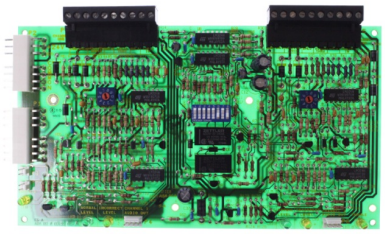

NOTIFIER ABA-2 Audio Buffer Amplifier Instruction Manual

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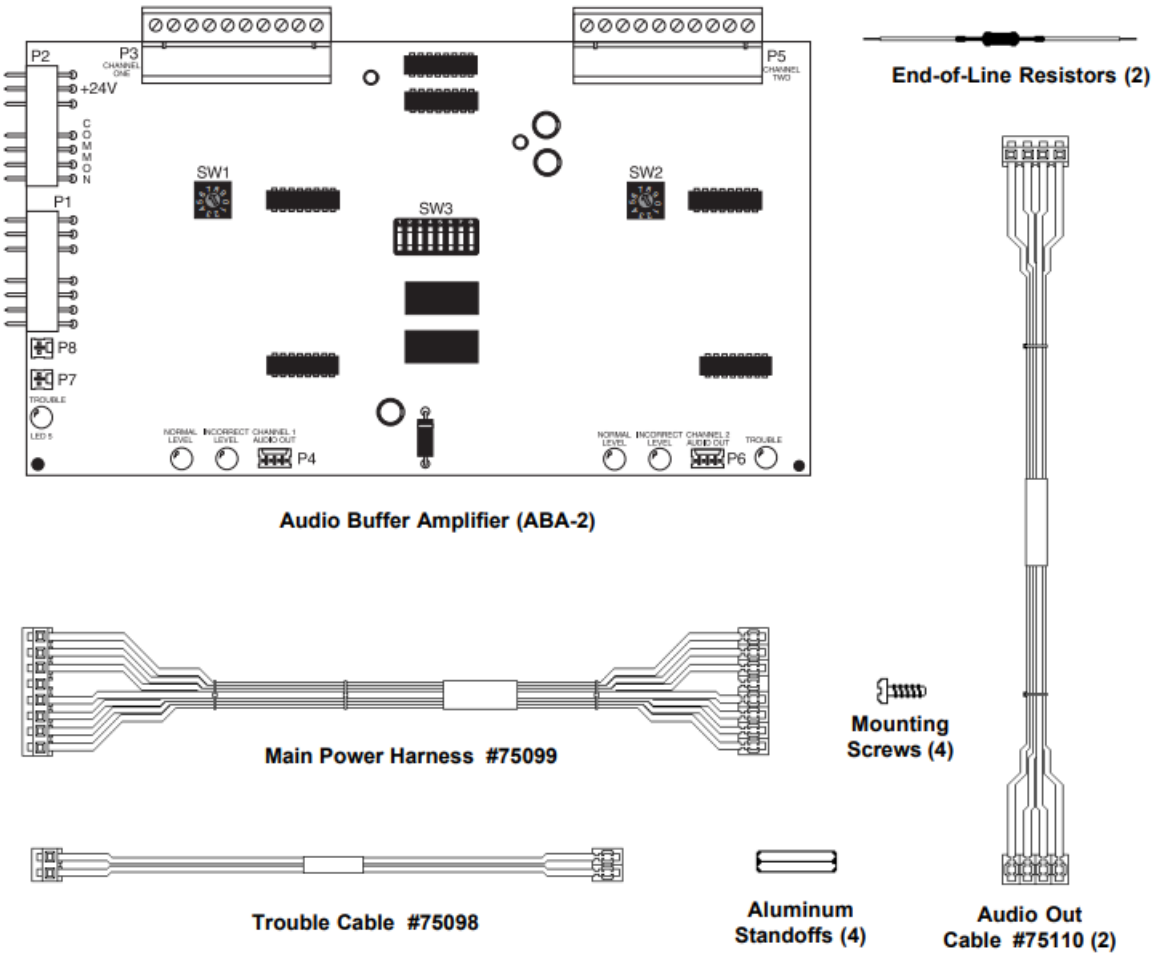
ABA-2
Product Installation Drawing
For the Audio Buffer Amplifier

Contents

Audio Buffer Amplifier Installation Instructions

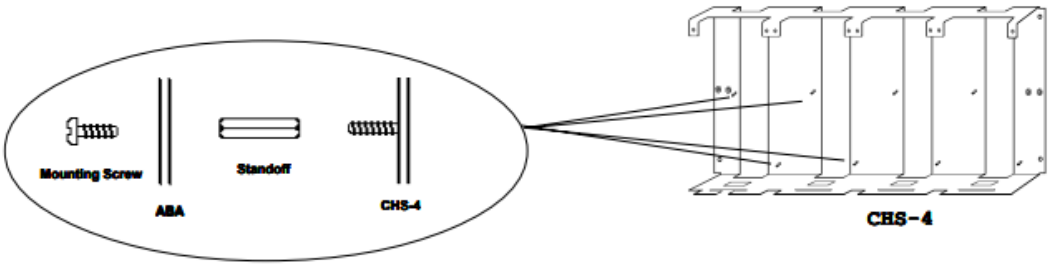
The Audio Buffer Amplifier (ABA-2) serves two functions. It increases the total number of AA-30/AA-120 audio amplifiers that can be used in a System 5000 or AM2020/AFP1010 fire detection system beyond fifty, and it supplies one of two user selectable backup tones that are automatically activated in the event of the loss of the primary audio signal from the AMG– 1 or ATG-2. The ABA-2 mounts in the bottom of a CHS-4 chassis, and can be used for single- or dual-channel systems. One ABA-2 should be installed in each remote location where AA-30s are installed; this will insure that all amplifiers have a locally generated backup tone in the event of total AMG-1 failure or a break in the audio wires leading to the amplifier cabinet. Local backup tone is already available from the AA-120. The ABA-2 requires 65mA at 24V for operation.
Each ABA-2 consists of one circuit board assembly, four #6-32 mounting screws, four #6 aluminum hex standoffs, one Main Power Harness (75099), one Trouble Cable (75098), two Audio Input Cables (75110), and two 470-ohm, 1/2 watt end–of– line resistors (R-470). (In Canada, order N-ELR separately.)



Installing the ABA-2

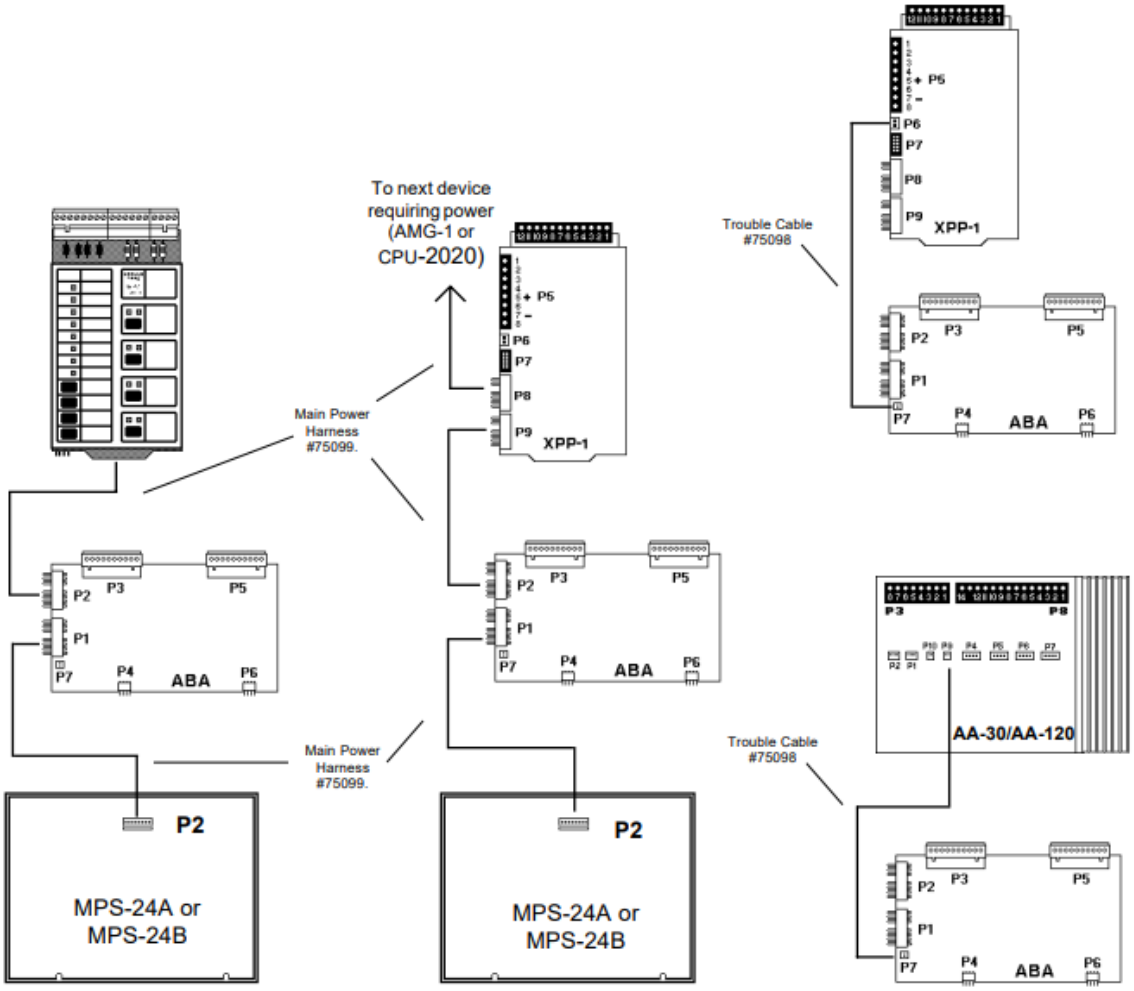
The ABA-2 is designed to mount on a CHS-4 underneath an XPP-1 in an XP Transponder System or the CPU-5000 in a System 5000. To install, place the four supplied standoffs on the four male studs on the left side of the bottom of the chassis. Place the ABA-2 over standoffs on the chassis and secure with the four mounting screws supplied.

Note: For ease of installation we recommend connecting the Audio cables(s) before mounting the ABA-2.

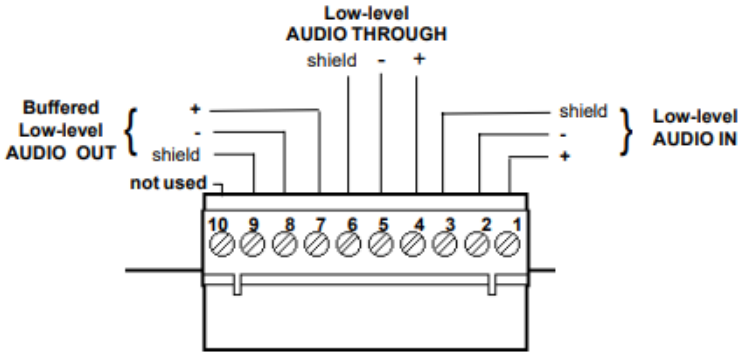


Wiring the ABA-2

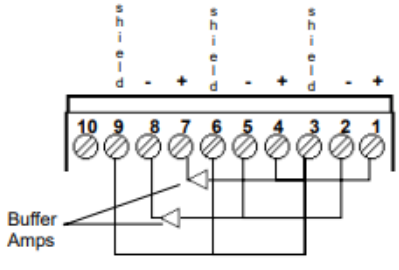
Connect one end of the supplied Main Power Harness to P1 on the ABA-2 and connect the other end to an available power connector on the XPP-1 (P8 or P9) or the CPU-5000only one connector is available — chaining is acomplished through the ABA–2. Connect the supplied trouble cable to P7 on the ABA-2 and connect the other end to either P9 or P10 on one of the AA-30/AA-120s. Note: In XP Transponder systems, the trouble cable connects P7 on the ABA-2 to P6 on the XPP-1. If P6 is already occupied, connect the cable to P9 or P10 on one of the AA-30/AA-120 amplifiers. (These are all normally open trouble contacts that are simply chained together in any order to report trouble back to the XPP– 1.)



Connect the low-level Channel One audio to the ABA-2 on P3 pins 1 and 2. Connect the shield to pin 3. Pins 4, 5 and 6 continue the audio through to either the next remote cabinet or return to the AMG-1 in a four-wire supervised configuration. If the ABA–2 is the last device on the low-level audio line and the 4-wire return is not used, terminate the channel with a 470ohm End-of-Line Resistor (supplied with the AMG–1) across P3 Terminals 4 and 5. For dual-channel operation, wire P5 on the ABA–2 to the second audio channel the same way that P3 is wired to the primary channel.



ABA Terminal Definitions (P3 and P5)



ABA Common Terminals (P3 and P5)

If the ABA-2 and the AA-30/AA-120s reside in different cabinets . . .

Connect ABA–2 P3 pins 7, 8 and 9 to the audio input of one of the AA-30/AA-120s (P3 Terminals 4, 5 and 6) in a single-channel audio system, or to the channel select switches on a dual-channel system. On dual channel systems, connect P5 pins 7,8 and 9 to the Channel Two amplifier in the same fashion as Channel One.

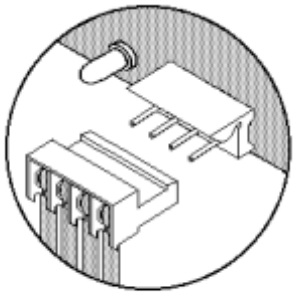
If the ABA-2 and the AA-30/AA-120s reside in the same cabinet . . .

For single-channel operation, connect one end of the Audio Out Cable to P4 on the ABA–2 and the other end to P2 on an AA-30/AA-120. For dual-channel operation, connect one end of the second Audio Out Cable to P6 on the ABA–2 and the other end to P2 on an AA-30/AA-120.

IMPORTANT! The Audio Cable connectors must be oriented correctly to ensure that the polarity is matched beween the ABA–2 and the AA-30/AA-120.

Final Connections

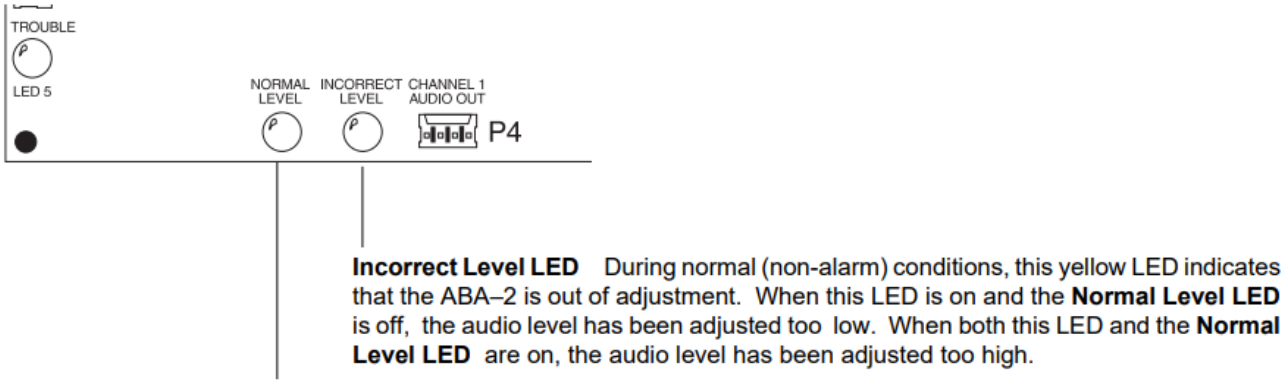
A 470-ohm End–of–Line Resistor (supplied with the ABA–2) must be placed at the last AA-30/AA-120 on each channel of the ABA–2.



Audio Cable Connector Orientation

Adjusting the Amplifier Output

Note: The following procedure must be performed after all amplifiers have been installed in the system. Set all DIP switches on the ABA–2 to the OFF position. (In a dual-channel system, set DIP Switch four ON.) Apply power to the alarm system. With the system in normal standby, adjust SW1 (ten position rotary switch) on the ABA until LED1 “NORMAL LEVEL” is lit and LED2 “INCORRECT LEVEL” is extinquished. This adjustment compensates the audio level for line losses. In a dualchannel system, adjust SW2 for the same indication on LEDs 3 and 4. Complete the procedure by adjusting the gain on all AA-30/AA-120s for “NORMAL LEVEL” indication.



Adjusting the Amplifier Output

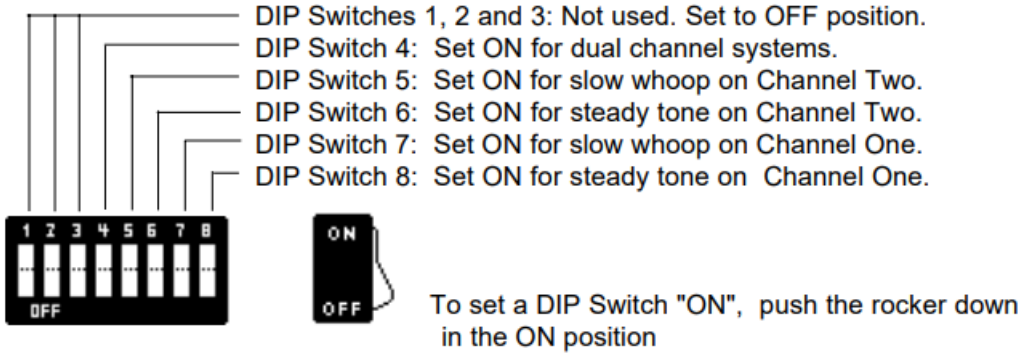
After all ABA-2s have been adjusted, set the amplifier output on all AA-30/AA-120s in the system.

Testing

After installation, disconnect the low-level audio signal to the ABA–2. Within 40 seconds, the trouble LED on the ABA–2 should light and the fire alarm control panel should signal a trouble. The selected backup tone should be heard through any activated speaker zone that is driven through the ABA–2. For dual-channel systems, test both audio signals separately.

Setting the DIP Switches

Finally, set the DIP Switches on the ABA-2 for the desired mode of operation. The 8-selection DIP Switch (SW3) is used to set user selectable **options.**



Notes:

1. Either a slow whoop or a steady tone must be selected for each channel for a backup tone to be generated.
2. Selecting both slow whoop and steady tone on the same channel will result in a combination of the two signals as a backup tone.

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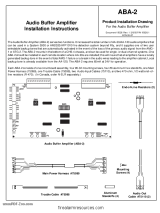
Documents / Resources

	NOTIFIER ABA-2 Audio Buffer Amplifier [pdf] Instruction Manual ABA-2, ABA-2 Audio Buffer Amplifier, Audio Buffer Amplifier, Buffer Amplifier, Amplifier

References

- Fire Alarm Resources | Download fire alarm documents