**FIKE CORPORATION**
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# FIK-INT50W
# Product Installation Document

PN LS10119-002FK-E:A 03/04/2021 ECN: 151526

## 1 Description

The FIK-INT50W is an internal amplifier that can be installed inside the ECS cabinet. It is used to amplify the audio messages for distribution throughout the facility for the Fike Series, Emergency Communication System.

### 1.1 Compatibility

The FIK-INT50W is compatible with the following Fike Series FACPs:

- FCP-2100ECS
- FCP-300ECS

**NOTE 1:** For more information, refer to the FACP Installation Manual or Fike Series, ECS Manual PN:LS10262-001FK-E.

## 2 Board Layout and Mounting Installation

Figure 1 shows the FIK-INT50W front view.

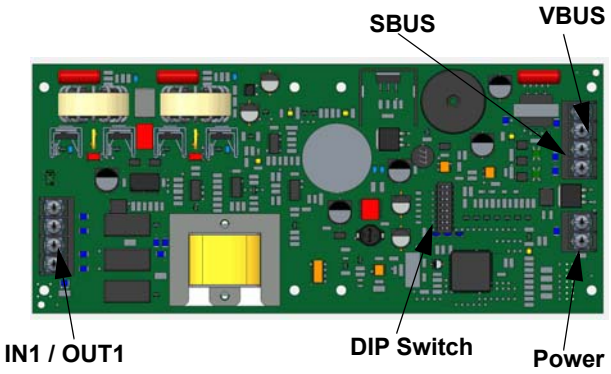



**Figure 1 Front View of the FIK-INT50W**

### 2.1 Mounting the FIK-INT50W

To install the FIK-INT50W, refer to the following mounting instructions.

1. Remove the AC power and disconnect the backup batteries from the main control panel.
2. To mount the FIK-INT50W inside the FACP cabinet under the main board, align the board with the mounting holes. Secure the board to the enclosure with the supplied screws. See Figure 2.

**Figure 2 FIK-INT50W in the FACP Cabinet Under The Main Control Board**

3. When you mount the FIK-INT50W in the ECS cabinet that contains a FIK-NVCM, it is necessary to mount the FIK-INT50W on the right side of the control board. To do this, you will need the FIK-AMPMT Mounting Kit (ordered separately).
4. Use the six supplied screws to mount and secure the FIK-AMPMT into the cabinet.
5. Position with the “Top” side up. (See Figure 3).

6. Secure the FIK-INT50W onto the six standoffs, making sure the two coil parts are at the top, and on the right side of the FIK-AMPMT. See Figure 3 for the coil position.

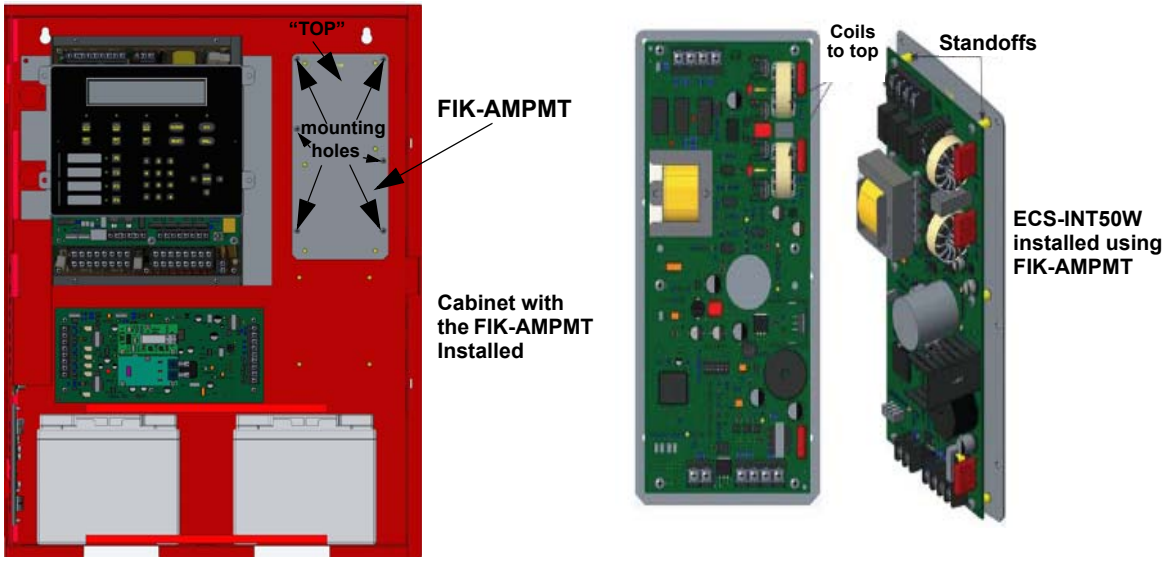



**Figure 3 Mounting the FIK-INT50W**

# 3 Specifications

- Standby Current: 22mA
- FIK-INT50W only Alarm Current: @ 25V 275mA; @ 70V 310mA.
- Full Alarm load current: @ 25V 2840mA; @ 70V 2900mA.

# 4 Wiring to a FACP

To properly wire the FIK-INT50W to the FACP, refer to Figure 4

The internal amplifier must be powered by a NAC and programmed as the Constant Auxiliary Power. For additional information, refer to the FACP Installation Manual.

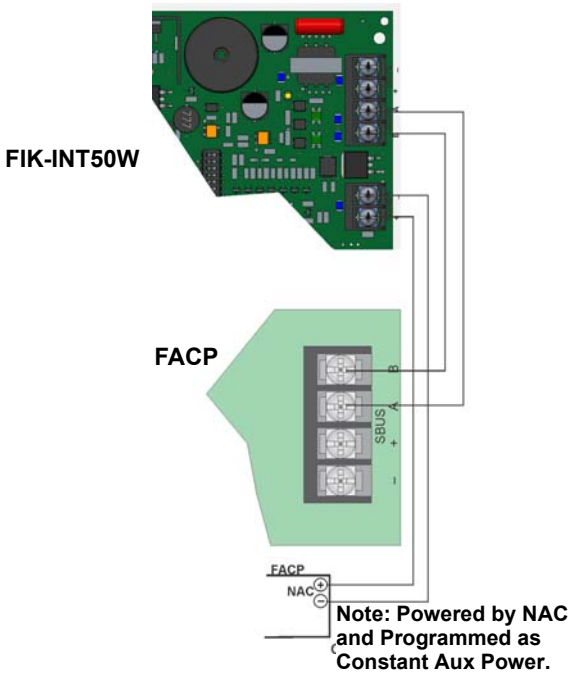



**Figure 4 Wiring the FIK-INT50W to the FACP**

## 3.1 VBUS Wiring

The VBUS is an Analog Voice Bus that carries the recorded voice messages from the FIK-NVCM to the FIK-INT50W or the voice messages generated from a System microphone to the FIK-INT50W.

The maximum resistance on the VBUS is 20Ω.

The VBUS connection from the FIK-NVCM to the VBUS on the FIK-INT50W is shown in Figure 5.

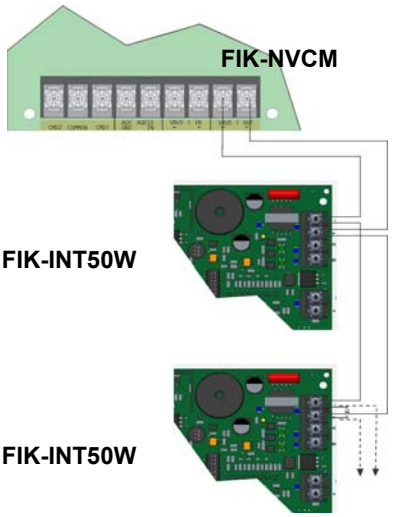
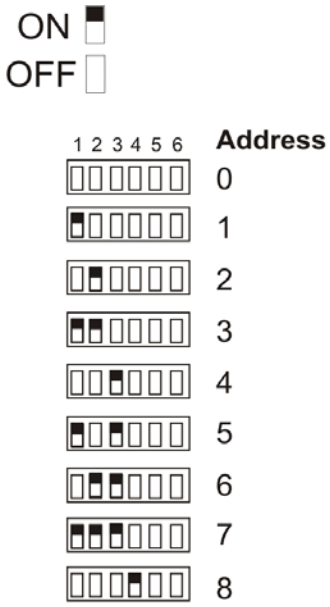



**Figure 5 VBUS Wiring for the FIK-NVCM**

## 3.2 Setting the Device Address

Use the onboard DIP switches to select an ID number to assign to the FIK-INT50W. To review how to set the DIP switches for the desired ID number, refer to Figure 6. Once the ID number is set, you must use the programming to add the FIK-INT50W to the System.




**NOTE: Address 0 cannot be used.**

**Figure 6 DIP Switch**

**NOTE:** The FIK-INT50W is powered by a NAC. It will not be found using the JumpStart® Auto-Programming.

## 3.3 Speaker Wiring

Each FIK-INT50W supplies one circuit for the speaker connection. The speaker circuit can be supervised and wired Class B or Class A. The speaker circuit is capable of 50 watts of power at 25 Vrms or 70.7 Vrms. Refer to Table 1.

| Number Of Speakers | | Total Load | | Wire Distance in Feet | | | |
|---|---|---|---|---|---|---|---|
| @ ½ W | @1W | Vrms | Watts | 18 AWG | 16 AWG | 14 AWG | 12 AWG |
| 10 | 5 | 25Vrms | 5W | 3900 | 6200 | 9860 | 15680 |
| | | 70Vrms | | 25000 | 39700 | 63200 | 100520 |
| 20 | 10 | 25Vrms | 10W | 2125 | 3380 | 5375 | 8540 |
| | | 70Vrms | | 15200 | 24150 | 38400 | 61100 |
| 30 | 15 | 25Vrms | 15W | 1460 | 2320 | 3690 | 5870 |
| | | 70Vrms | | 11000 | 17500 | 27800 | 44200 |
| 40 | 20 | 25Vrms | 20W | 1100 | 1750 | 2780 | 4420 |
| | | 70Vrms | | 8500 | 13510 | 21500 | 34175 |
| 52 | 26 | 25Vrms | 26W | 760 | 1200 | 1920 | 3050 |
| | | 70Vrms | | 6100 | 9700 | 15400 | 24520 |
| 80 | 40 | 25Vrms | 40W | 550 | 875 | 1390 | 2200 |
| | | 70Vrms | | 4100 | 6500 | 10360 | 16480 |
| 100 | 50 | 25Vrms | 50W | 450 | 715 | 1130 | 1800 |
| | | 70Vrms | | 3500 | 5560 | 8850 | 14070 |

**Table 1 Wire Lengths**

**NOTE:** Table 1 assumes a uniform distribution of the speakers, and that a maximum of 20% voltage drop on the last speaker is allowed.

Figure 3.4 illustrates how to wire the speakers to the control panel using the Class B or Class A supervision.

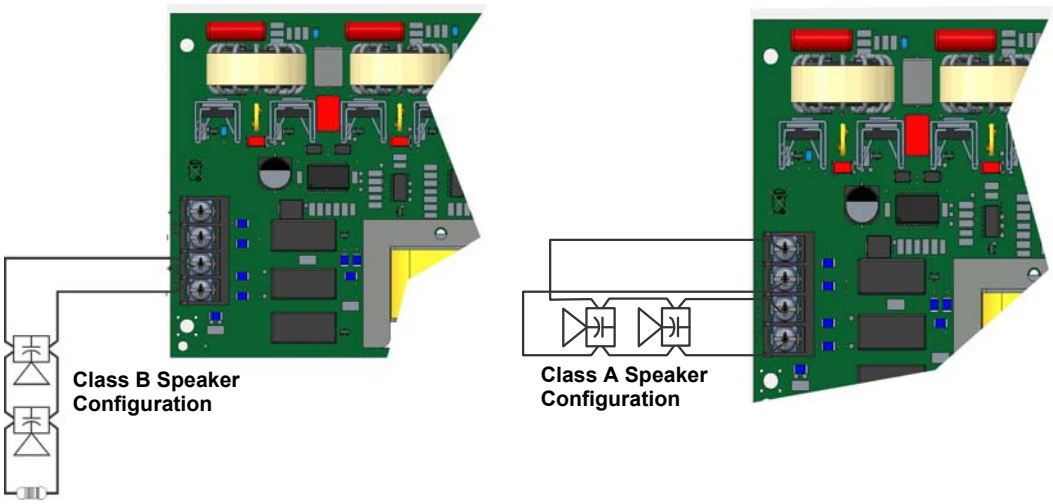



**Figure 7 Speaker Configurations**

## 3.4 Compatible 520Hz Signaling Speakers

For information on the compatible 520Hz signaling speakers, refer to the FACP Installation Manual.