411UDAC Rev 2

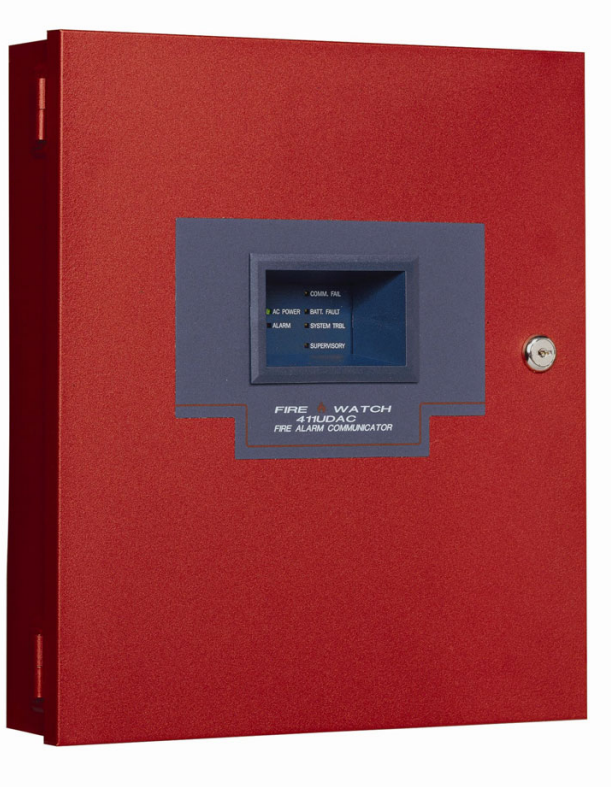
Fire Alarm Communicator

NOTIFIER® by Honeywell

Communicators

General

The Fire-Watch 411UDAC Rev 2 is a compact, multifaceted, stand-alone or slave Fire Alarm Communicator designed for a variety of fire and non-fire applications. It provides four channels (inputs) that accept waterflow devices, two-wire and four-wire smoke detectors, pull stations, and other normally-open contact devices. The 411UDAC is a cost-effective, sidecar solution for applications that require transmission of system status to an off-site monitoring facility for Central or Remote Station compliance. Due to its extremely flexible programming options, the 411UDAC is also ideal for use as a stand-alone unit to monitor: sprinkler systems for waterflow and supervisory conditions; processes (i.e., water level, gas detection, loss of air flow); and normally-open contact devices. With fifteen selectable transmission formats, including Ademco Contact ID, compatibility with virtually all Digital Alarm Communicator Receivers (DACR) is ensured. Programming can be accomplished on-site with a hand-held programmer (PRO-411), or remotely utilizing the optional PK-411UD Windows®-based remote upload/download software package. The PK-411UD upload/download software also permits system interrogation and revision from a remote site. The PK-411UD is part of the PK-CD utility.



Features

- Typical applications include:
  - standalone sprinkler monitoring
  - slave communicator for FACPs not equipped with a dialer
- Four supervised monitoring channels (inputs)
- Three fixed Style B (Class B) and one Style A (Class A) or Style B (Class B)
- Inputs may be individually programmed for stand-alone applications, or when monitoring a host control panel, for:
  - Two-wire or four-wire smoke detectors (Inputs 1 and 3)
  - Pull station
  - Normally-Open contacts
  - Host panel trouble (slave mode)
  - Supervisory
  - Supervisory (autoresettable)
  - Waterflow (silenceable)
  - Waterflow (non-silenceable)
- One Style Y (Class B) Notification Appliance (bell)
- Circuit (NAC)
- 1.0 Amp notification appliance power
- Coded (temporal) notification appliance (bell, signal) circuit
- 12 VDC operation
- Capable of 60 hours of standby
- Seven individual LEDs; six visible through door:
  - AC Power
  - System Trouble
  - System Alarm
  - Supervisory
  - Communication Fail
  - Battery Trouble
  - Earth Fault (not visible with door closed)
- Dual telephone lines:
  - Dual telephone line voltage detect
  - Alternating phone lines for 24-hour test messages (programmable)
- Industry-first, UL recognized, “dialer runaway” prevention feature
- Long-distance Carrier Access Code (CAC) compliant, accepting 20-digit central station and service terminal telephone numbers
- Industry-first, user-selectable restoral methods
- Fully programmable transmittal codes for fire and non-fire (e.g., process monitoring) applications
- Capable of transmitting the following DACT information, in addition to 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
  - 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 with separate and distinct sounds for various conditions

- Acknowledge/System Silence and Reset switches
- Alarm verification
- Signal silence inhibit
- Autosilence
- Trouble reminder (with 24-hour resound)
- Real-time clock
- Two Form-C relays, fully programmable to activate for the following conditions:
  - Fire alarm
  - Host control panel trouble
  - Total communication trouble
  - Fire supervisory (latching)
  - Fire supervisory (autoresettable)
  - DACT trouble (factory default for relay)
- Optional PK-411UD Remote Upload/Download Kit

Housing

The cabinet is red and measures 14.5" (36.83 cm) high x 12.875" (32.7 cm) wide and 4.5" (11.43 cm) deep. It provides space for up to two 7 AH batteries (order batteries separately).

Phone Line Connections

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

Communications 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

Specifications

This digital communicator/transmitter has been designed to comply with standards set forth by the following regulatory agencies:

- Underwriters Laboratories, Inc.
- NFPA 72 National Fire Alarm Code

FCC Registration: 1W6AL04B411UDAC

Ringer Equivalence: 0.4 B

PROGRAMMING: An optional digital programming unit with a keypad, model PRO-411, is available for programming the 411UDAC. It is also used for troubleshooting and accessing the various modes of operation. Off-site programming can be accomplished with the optional PK-411UD. The PK-411UD enables a user to program the 411UDAC off-site via the public switched telephone network using any personal computer with Windows XP or higher and a 1200-baud Hayes® compatible modem.

General Specifications:

AC Power (TB3)**:** 120 VAC, 60 Hz, 0.7 amps

Wire size: Minimum 14 AWG (2.00 mm²) with 600 V insulation

Battery (Lead-Acid Only) (J3)**:**

Maximum charging circuit: Normal float charge 13.6 V @ 3.15 amps

Maximum charger capacity: 14 AH battery

Channels/Inputs (TB2 Terminals 1 through 10)**:**

- Programmable Channels 1 through 4
- Power-limited circuitry
- Fully supervised (monitored for opens, shorts, and earth faults)
- Normal operating voltage: 12.0 VDC (ripple 400 mV maximum)
- End-of-line resistor: 2.2K ohms, 1/2 watt (part # 27070, UL listed)

Operation for each channel:

- Channel/Input 1, Style B (Class B) two-wire or four-wire smoke detector input and Channel/Input 3, Style B (Class B) two-wire or four-wire smoke detector input or Style D (Class A) waterflow input
- Channel/Input 2 and Channel/Input 4 Style B (Class B) contact closure input
- Refer to the 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 the Device Compatibility Document for listed compatible devices.

Form-C Relays (TB1 Terminals 1 through 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[+] and 4[–])**:**

- Operating voltage: nominal 12 volts
- Up to 200 mA available to power four-wire smoke detectors
- Power-limited and supervised circuitry
- Recommended maximum standby current: 50 mA

NOTE: *1) 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, 0.7 amps.

Secondary Power Source (Batteries)**:** One 12-volt battery can provide power for up to 7 A.H. applications. Two 12-volt, 7 A.H. batteries (in parallel) can provide power for up to 14 A.H. 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.

Agency Listings And Approvals

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL Listed:** S624
- **CSFM:** 7300-0075:0174
- **MEA:** 328-94-E Volume VI

Product Line Information

411UDAC: 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

PRO-411: Optional hand-held DACT programmer which can be used to troubleshoot and program the 411UDAC, as well as access the various modes of operation

PK-CD: Contains PK-411UD programming software. The PK-411UD enables a user to program the 411UDAC off-site via the public switched telephone network using a personal computer

TR-6-R: Optional Trim Ring

MCBL-7: DACT phone cord, seven feet long (two required)

BAT-1270: Battery, 12-volt, 7.0 AH (one required for 24-hour systems; two (wired in parallel) required for 60-hour systems

The following table contains UL listed receivers compatible with the 411UDAC's onboard DACT.

Format # (Addresses 20 and 50)		FBI CP220FB (1)	Ademco 685 (2)	Silent Knight 9000 (3)	Silent Knight 9800 (4)	Osborne Hoffman 2000E (5)	Radionics 6600 (6)	Surgard System III (7)	Surguard MLR-2 (8)	Surguard MR-2000 (9)	Ademco MX8000 (10)
0	4+1 Ademco Express	✔	✔		✔	✔	✔	✔	✔	✔	✔
1	4+2 Ademco Express	✔	✔		✔	✔	✔	✔	✔	✔	✔
2	3+1/Standard/1800/2300	✔	✔	✔	✔	✔				✔	✔
3	3+1/Expanded/1800/2300	✔	✔	✔	✔	✔				✔	✔
4	3+1/Standard/1900/1400	✔	✔	✔	✔	✔				✔	✔
5	3+1/Expanded/1900/1400	✔	✔	✔	✔	✔				✔	✔
6	4+1/Standard/1800/2300		✔	✔	✔	✔		✔	✔	✔	✔
7	4+1/Expanded/1800/2300		✔	✔	✔	✔		✔	✔	✔	✔
8	4+1/Standard/1900/1400		✔	✔	✔	✔		✔	✔	✔	✔
9	4+1/Expanded/1900/1400		✔	✔	✔	✔		✔	✔	✔	✔
A	4+2/Standard/1800/2300	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
B	4+2/Expanded/1800/2300	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
C	4+2/Standard/1900/1400	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
D	4+2/Expanded/1900/1400	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
E	Ademco Contact ID	✔	✔		✔	✔	✔	✔	✔	✔	✔

Compatible UL Listed Receivers

(1) with version 3.9 software

(2) with 685-8 line card with revision 4.4d software

(3) with 9002 Line Card revision 9035 software or 9032 Line Card with 9326A software

(4) with 124077V2.00 receiver and 126047 line card revision M

(5) with V.7301 receiver software

(6) with 01.01.03 receiver software and line card 01.01.03

(7) Surgard System III software version 1.6

(8) Surgard MLR-2 software version 1.86

(9) with DSP4016 and V1.6 line card

(10) with 124060V206B and 124063 line card revision B

For more information, contact Notifier. Phone: (203) 484-7161, FAX: (203) 484-7118.
www.notifier.com