Honeywell | Farenhyt™ Series

ECS-INT50W

Internal Amplifier

Product Installation Document

1 Description

The ECS-INT50W Internal Amplifier is used to amplify the audio message for distribution throughout the facility for the Emergency Communication System. The ECS-INT50W Internal Amplifier can fit inside the IFP-300ECS or IFP-2000ECS cabinets. It can also be adapted to fit into the IFP-2100ECS cabinet with the ECS-AMPMT mounting kit (sold separately).

1.1 Compatibility

The ECS-INT50W is compatible with the following Honeywell Farenhyt Series FACPs. For more information, refer to the *FACP Installation Manual* or the ECS Series Manual (PN:151455).

- IFP-2100ECS
- IFP-300ECS
- IFP-2000ECS
- IFP-1000ECS
- IFP-100ECS

1.2 Specifications

- Standby Current: 52mA
- ECS-INT50W only Alarm Current @ 25V: 275mA; @ 70V: 310mA
- Full Alarm load current @ 25V: 2840mA; @ 70V: 2900mA

2 Board Layout

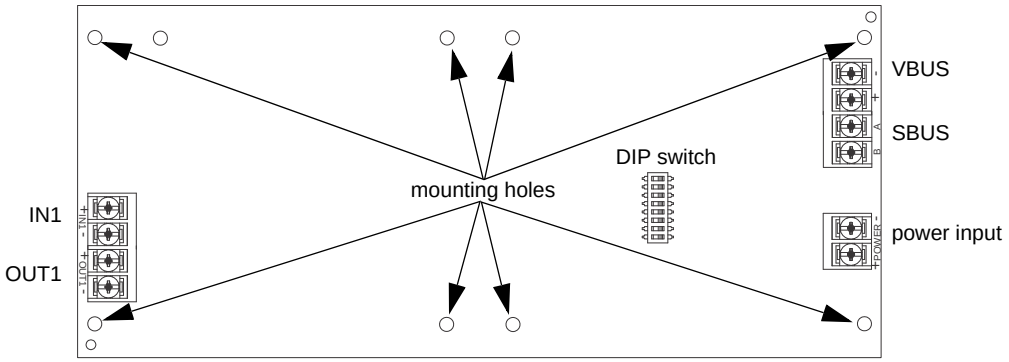

Figure 1 ECS-INT50W Board Layout

3 Installation

NOTE: Installation and wiring of this device must be done in accordance with NFPA 72 and local ordinances.

To mount the ECS-INT50W, refer to the following steps.

1. Remove AC power and disconnect backup batteries from the main control panel.
2. To mount the ECS-INT50W inside the FACP cabinet below the main board (above the batteries), align the board with the mounting holes and secure the board to the enclosure with the eight supplied screws.

When mounting the ECS-INT50W in the ECS cabinet that contains an ECS-NVCM, it is necessary to mount the ECS-INT50W on the right side of the control board. To do this, you will need the ECS-AMPMT mounting kit (ordered separately).

1. Mount the ECS-AMPMT plate into the cabinet using the six supplied screws. Orient with “Top” side up. See Figure 2 below.

2. Secure the ECS-INT50W onto the six PEM studs on the mounting plate with six supplied screws. Ensure the side with only one terminal block is at the top of the ECS-AMPMT. See the figure below.

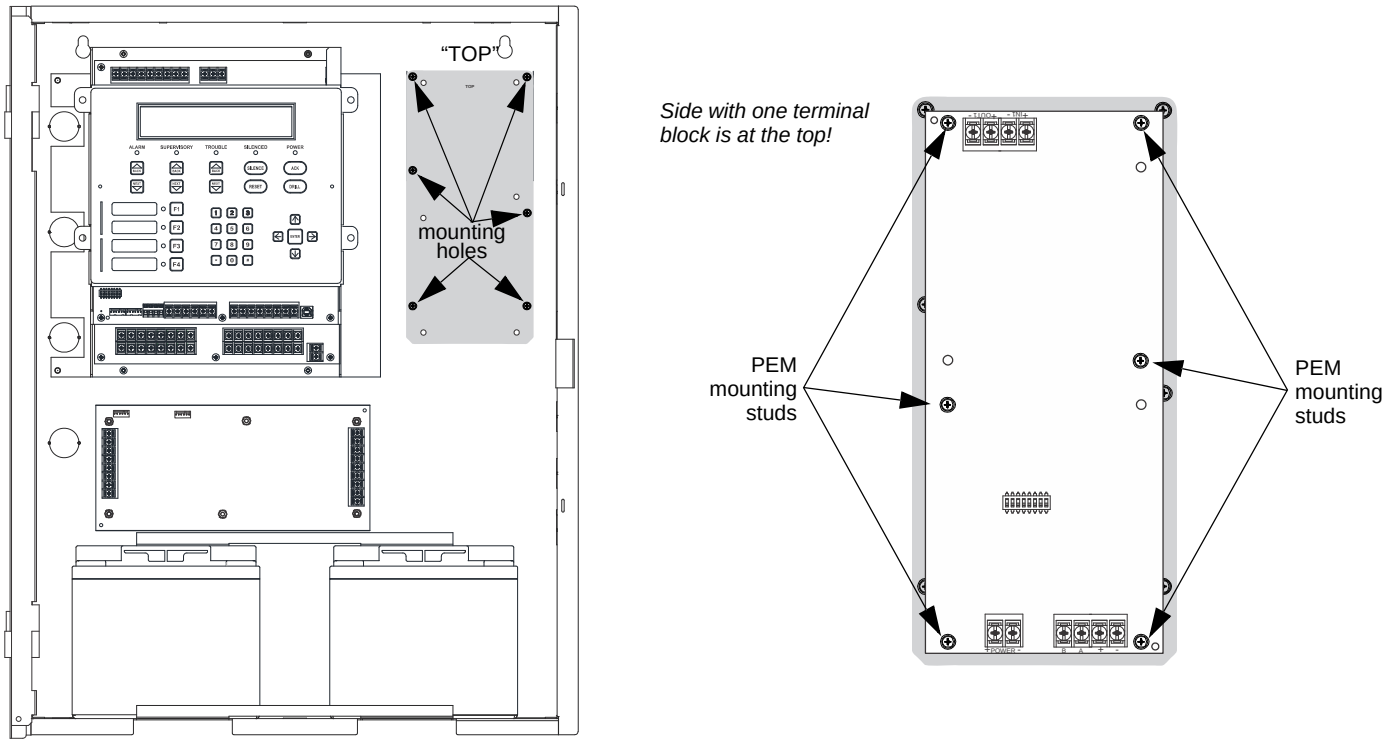

Figure 2 ECS-INT50W Installed in Cabinet using ECS-AMPMT

4 Wiring

4.1 FACP Wiring

See Figure 3 to properly wire the ECS-INT50W to the FACP. The Internal Amplifier must be powered by a NAC programmed as Constant Auxiliary Power. Refer to the FACP Installation Manual.

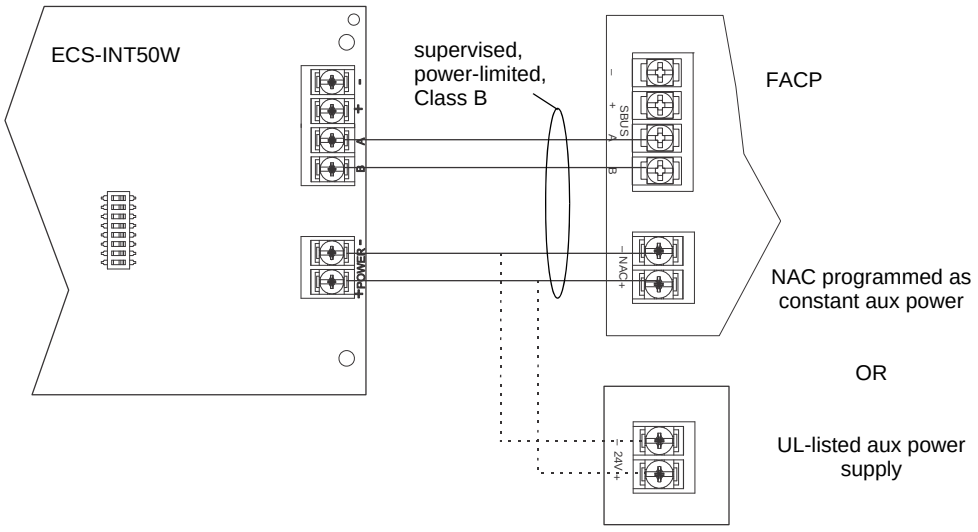

Figure 3 Wiring the ECS-INT50WTto the FACP

4.2 VBUS Wiring

The VBUS is an analog voice bus that carries the recorded voice messages from the ECS-VCM or ECS-NVCM to the ECS-INT50W amplifiers, or the voice messages generated from a system microphone to the ECS-INT50W.

The maximum resistance on the VBUS is 20W.

Connect the VBUS from the ECS-VCM or ECS-NVCM to the ECS-INT50W amplifiers as shown in Figure 4.

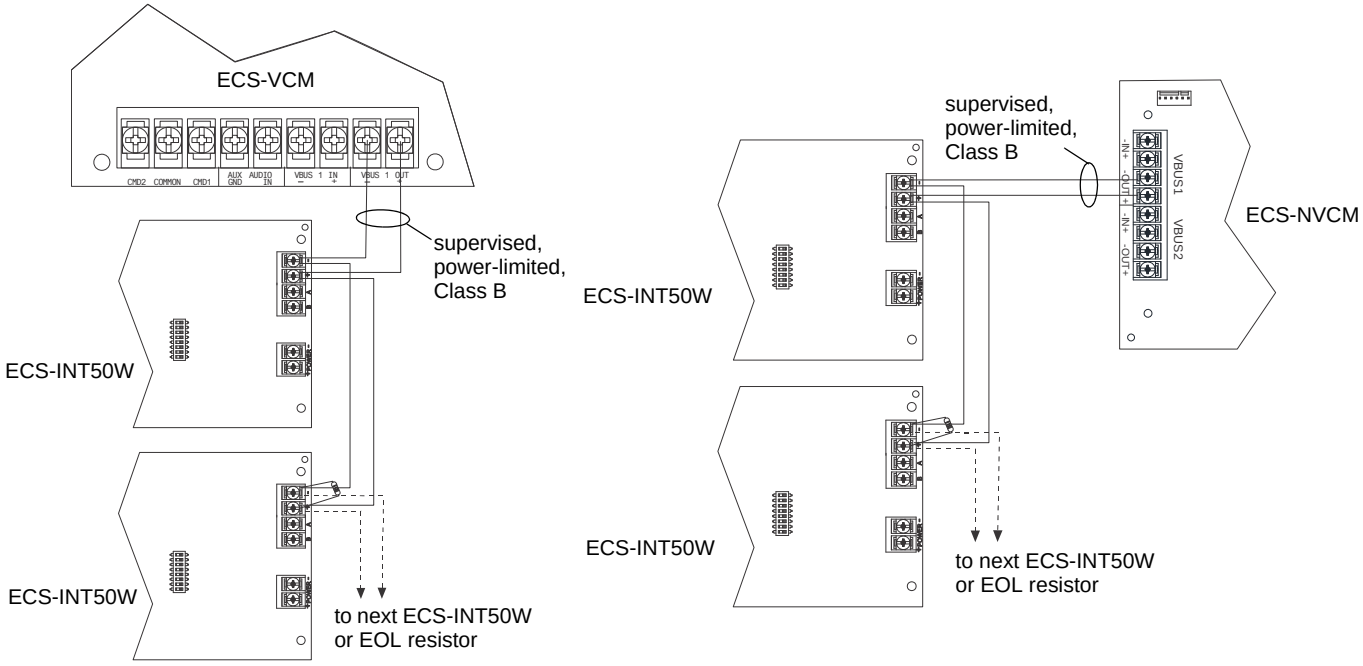

Figure 4 VBUS Wiring for ECS-VCM or ECS-NVCM to ECS-INT50W

5 Setting the Device Address

Use the onboard DIP switches to select an ID number for the ECS-INT50W. Refer to Figure 5 to see how to set the DIP switches for the desired ID number. Once the ID number is set, add the ECS-INT50W to the system through panel programming. Note that Address 0 is an invalid number and cannot be used.

NOTE: The ECS-INT50W is powered by a NAC on the FACP or by an auxiliary power supply. It will not be found using JumpStart AutoProgramming.

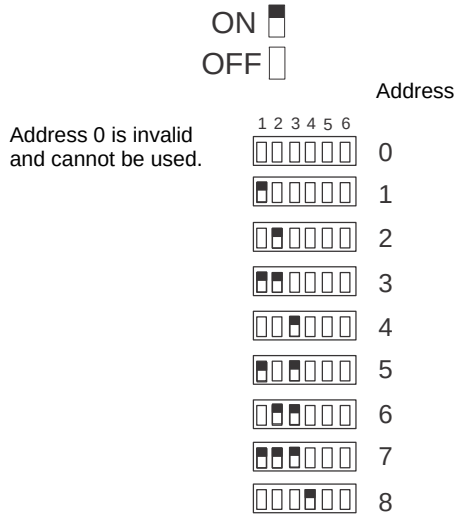

Figure 5 DIP Switch Settings

6 Speaker Wiring

Each ECS-INT50W supplies one circuit for speaker connection. The speaker circuit can be supervised and wired for Class B or Class A. The speaker circuit is capable of 50 watts of power at 25 Vrms or 70.7 Vrms. Refer to the *Farenhyt Device Compatibility Document* P/N LS10167-003FH for compatible speakers.

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: The above table assumes a uniform distribution of the speakers, and that a max of 20% voltage drop on the last speaker is allowed.

Figure 6 illustrates how to wire speakers to the control panel using Class B or Class A supervision.

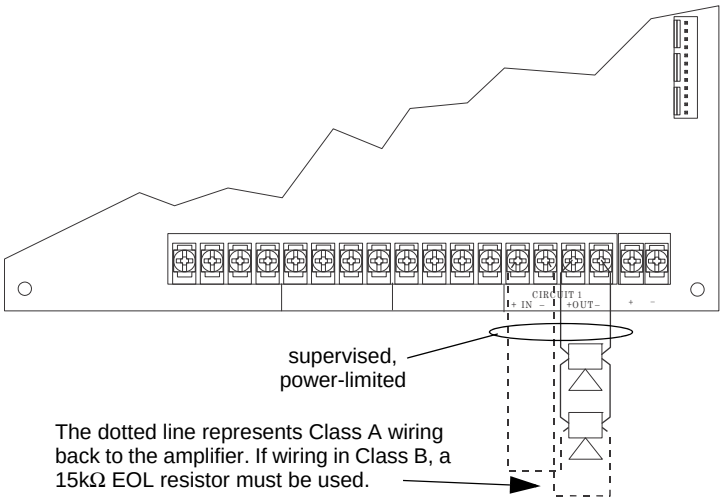

Figure 6 Speaker Configurations

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