

## AUTOMATIC MICROPHONE SYSTEM

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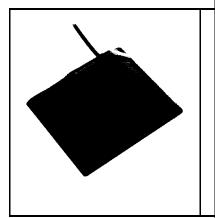
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# AMSUPDATE

#### AMS Featured In Canadian Installations

The Shure Automatic Microphone System was recently tapped for two quite prestigious installations in Canada.

In downtown Toronto, Bell Canada is putting the finishing touches on their new corporate headquarters, including a show-place boardroom equipped with 22 AMS channels that feed their sound reinforcement system. The installation, which features the AMS22 Microphone and AMS8000 Mixer, is being handled by Integrated AV Systems, Toronto. The room will be used for board meetings and as a showroom for corporate clients.



AMS22 Microphone

Further west, you'll find the largest installation of AMS equipment in the world. This distinction goes to the Alberta Provincial Court Complex, whose courtroom sound reinforcement systems are being installed by Altair Communications Ltd., Edmonton, Alberta.

Thirty-two new courtrooms are being added to the complex. Sound reinforcement for the new courtrooms will include overhead speakers. Automatic

control in each courtroom will be provided by the Shure AMS.

The complex will feature a whopping 186-AMS22 Microphones, 72-AMS26 Microphones, 6-AMS28 Microphones, 35-AMS8000 Mixers, and 13-AMS4000 Mixers.

### Shure AMS Briefs Pentagon

One of the more impressive AMS installations we've heard about recently is located in the Pentagon, Arlington, VA. This briefing room sound reinforcement installation utilizes a mix of AMS22 and AMS26 Microphones, permitting clear, balanced vocal sound from every vantage point.

The AMS22's are situated around a horseshoe-shaped table at the front of the room. The audience area includes five rows of theatre seats, all miked by AMS26 Microphones mounted on goosenecks. The system was specified and installed by Southeastern Security Systems, Charleston, SC.

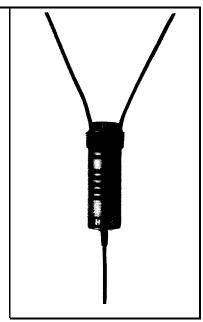
#### AMS Lavalier Model Added

We have added a useful new product to the Shure Automatic Microphone System, one that will expand its possibilities enormously.

The new arrival is the AMS28 Condenser Microphone - a lavalier model that posesses all the capabilities of the Shure AMS22 and AMS26. Like its predecessors, the AMS28 can discriminate between sounds that originate within its 120-degree front acceptance angle and all other sounds. Sounds that originate beyond this "window of accep-

tance" will not make the microphone turn on, regardless of their loudness.

Shure has carefully designed the AMS28 for superior audio quality. Its wide (100 to 10,000 Hz) frequency response has been specially tailored for high quality speech applications; the result is extreme sonic clarity



AMS28 Microphone

with a minimum of muddiness and boominess. Like other AMS microphones, the AMS28 will not be activated by handling or clothing noise.

The AMS28 has a brown vinyl-enameled brass case with a brown steel mesh grille. It is equipped with an attached 20foot (6.1 m), two-conductor, shielded, vinyl-jacketed cable, with a standard three-pin professional audio connector. Also supplied is a simple, quickly installed lavalier assembly for chest-worn use.

The AMS28 is ideal for use in conference rooms, legislatures, churches, courtrooms, broadcast studios, and panel discussions. Its user net price is: \$205.00.

## AMS UPDATE Technical Q&A

I am using the Shure AMS in a situation where I'd like to have at least one microphone on at all times, even when no one is speaking within the acceptance angle of any of the microphones in the installation. What are my options?

You have several. One is described on Page 9 of the AMS installers manual under "Preventing Room Noise Modulation." This circuit is illustrated by Figure 16 on the same page. It will cause a pre-selected microphone channel to gate on anytime all other microphone channels are gated off.

We have recently developed a new circuit [illustrated below] which provides yet another option. When this circuit is employed, the last microphone to gate on will remain on indefinitely, until another microphone in the system gates on. When the new microphone gates on, it releases the "lock-on" from the previous microphone, and the new microphone "locks on" indefinitely until released by another microphone, and so on. The AMS will operate normally when more than one microphone is gated on simultaneously.

I have a wireless microphone system I'd like to use with my AMS8000. I realize that it won't perform the automatic functions that an AMS microphone will, but I'd like to use it anyway. How can I connect it?

There are several ways of doing it. If you have a line-level output on your wireless microphone receiver, you can simply connect the line-level output to the auxiliary input of your AMS mixer. It won't gate on and off automa-

tically, but it will work fine otherwise

Another option: Using the logic terminals for the channel you'd like to employ, connect a short jumper wire between Logic Ground and Override In. This will turn the channel on permanently. Then, if your wireless receiver has a balanced mic-level output, simply plug it into the AMS channel you have permanently gated on with the jumper wire.

If your wireless microphone receiver has only a balanced line-level output, follow the same procedure, but use a line attenuator (such as the Shure A15LA) when connecting the receiver to the mixer.

If you'd like to be able to switch the microphone on and off remotely, you can ground both the Mute In and Override In terminals, and put a switch on the circuit leading from Mute In to Logic Ground. Since the Mute In circuit will have precedence over the Override In circuit, you may turn the microphone on or off at will by using the switch.

#### Can I use my wireless microphone with the AMS and still have the automatic gating function?

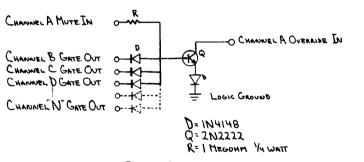
Yes, you can, provided your wireless microphone receiver has a balanced line-level output. The circuit illustrated below will convert an AMS microphone input into a gating line input.

We suggest starting with a 2 Megohm resistor. At this resistance value, the AMS mixer channel will not gate on until it receives a signal of at least .016 volts, which is equivalent to - 36 dBV. All AMS logic terminals will operate normally when this circuit is employed.

If you should wish to vary this gating threshold, you may use a trimmer resistor instead of a fixed resistor and adjust it to meet your needs.

One last point: Since this circuit changes the source impedance to 2 Megohms or more, you must keep the cable as short as possible to avoid signal degradation.

#### AMS "Lock On" Logic Circuit



REPEAT CIRCUIT FOR EACH CHANNEL INVOLVED

#### AMS Conversion: Mic Input + Gating Line Input

