Expanded/1800/2300	√	√ (2)	√	√ (4)	√		√	√
4	3+1/Standard/1900/1400	√	√ (2)		√ (4)	√		√	√
5	3+1/Expanded/1900/1400	√	√ (2)		√ (4)	√		√	√
6	4+1/Standard/1800/2300	√	√ (2)	√	√ (4)	√	√ (5)	√	
7	4+1/Expanded/1800/2300	√	√ (2)		√ (4)	√		√	√
8	4+1/Standard/1900/1400	√	√ (2)		√ (4)	√		√	√
9	4+1/Expanded/1900/1400	√	√ (2)		√ (4)	√		√	√
A	4+2/Standard/1800/2300	√	√ (2)	√	√ (4)	√	√ (5)	√	√
B	4+2/Expanded/1800/2300	√	√ (2)		√ (4)	√		√	√
C	4+2/Standard/1900/1400	√	√ (2)		√ (4)	√		√	√
D	4+2/Expanded/1900/1400	√	√ (2)		√ (4)	√		√	√
E	Ademco Contact ID	√				√			√
<b>KEY</b>									
(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)	Model 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.								

**Table 1: Compatible UL-Listed Receivers**

### GAMEWELL-FCI