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June 10, 2002

DF-52338 C-025

FIRE•COMMAND•25/50X Emergency Voice Evacuation Control

Section: Emergency Voice Evacuation

GENERAL

The Fire•Lite FIRE•COMMAND•25/50X is a state-of-the-art Emergency Voice Evacuation Control Panel (VECP), with significant technological enhancements that set it apart from other voice panels. These enhancements include full supervision in both active (alarm or music) and standby conditions, optional remote microphone, message and tone generator backups, independent power feed to each amplifier, and full output power per amplifier (including when using 70 VRMS option) generated while in low battery condition.

The FIRE•COMMAND•25/50X is suitable (but not limited to) as an adjunct to most UL listed Fire Alarm Control Panels (FACP) in applications such as restaurants, schools, auditoriums, dormitories, theaters, places of worship, motels, hotels, office buildings, and factories to name a few.

A host of field-programming options, including dual-message capability (fire, adverse weather, non-fire, multi-language), makes the FIRE•COMMAND•25/50X a very versatile voice evacuation system.

STANDARD FEATURES

- **Built-In Power Supply** - An internal power supply and battery charger is built-in to unit.
 - √ Ground fault detection with diagnostic LED (yellow).
 - √ Brownout detection with battery transfer.
 - √ Battery trouble detect with diagnostic LED (yellow).
 - √ Battery saver operation.
 - √ Independent AC loss relay provides AC loss delay per UL, for independent monitoring by DACT (2 Amps at 24 VDC).
 - √ AC power on LED (green).
 - √ 18 AH battery charging capacity — up to 7 AH may be utilized in FIRE•COMMAND enclosure. 12 AH - 18 AH require Fire•Lite BB-17F battery box.
 - √ Large, teeter-plate terminal blocks easily accept up to 12 AWG for power terminations.
- Full supervision in both active (alarm or music) or standby conditions:
 - √ Amplifier outputs
 - √ Field wiring (shorts and opens)
 - √ Message generator
 - √ All tone generators
 - √ Microphone



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6911-0075:181



Patent # 5,883,573

- Integral 25 Watt, 25 VRMS audio amplifier with single Class A/Class B speaker circuit (expandable to two with optional 25 watt expander amplifier).
- Integral digital message repeater with 'primary' and 'secondary' dual 30-second message capability or one 60-second customer message.
- Integral supervised microphone.
- Dual Command Input (trigger) circuits field selectable to be activated from 12 or 24 VDC Notification Appliance Circuit (reverse polarity) or contact closure.
- Built-in tone generators (field selectable).
- Field-selectable lead-in/trailing tone selection.
- 12 integral diagnostic LED's.
- Optional 70.7 VRMS conversion module available for each amplifier.
- Optional local playback speaker.
- Optional Remote Microphone Module FC-RM (use included interface module FC-MIM).
- Optional Distributed Audion Panel (FC-25/50DA).

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: Fire•Lite Alarms, One Fire-Lite Place, Northford, Connecticut 06472.

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OPTIONAL MODULES

FC-AAM25X

- 25 Watt, 25 V_{RMS} audio amplifier module.
- Field-programmable for system expansion to 50 Watts (providing dual 25 Watt speaker circuits) or as a backup to the primary 25 Watt amplifier, where required.
- Provides single Class A or Class B speaker circuit.
- Utilizes plug-in style terminal blocks for ease of service and maintenance.
- Fully supervised and power-limited.
- Diagnostic LEDs include: yellow trouble LED (cable fault, 70 V_{RMS} fault, amp fault) and green, amp functional LED.

FC-XRM70

- Converts 25 V_{RMS} audio outputs to 70.7 V_{RMS} for retrofit applications.
- Plugs directly on FC-AAM25X module(s), allowing independent conversion to 70.7 V_{RMS}.

FC-LPS

- Provides local digital message playback for user review of field-recorded custom messages.

STANDARDS AND CODES

The FIRE•COMMAND•25/50X complies with the following standards: **NFPA 72-1993** National Fire Alarm Code; **NFPA 101-1994** Life Safety Code; **UL 864** Standard for Control Units for Fire Alarm Systems, **UL 1711** Amplifier for Fire Protective Signaling Systems.

SPECIFICATIONS

Primary (AC) Power:

- 1.0 Amp max. @ 120 VAC, 50/60 Hz.

Secondary Power (Battery) Charging Circuit:

- Supports lead acid batteries only.
- Float charge voltage: 27.6V.
- Maximum charge current: 800 mA.
- Maximum battery charging capacity: 18AH (batteries greater than 7 AH require BB-17F battery box).

CABINET SPECIFICATIONS

Door: 18.65" (473.71 mm) high x 15.65" (397.51 mm) wide x 1.08" (27.43 mm) deep.

Backbox: 18.50" (469.90 mm) high x 15.50" (393.70 mm) wide x 4.25" (107.95 mm) deep.

Trim ring: *outer measurement* 21.62" (549.15 mm) high x 18.62" (472.95 mm) wide; *inner opening* 18.625" (473.07 mm) high x 15.625" (396.87 mm) wide; with six

holes for #8-32 screws and cutouts for hinges.

CONTROLS AND INDICATORS

LED INDICATORS

1. Power On (green).
2. ALARM (red).
3. System Trouble (yellow).
4. Microphone Trouble (yellow).
5. Message Generator Trouble (yellow).
6. Tone Generator Trouble (yellow).
7. Record (green).
8. Playback (green).

SWITCH CONTROLS

1. Record.
2. Silence.
3. Playback.
4. Manual Evacuate.
5. All Call.

ORDERING INFORMATION

FC-25/50X — 25 Watt, 25 V_{RMS}, slave Emergency Voice Evacuation Control Panel (VECP), with integral microphone, digital message generator and single Class A or Class B speaker circuit.

FC-AAM25X — Optional 25 Watt, 25 V_{RMS} Audio Amplifier Module with single Class A or Class B speaker circuit.

FC-PSM — Replacement 120 VAC, 60 Hz Power Supply/Battery Charger Module.

FC-RM - Optional remote microphone module (includes interface module FC-MIM).

FC-XRM70 — Optional 70.7 V_{RMS} Converter Module (1 required per amplifier).

FC-LPS — Optional Local Playback Speaker

FC-TR — Trim Ring — semi-flush mounting

FC-Microphone — Replacement microphone

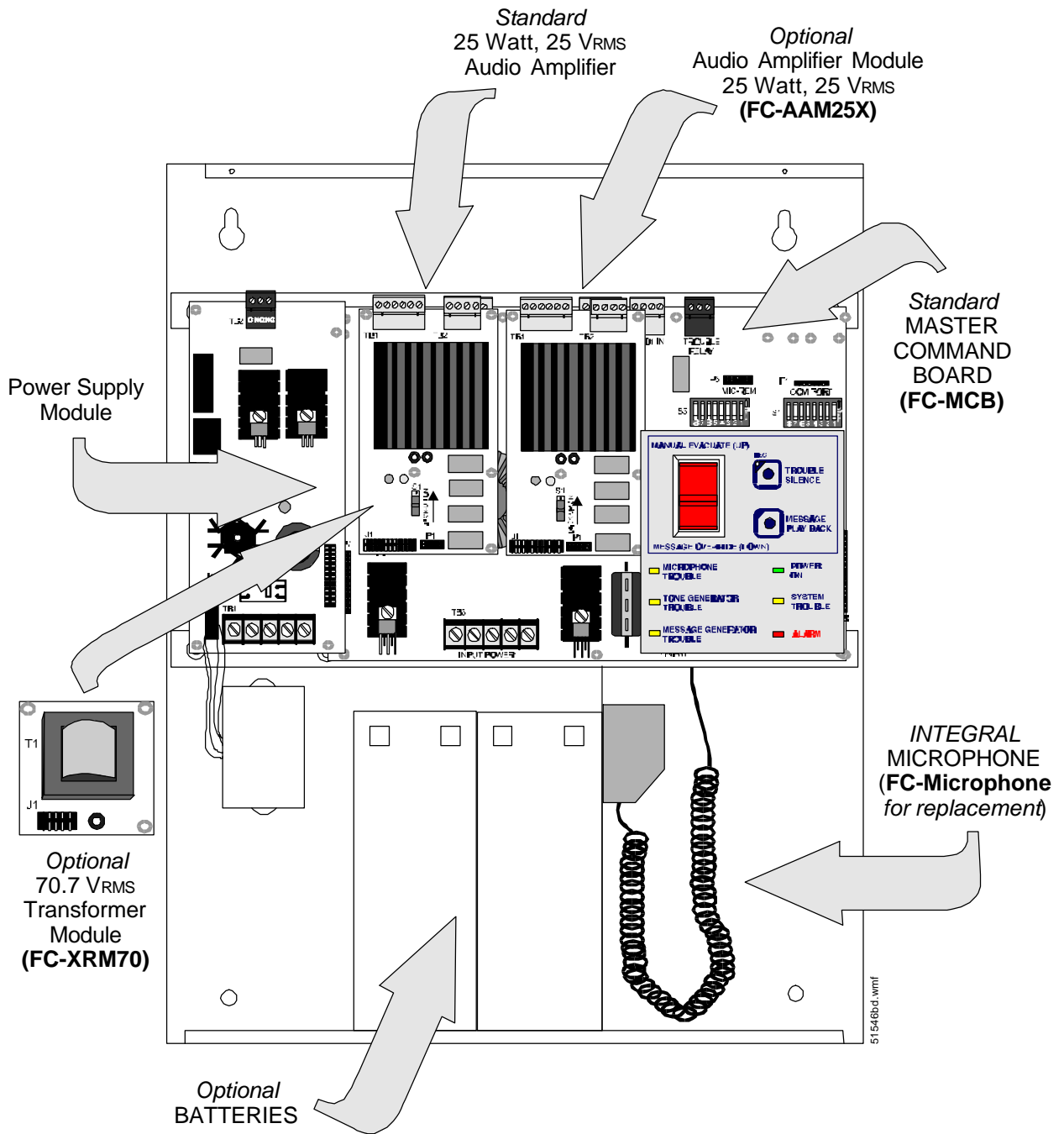
PS-1270 — Battery, 12 volt, 7.0 AH (two required)

PS-12120 — Battery, 12 volt, 12.0 AH, (two required, requires BB-17F Battery Box)

PS-12180 — Battery, 12 volt, 18.0 AH, (two required, requires BB-17F Battery Box)

BB-17F — Battery Box, required to mount PS-12120 or PS-12170 batteries

SYSTEM CONFIGURATION



APPLICATIONS EXAMPLES

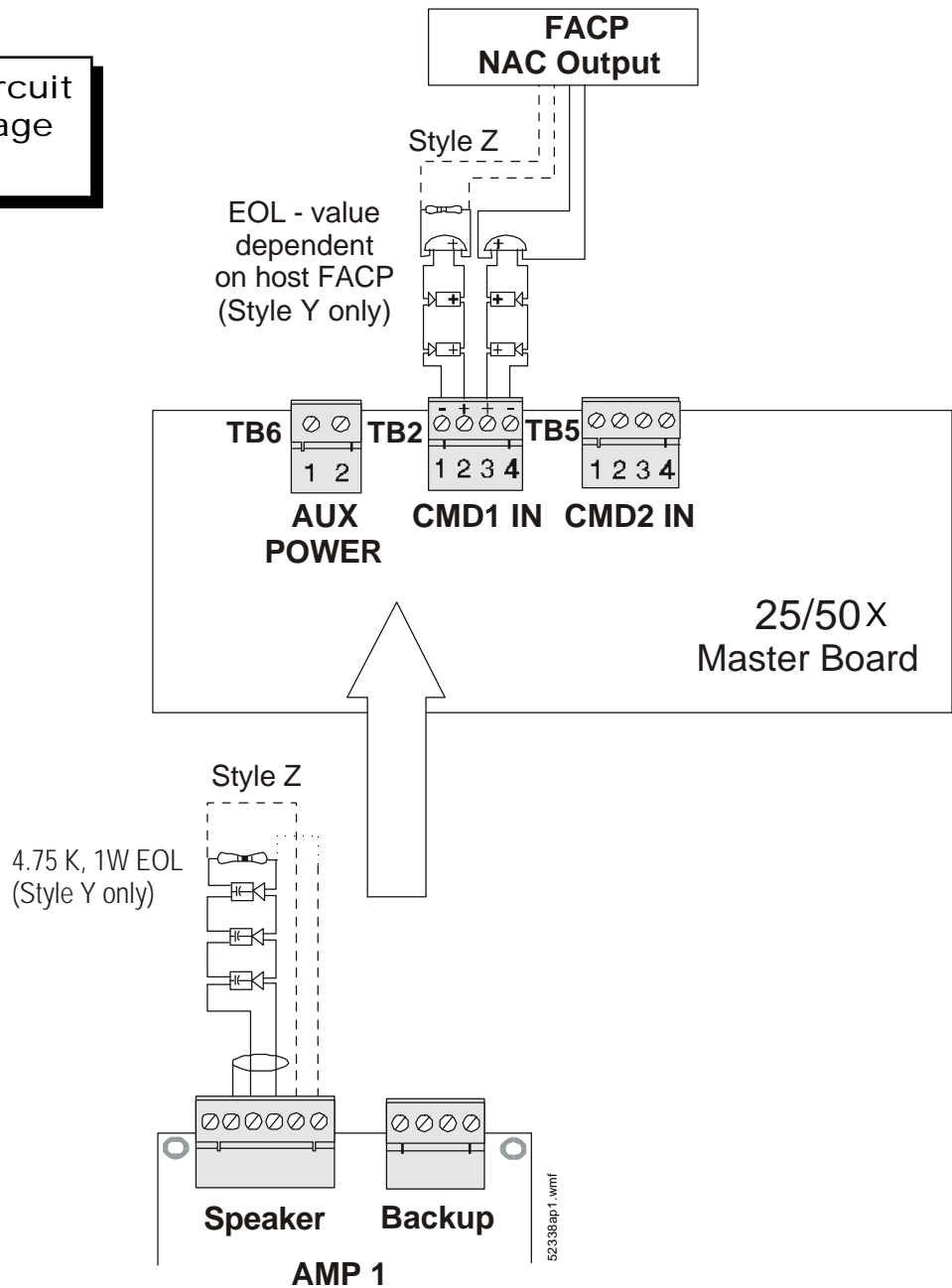
One Speaker Circuit — One 60s Message — 25 Watts

A very basic application consists of one FIRE•COMMAND•25/50X and one amplifier with a single speaker circuit. A second amplifier can be installed as a backup if desired. This configuration is suitable for small facilities requiring no more than 25 watts of output power. A single fire evacuation message will be generated during an alarm condition from the host FACP.

In this application, the NAC from the host FACP is connected to CMD1. The CMD1 out terminals are then terminated with an EOL for a Style Y Notification Appliance Circuit (NAC) or the terminals are wired back to the host FACP for a Style Z NAC. S5 DIP switch 2 is set to OFF which causes the speaker circuit to be activated by the CMD1 input. S5 DIP switch 5 is set to OFF which causes CMD1 input to be activated by a reverse polarity condition.

NOTE: FIRE•COMMAND•25/50X may be configured for use as a manual evacuate system only, without need for FACP NAC or contact closure for activation (trigger).

One Speaker Circuit
One 60s Message
25 Watts



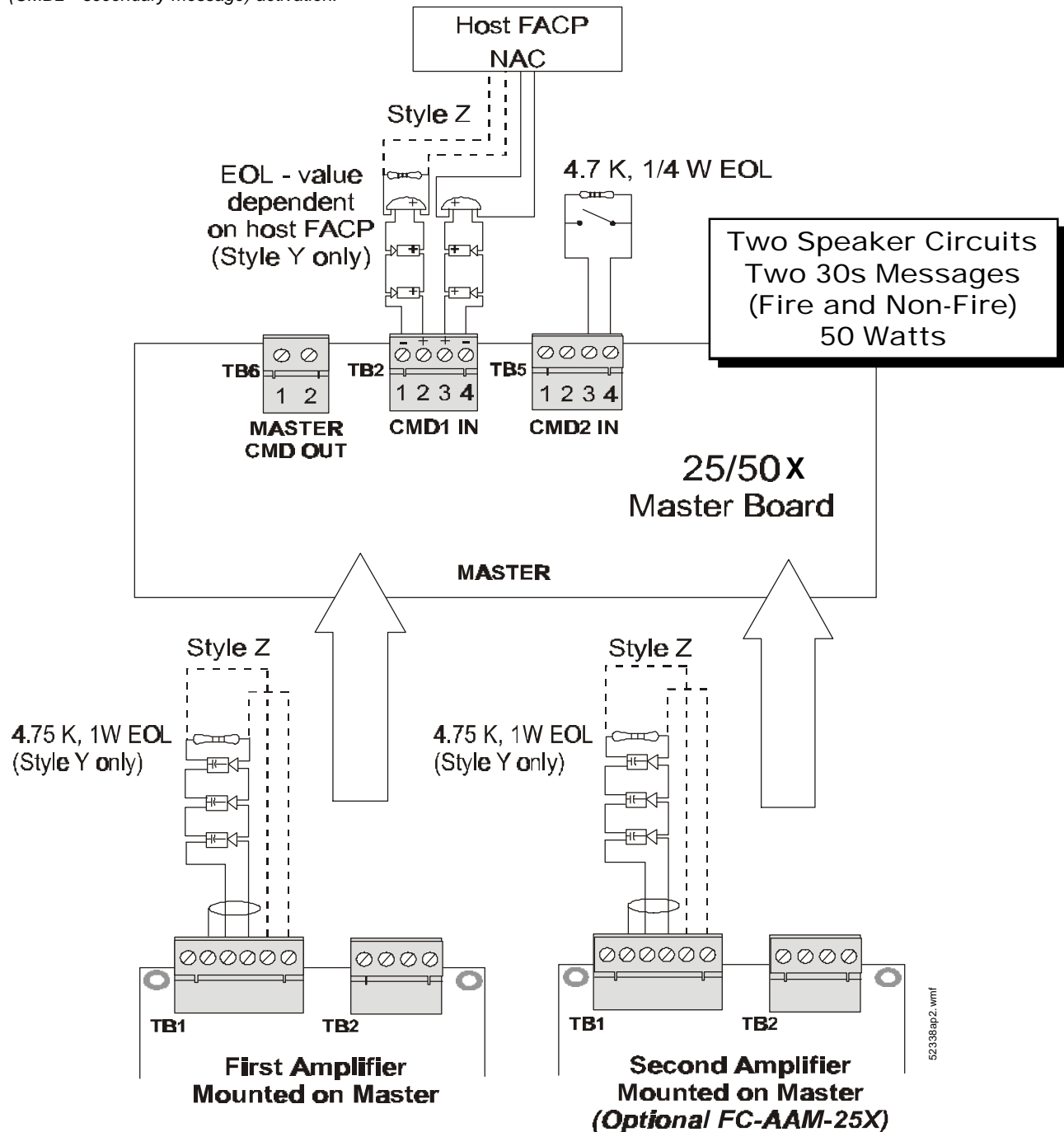
Two Speaker Circuits — Two 30s Messages (Fire and Non-Fire) — 50 Watts

This application consists of one FIRE•COMMAND•25/50X and two speaker circuits which requires installation of the optional second amplifier (FC-AAM25X). This configuration is suitable for small facilities requiring no more than 50 watts of output power (providing dual 25-watt speaker circuits). A fire evacuation message (primary) will be generated over both speaker circuits during an alarm condition from the host FACP and an emergency (secondary) 'non-fire' message (e.g., weather alert) can be manually generated over both circuits.

In this application, the NAC from the host FACP is connected to CMD1. The CMD1 out terminals are then terminated with an EOL for a Style Y NAC or the terminals are wired back to the host FACP for a Style Z NAC. CMD2 is connected to a normally open contact which can be used to manually generate an emergency 'non-fire' message (e.g., Tornado MFA).

S5 DIP switch 2 is set to ON which causes transmission of the primary 'fire' message over speaker circuits 1 and 2 upon activation of CMD1 and transmission of the secondary 'non-fire' message over speaker circuits 1 and 2 upon activation of CMD2. S5 DIP switch 5 is set to OFF which causes CMD1 input to be activated by a reverse polarity condition and S5 DIP switch 6 is set to ON which causes CMD2 input to be activated by a contact closure.

NOTES: 1) FIRE•COMMAND•25/50X may be configured for use as a manual evacuate system only, without need for FACP NAC or contact closure for activation (trigger). 2) Command input one (CMD1 - primary message) activation overrides command input two (CMD2 - secondary message) activation.



One Speaker Circuit — One 60s Message — 25 Watts Backed-Up

This application consists of one FIRE•COMMAND•25/50X with one amplifier and a single speaker circuit. A second amplifier can be installed as a backup if desired. This configuration is suitable for small facilities requiring no more than 25 watts of output power. A single 60 second fire evacuation message will be generated during an alarm condition from the host FACP or activation of the Manual Evacuate switch.

In this application, the NAC from the host FACP is connected to CMD1. The CMD1 out terminals are then terminated with an EOL resistor for the FACP's Style Y NAC or the terminals are wired back to the host FACP for a Style Z NAC. S5 DIP switch 2 is set to OFF which causes the speaker circuit to be activated by the CMD1 input. S5 DIP switch 5 is set to OFF which causes CMD1 input to be activated by a reverse polarity condition.

Backup Amplifier switch S1 is set to the 'Backup ON' position. 18 AWG (0.75 mm²) or larger jumpers connect the Backup Amplifier TB2 Terminal 3(+) and Main Amplifier TB2 Terminal 1(+), as well as Backup Amplifier TB2 Terminal 4(-) and Main Amplifier TB2 Terminal 2(-). Upon failure of the first or main amplifier, the audio from the backup amplifier will be switched out to the speakers.

NOTE: In the optional 70 V_{RMS} configuration, only the amplifier is backed up; the FC-XRM70 coupling transformer is not. For this reason, it is not necessary to install an FC-XRM70 transformer module on the backup amplifier.

