NOTIFIER®
by Honeywell

May 23, 2005 DN-0740 • C-100

VAM2020 and VAM1010
Voice Alarm Multiplex
Audio System for AM2020 & AFP1010

Section: Voice Control System

GENERAL

The Voice Alarm Multiplex is a cost-effective multiplexed audio system based on the NOTIFIER AM2020 and AFP1010 Fire Alarm Control Panels (FACPs). The Voice Alarm is created by adding a Voice Command Center to the basic AM2020 or AFP1010.

The Voice Alarm Multiplex uses standard system cabinets and microprocessor technology to give each system flexible applications and reliable operation.

This data sheet only provides information on audio and telephone components for the AM2020 and AFP1010. Consult the AM2020 or AFP1010 data sheet for the basic control panel modules and features.

UL LISTED S635

ULC CS68

California State Fire Marshal 7170-0028:153

U.S. Coast Guard
161.002/273
(except AA-100, FFT-7/-7S)

FM APPROVED

Lloyd's Register TYPE APPROVED 93/00140 (E2)

City of Chicago

BSA
578-SA

MEA
289-91-E



VAM2020 in a CAB-C3 cabinet

FEATURES

- Centralized or distributed audio capability.
- Multiple channel capability for up to 8 audio channels.
- Prerecorded message using solid-state electronics. May provide different message or tones based on events.
- **NOTI•FIRE•NET**™ interface provides a peer-to-peer high speed network for over 100 nodes *(see data sheet DN-4644)*.
- Page by phone from anywhere in building.
- Remote All Call Page (RPJ-1) option.
- Large system capacity.
- Style Y or Style Z speaker circuit operation.
- Speaker and telephone on/off manual switches with custom labels.
- 30 watt, 100 watt, and 120 watt audio amplifiers with switch-mode power supplies.
- Standby amplifier network allows cost-effective backup amplifier.
- All-Call switch and indicator.
- Completely field configurable and programmable.
- Record message on-site (option).
- Zone-coded voice options available.

APPLICATIONS

The VAM2020 and VAM1010 are each designed to be used in today's high-rise buildings or other facilities which require a reliable and cost-effective voice alarm life safety system. Each system can provide automatic evacuation messages, local fire fighter paging control, and two-way communications in an emergency situation. Paging microphone, master telephone handset and control unit, coupled with a digital emergency message generator and easy-to-use operator controls, provide the AM2020 and AFP1010 with state-of-the-art emergency life safety communications.

CONSTRUCTION AND INSTALLATION

The VAM2020 and VAM1010 audio subsystems utilize modular hardware assemblies which allow the custom panel configuration to fit individual job requirements.

A key-locked, hinged front door, and deadfront panel construction allow easy access to all operator indicators and controls and prevent unauthorized access to system electronics. Multiple cabinets may be used if necessary.

All field wiring terminations use removable terminal blocks to simplify installation of wiring and testing of circuits.

This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information, contact **NOTIFIER.** Phone: (203) 484-7161 FAX: (203) 484-7118

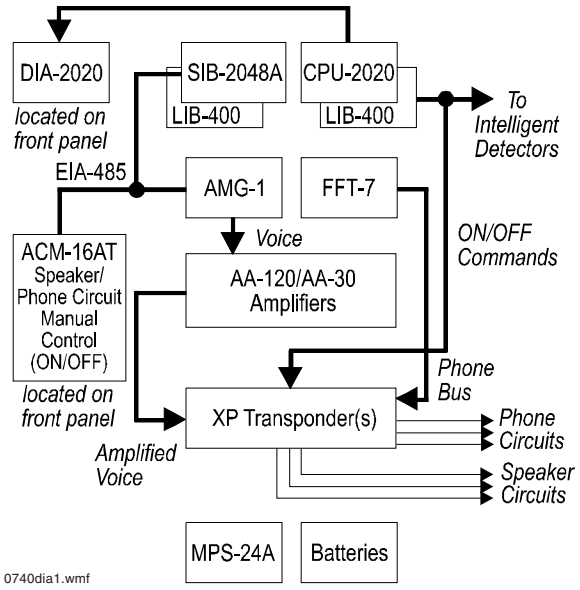
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12 Clintonville Road, Northford, Connecticut 06472

ISO 9001 CERTIFIED ENGINEERING & MANUFACTURING QUALITY SYSTEMS

Made in the U.S.A.

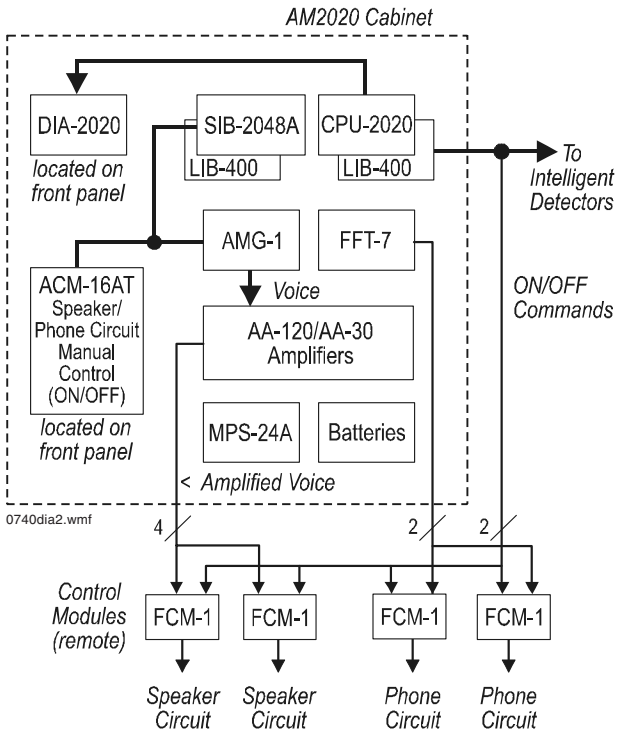
Voice System Block Diagrams

1. Centralized Audio

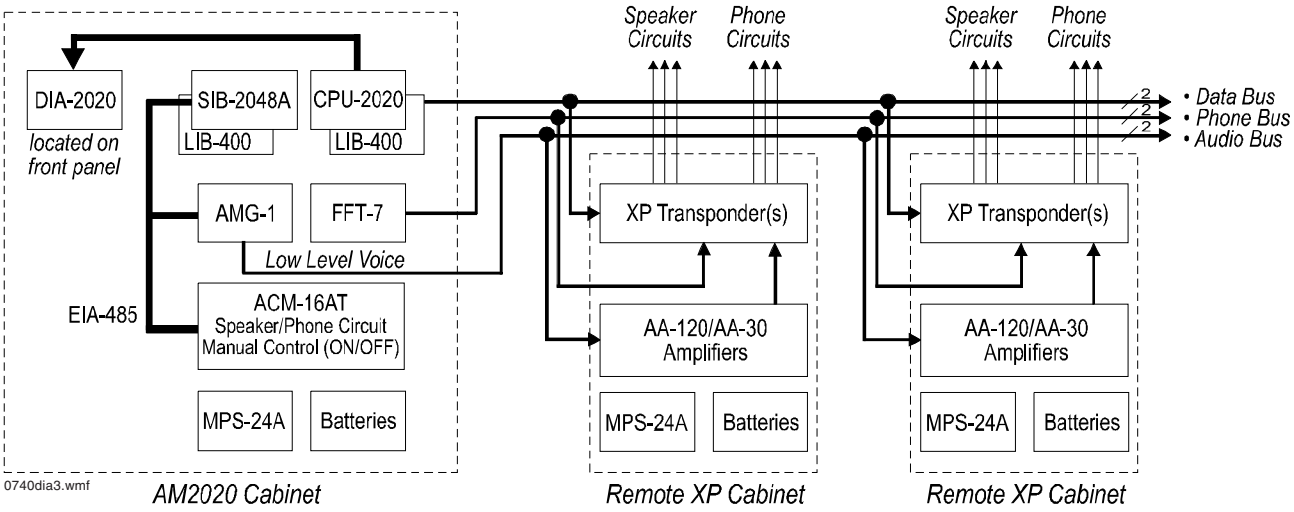


All above packaged in one cabinet or in multiple adjacent cabinets. Note that XP modules may also provide conventional two-wire detector circuits and bell/ strobe circuits.

2. Centralized Voice using Addressable Modules



3. Distributed Audio using Transponders



The AM2020 and AFP1010 systems use two methods for multiplexed voice and phone switching:

- XP Transponders *(see XP Transponder data sheet DN-0786)* allow the audio amplifier to be monitored and controlled up to 10,000 feet (3048 m) from the control panel. Audio amplifiers may be mounted within XP transponders.
- Remote control modules for simpler voice systems (Style Y speaker circuits only). Amplifiers may be mounted within the main control cabinet.

OPERATION

The VAM2020/VAM1010 series audio subsystem functions as an integral part of an AM2020 or AFP1010 Fire Alarm Control Panel. Manual or automatic alarm signals detected by the system are used to generate audio evacuation signals or messages which are distributed throughout the building.

Simple-to-use controls provide the fire fighter with a full-featured, operator controllable audio evacuation system for use in emergency situations.

Modular hardware components allow the placement of the components in the main control panel, remote transponders, or remote annunciators.

Manual selection of speaker and telephone circuits is performed with ACS Series annunciators and SIB-2048 serial interface.

All field circuits are fully supervised and are controlled through a multiplex connection to the main control panel.

The VAM2020/VAM1010 is fully field programmable and does not require any special tools or equipment. *Factory trained distributors provide expert application and start-up service for all systems.*

PRODUCT LINE INFORMATION

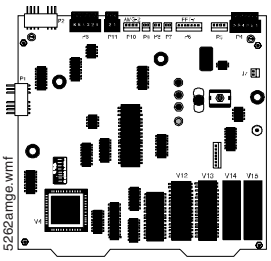
VCC-1: Voice Control Center. Provides a variety of user selectable tones on a single channel. Up to four different tones may be selected to give four unique events on a single channel. Also provides optional digital voice message capability and ***on-site*** programmable voice messages. Includes Audio Message Generator (AMG-1) with microphone, cables, dress panel, CHS-4L chassis, and instructions.

VCC-2: Voice Control Center. Single or dual channel Audio Tone Generator (ATG-2). Provides a slow whoop, Hi/Lo or steady tone on the primary channel and for dual channel applications, provides a chime or 20 pulse per minute tone on the secondary channel. Includes cables, microphone, dress panel, CHS-4L chassis, and instructions.

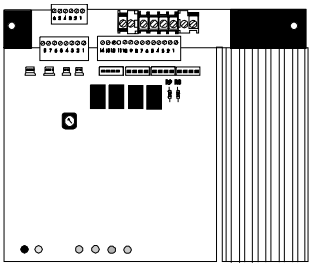
VTCC-1: Voice/Telephone Control Center. Provides all the features of the VCC-1 plus Fire Fighter's Telephone (FFT-7).

VTCC-2: Voice/Telephone Control Center. Provides all the features of the VCC-2 plus Fire Fighter's Telephone (FFT-7).

TCC-1: Telephone Control Center. Provides a stand-alone two-way Fire Fighter's Telephone (FFT-7S). Includes cables, dress panel and instructions.

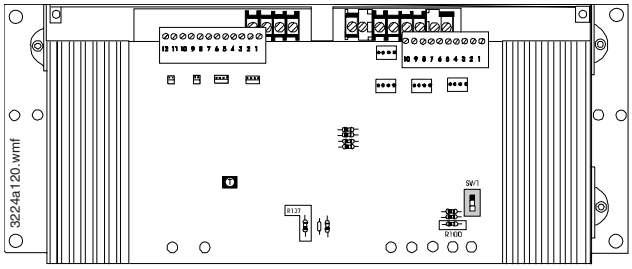


AMG-E: Audio Message Generator (without microphone). Order in addition to VCC-1 or VTCC-1 if multiple-channel system with one microphone is required. Provides digital voice generation, tone generation, preamplifier, amplifier supervision circuit, and cables. Up to 8 AMG-1 and AMG-E Audio Message Generators may be installed in an AM2020/AFP1010 system.



AA-30*: Audio Amplifier — 30 watts. Switch-mode power. Includes amplifier and audio input supervision, backup input, and automatic switchover, power supply, cables. ***NOTE:*** *The AA-30 amplifier is typically mounted in remote XP Transponders, but may be placed in the main control panel in some applications.* Requires half of CHS-4L chassis.

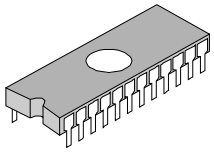
AA-120*: Audio Amplifier provides up to 120 watts of switch mode power. Includes 25 VRMS audio amplifier; power supply; battery switchover relay; audio supervision;



backup amplifier switchover; backup tone generator (HI-LO & slow whoop). No chassis required. Uses one full tier of cabinet.

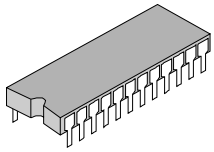
AA-100*: Audio Amplifier, 25/70.7 VRMS, 100 watts. Includes all features mentioned for the AA-120.

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VROM-(n): Factory programmed message for installation in AMG-1. Provides up to 24 seconds of evacuation message. Choose one of many standard messages available. Up to two of these messages may be installed in one AMG. Includes VROM, instructions for installation and operation, and written text of message. Contact factory or see summary of voice messages.

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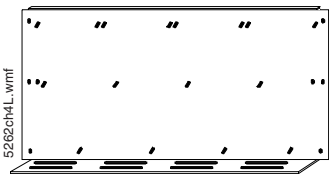
VRAM-1: Field programmed memory to be installed in AMG-1. Provides up to 24 seconds of field-programmable evacuation message on nonvolatile memory chip. Message is programmed from microphone or cassette tape. Up to two of these nonvolatile memory chips may be installed in one AMG. Includes VRAM and instructions for installation and operation.

240 VAC version available; when ordering, add an "E**" to the end of the product name.*

DP-1: Blank Dress panel. Provides deadfront panel for unused tiers or to cover AA-30, AA-120, or AMG-E modules.



CHS-4L: Low-profile four-position Chassis. Mounts two AA-30 amplifiers or one AMG-E and one AA-30.

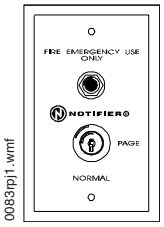


ACM-16AT, **AEM-16AT**: Used for speaker and telephone manual operation. *See separate ACS Series sheet.*

ADP-4: Annunciator Dress Panel. Mounts four ACS Modules over ICA-4 chassis.

SIB-2048A: Serial Interface Board. Required for ACS annunciators *(see AM2020 data sheet for further details)*.

RPJ-1: Remote Paging Jack. For remote all-call page. Connect jack to phone bus via a control module. Connect keyswitch to a monitor module programmed for all-call page.



AGENCY LISTINGS AND APPROVALS

See the first page of this data sheet for listing agencies and file numbers. Consult factory for latest listing status.

ARCHITECTURAL/ ENGINEERING SPECIFICATIONS

Complete specifications for the VAM2020 or VAM1010 Audio System are available from NOTIFIER.

XP TRANSPONDERS

The XP Series Transponders provide the AFP1010 and AM2020 systems with an efficient multiplex subsystem capability. The XP Transponders communicate with the AFP1010 and AM2020 Fire Alarm Control Panels and function as data-gathering panels for alarm initiating device circuits, and as remote switching centers for notification appliance circuits or relays.

The alarm Initiating Device Circuits (IDCs) of the XP Transponders may be used to monitor multiple zones of conventional two-wire smoke detectors, manual pull stations, heat detectors and other initiating devices. The Notification Appliance Circuits (NACs) may be used to control multiple zones of horns or speakers, strobes, two-way fire fighter's telephones, and dry contact relays.

Each XP Transponder communicates with, and is controlled by, one of the SLC loops of the host fire alarm control panel. The XP communicates with the control panel as a cluster of monitor and control modules, and uses one module address for every XP point. In the unlikely event that communications are lost, the Transponder will automatically switch over to a "Local Mode" operation, and function as an independent Fire Alarm Control Panel.

- Modular design and construction.
- "Local Mode" functionality for transponder stand-alone operation in the event that communications fail with host control panel.
- Up to 26 field configurable circuits.
- Configure initiating device circuits Style B or Style D.
- Configure notification appliance circuits Style Y or Style Z.
- Configure relays single Form-C or dual Form-C.
- Full LED display of Alarm per point and Trouble, with space for custom labels.
- Display of output point ON/OFF status.
- Transponder status displays and controls include: Power/ On-Line LED, Local Alarm LED, Local Trouble LED, Reset, and Lamp Test control switch.
- Power supply, charger, and battery capability in same cabinet.
- Optional audio amplifiers may be mounted in the transponder cabinet.
- Power-limited on all notification appliance and initiating device circuits.
- Rapid All-Call for system-wide paging.

VROM SERIES

The VROM Series read-only memory chips provide a preprogrammed digital voice message for the AM2020, AFP1010, or System 5000.

- Up to 24 seconds per message.
- Up to two VROM chips per AMG-1/E.
- Male or female voice options.

Over ninety different VROMs are presently offered. Examples of text for two VROM messages (one message using a male voice, one using a female voice) follow. *For further options, refer to the VROM Series data sheet.*

VROM-101 *(Male voice)*: "May I have your attention please. May I have your attention please. There has been a fire reported on your floor. There has been a fire reported on your floor. Please proceed to the stairways and exit the building. Do not use the elevators."

VROM-120 *(Female voice)*: "May I have your attention please. May I have your attention please. An alarm has been activated in the building. Please proceed to the stairways and exit the building. Do not use the elevators!"

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