

The SMA1 kit is a two way public address, audio surveillance interface that is designed to connect to DVRs and I/P cameras. The SMA1 can be used with any 8 Ohm or 70v speaker and any Sound Surveillance **pre-amplified** microphone. The SMA1 is typically located near the DVR or I/P camera. Note-input and output signals on the SMA1 are "line level" only. *The SMA1 is for use in half duplex audio systems only. Audio whine or "feedback" will be result if both speaker and microphone are active at the same time.*

Microphone / Speaker Placement.

Locate the speaker and microphone near the area of interest in the space to be monitored. If a large area is to be monitored, locate the speaker and microphone in the middle of the space if possible. Avoid mounting the speaker and microphone near air conditioning vents, light fixtures or electrical equipment. The speaker and microphone should be placed as close to the subject(s) as possible. 5 to 10 feet is ideal. The speaker and microphone are still useable in the range of 15-25 feet in public address applications but is dependent on the level of background noise in the area. Experimentation in the environment will determine what distances work best.

Audio Signal Cable Runs

Recommended cable is: 2 each 22 gauge, stranded, two conductor shielded cables (one for the microphone and the other for the speaker) between the SMA1 amplifier / interface and the speaker and microphone. Keep the cable run distances under 1,000 feet (70v speakers only) and away from AC power sources, light fixtures and electrical equipment. **If you are using an 8 Ohm speaker, 100 feet is the maximum suggested distance with #22 cable.** *Make connections as shown in Figure 1.*

SMA1 location and power: The SMA1 interface box is designed to be located next to a DVR or I/P camera. The SMA1 requires a 120VAC power source within 3 feet of its location. If this is not possible in your application, you can splice in up to 100 feet of 18 awg, 2 conductor cable to extend the distance between the AC power source and the SMA1.

SMA1 70V / 8 Ohm direct switch:

When using the SMA1 with a CSM8 or HSM11 speaker / microphone, make sure this switch is in the 70V position. If you are using an 8 Ohm speaker (no audio transformer on or in the speaker), place the switch in the 8 Ohm direct position.

DVR or I/P camera connections:

Connect the "audio out" of the SMA1 to the "audio in" of the DVR or I/P camera. Connect the "audio in" of the SMA1 to the "audio out" of the DVR or I/P camera. Note-input and output signals on the SMA1 are "line level" only. If the DVR or I/P camera uses screw terminals for audio connections, simply cut off the ends of the supplied RCA patch cables, strip the wires back and connect the wires to the I/P camera terminal blocks. The center conductor of a cut patch cable is + and the shield is -.

Adjusting the SMA1 Levels:

Set both level controls to 1/8 clockwise from full counter clockwise on the SMA1 before powering the system up. Adjust the controls + or - to the desired levels for both speaker and microphone. If the microphone sound at the DVR or head end is distorted, rotate the control towards the - mark (counter- clockwise). Adjust the volume of the speaker to the desired level. If the speaker volume is too high, amplifier oscillations may result. Turn the level control down if you experience this.

