



ACU-340

The WAVES® Autonomous Control Unit (ACU-340) is an indoor Mass Notification System (MNS) for individual buildings.

Description

Cooper Notification's WAVES (Wireless Audio Visual Emergency System) Autonomous Control Unit (ACU-340) is a supervised Individual Building Emergency Communications System, which provides supervised paging, background music, messaging, and emergency voice communications with 24 VDC battery backup. The ACU-340 is a UFC-compliant (Unified Facilities Criteria) Individual Building System, which provides full control of building notification appliances such as loudspeakers and strobe lights. The ACU-340, which includes a WAVES transceiver, interface, and antenna, can be controlled and monitored by a base-wide WAVES Mass Notification System (MNS). The WAVES base station can send messages to one ACU-340 or multiple ACUs and tie the indoor system to an outdoor MNS.

This single channel system is capable of delivering 40 watts of supervised high fidelity audio power and 2 amps of supervised 24 VDC synchronized strobe power. It comes standard with an on-board digital voice messaging system with 8 standard messages, a hand-held microphone, power supply/battery charger and numerous additional features. In a base-wide mass notification mode, the TRX-401 functions as the audio and data input/output link.

The ACU-340 is expandable to 5280 watts utilizing the ACU-PB80 (80 watts and 4 amps of strobe power), the ACU-PB160 (160 watts) or ACU-PB320 (320 watts) supervised audio power boosters. Additional expansion options include audio splitters, addressable paging splitter and telephone zone controller; supervised volume control and remote microphone; and a remote microphone expansion module.

The ACU-340 integrates with fire alarm systems and provides a signal for temporary deactivation of fire-alarm audible notification devices as required by UFC. The fire alarm system appliances are reactivated after the mass notification voice messages are delivered.

The ACU-340 also features real-time monitoring and reporting of all system components and is compatible with Cooper Notification power supply, speakers, strobes, and clusters.

Features & Benefits

- Can be fully integrated with a WAVES MNS for a base-wide or campus-wide indoor and outdoor alerting system
- Integrates with fire alarm systems
- Approvals: UL Standard 864, 9th edition; UL Standard 1711; California State Fire Marshal; and New York City, FCC Part 15
- OSHA 1910.165; ADA Compliant; and UFC compliant
- Continuously monitoring itself. BIT (Built-In Test) information from the WAVES ACU is transmitted to the WAVES Base Station
- Option to program predefined scripts in response to ACU fault and alarm events
- Full system supervision
- 8 digitally recorded voice messages
- Live microphone override

Applications

- Mass Notification
- Emergency Notification
- Voice Evacuation
- Indoor Warning
- Natural Disaster Alerting/Relief
- Industrial Disaster/Alerting/Relief
- General Paging
- Background Music



Specifications

Performance

Audio Power: 40W supervised audio power
Speaker System: 25V or 70.7V, selectable

Frequency Response

Voice: 200-10 kHz +/- 3dB; meets UL Voice Evacuation Requirement of 800 - 2800 Hz
Microphone: 225-8kHz +/- 3dB; meets UL Voice Evacuation Requirement of 800 - 2800 Hz
Signal to Noise Ratio: better than 70 dB
Dynamic Range: better than 65 dB
Total Harmonic Distortion: less than 2%
Stand by Current Draw: 140 mA
Alarm Current Draw: 4.7 amps

Electrical

AC: 24 VDC rechargeable battery back-up power circuitry built-in
Batteries: Can be housed in the enclosure (Up to two 12 volt, 12 ampere hour batteries; Actual battery size required will depend on speaker and/or strobe load.)
Strobe Power: 2 amps of synchronized strobe power on board with the option of adding additional out board strobe power supply

Physical

Height: 21" (53 cm)
Width: 16" (41 cm)
Depth: 6" (15 cm)
Weight: 36lbs. (16 kg) (without batteries)
Door Lock: Cooper Notification key lock

Codes and Standards

Fire Code applications: The system is listed under UL Standard 864, 9th edition delivering supervised audio and voice messaging with strobes and notification appliance circuits (NAC) for visual alerting.

Economic OSHA applications: The system is OSHA 1910.165 compliant; this means that it does not require reliability inspections every two months, or the required spare parts inventory.

UFC Compliant

American with Disabilities (ADA) compliant: By synchronizing both audio and visual message transmissions to strobe lights.

Architect & Engineer Specifications

When specifying an Autonomous Control Unit such as Cooper Notification's ACU-340, you should require the following:

- Compliant with the Unified Facilities Criteria (UFC) for Mass Notification Systems Independent Building System.
- Provided with 8 pre-recorded emergency messages.
- Capable of field integration with WAVES® base-wide Mass Notification System, including:
 - Providing status information identified to the major system element level.
 - Remote activation of any pre-stored message.
 - Delivery of live audio from the base-wide system.
- Provide a single visual summary of the unit and connected equipment status.
- Include 2 amps of synchronized strobe power on board with the option of adding additional out board strobe power supply.
- Deliver 40W audio power with the option of adding additional outboard audio power supply.
- Be field-configurable for 25 or 70.7 Vrms operation.
- 110 or 220 VAC power.

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