

Inter-M PX8000 System

An 8x8 matrix with real knobs and faders... and some hidden depths.

Text: / Graeme Hague

THE INTER-M PX8000 (8x8) audio matrix system is a fully configurable controller for routing up to eight audio sources, which Inter-M calls 'BGM'

(or Background Music) to any of eight destination zones. But that's by no means the end of the story. Add in four RJ45 sockets for Inter-M's own RM8000 remote microphone consoles and another eight RJ45 sockets for the LM8000 remote wall-mount controls and the scene is set for a rather alarming number of possible signal routing paths. Note that the PX8000 is a controller only — it doesn't offer any amplification. Each of the eight zones is fed out as a balanced line-level signal.

All eight of the matrix input connections are pairs of standard RCA jacks accompanied by a rotary line level adjustment. The outputs use a three-pin Phoenix connector similar to the sort of thing you'd use to connect figure-8 cable. Beside each output are rotary bass and treble controls providing $\pm 12\text{dB}$ of high- and low-pass filter.

Immediately it struck me that the input levels and tone controls are a good idea, but I imagine that by the time everything is plugged they're going to be difficult to access — not to mention that they're located on the back of the unit.

Volume for each of the eight output zones is controlled by a single 60mm fader, and above this is a selector for which BGM source it receives. Any zone can link to any BGM, so for example, all the zones can listen to Input 1. However, you can't provide a mix of BGM: a zone can only be fed one BGM source at a time.

LM8000: ZONED OUT CONTROL

At the other end of the line, the destination zone can be just an amplifier handling a

mono signal. But in an ideal Inter-M world you've installed the LM8000 remote Control, giving that zone its own volume... and more. However, control of the volume has to be assigned to the LM8000 via a dedicated button on the front panel of the master control unit. Either one or the other has control — they don't compete. A Select button on the remote control allows you to choose the BGM source that comes from the PX8000.

The LM8000 panel also has a minijack line input and a 6.5mm balanced microphone input, both with their own level controls. These will work regardless of who has a hand on the volume control, although passing the responsibility to the wall remote is obviously going to work best.

Effectively, you're turning that zone into a separate PA system that you can use for a local lectern or a line-level signal from a portable mixer or replay device. It's worth pointing out that while the microphone input is balanced, there is no phantom power.

CONNECTOR BEWILDERMENT

Back at the master PX8000 front panel, there's a 6.5mm input for a paging microphone and the ability to choose each zone; a selection thereof; or an overriding 'All' button to reach everywhere. The paging mic also has its own level, bass and treble controls. The choice of a 6.5mm connection is a slight disappointment. It's a minor thing, but the PX8000 is a rack-mount unit and usually a rack of AV and PA gear is exactly that — a stand-alone rack against the wall with no place for putting any paging microphone, plus a cable is going to be left hanging.

I think a better idea would have been

an XLR connection, exactly as Inter-M has in its own remote microphone console (RM8000) to take a gooseneck mic. In fact, why not just a good in-built mic?

The PX8000 does have an internal chime which is variable in nature via a dip-switch selector. At the other end of the panel is a selector for choosing what is monitored through a small speaker on the fascia and a volume control for this.

RM8000 — MIC STATION

The RM8000 remote microphone is an impressive desktop model. You can set it up to broadcast to any of the eight zones. Just to clarify, these aren't a better-featured remote control like the wall-mount fixture. It can't control any zone volume and has no line input. It's more of a broadcast sub-station or, if you have multiples, one can be considered as the main station. It also has a dip-switch for choosing an internal chime.

The Inter-M system can accommodate four of these remote mic consoles, and there are LED indicators on each to let you know — seen in combination with the zone selection buttons — if any of the other three are broadcasting to the same area and causing a block.

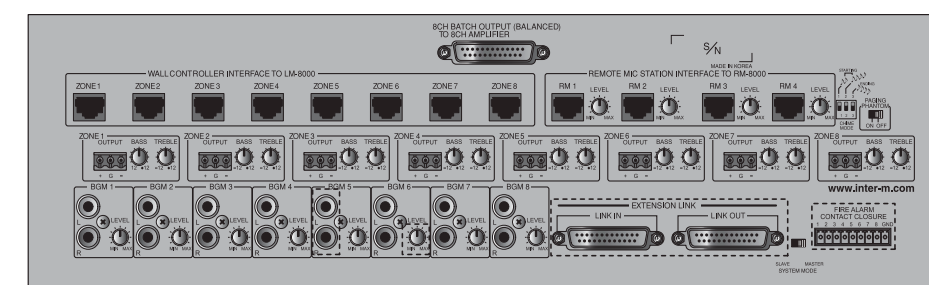
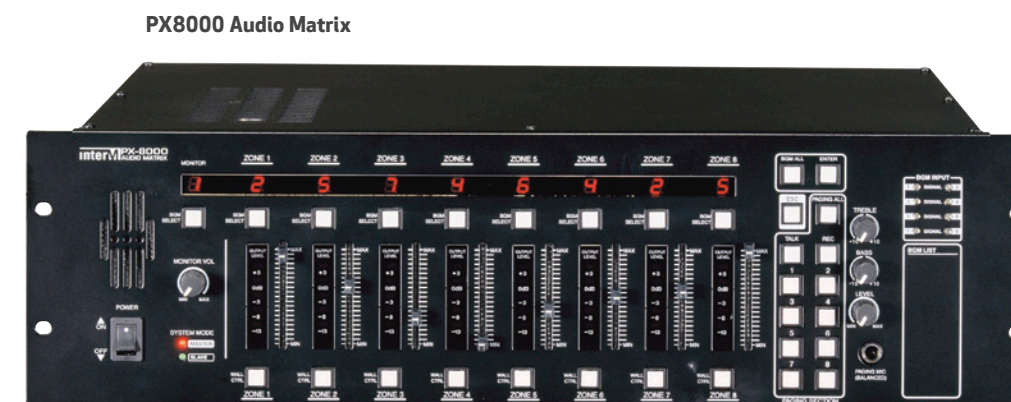
The four connections are prioritised (from one to four) and, in certain circumstances, a lower number will override other stations. Individual volume controls are on the back of the PX8000 and an output control is on the remote console along with a volume knob for the speaker (monitor) in the base of the microphones. One interesting omission: there is no facility on the PX8000 to 'lock out' any of the remote mics. So potentially, the annual board meeting in one zone might be interrupted by the receptionist singing



RM8000 Mic Station



LM8000 Remote Control



happy birthday to Bob in Despatch.

The main PX8000 unit has an in-built digital recorder with capacity for a 30-second message and playback that's triggered by up to eight external switch closures. The idea is a direct connection to a fire alarm system and that any trip switches or emergency buttons would also begin the 30-second message. Something like 'run for your lives!' probably. Other uses do come to mind — a network of Stop buttons to alert the building to a workplace accident or a security breach.

CHAINING THE PX8000

Finally, on the rear of the PX8000 is a batch output for connecting to a suitable eight-channel amplifier — it's not clear if the bass and treble controls for each output are still effective — and D-Sub 25P link for chaining additional PX8000 units.

This would provide extra zones that will respond to the (now) Master PX8000's BGM inputs, 'All' paging commands, chimes and emergency triggers. These zones can also have their own wall remotes

(the LM8000's). Any connected RM8000 microphones only affects the zones to which their own PX8000 is linked. For instance, an RM8000 plugged into a slave PX8000 can't broadcast to zones connected to the Master. The BGM inputs on slave units become redundant.

REAL CONTROL

DSP-based matrix devices like a dbx ZonePro and the like have all but taken over the 8x8 market. But, for many operators, there's still something very reassuring about the PX8000's real knobs and sliders. In other words it's an easy, uncomplicated, and cost-effective device to pitch at the uninitiated. The flipside of that, is the hidden depths. By which I mean, if you start to employ the remotes and the mic stations it'd be quite easy to under-utilise rather than over-utilise the PX8000. But with careful planning, many smaller venues would find a good use for all eight inputs and zones. Of course, this system isn't just for background music and paging announcements. Show relay facilities, for

example, can be significantly enhanced. Likewise, with the proper prioritising of the remote microphone stations you can create extra communications and still maintain discretion and some control on confidentiality.

On the downside, as I mentioned earlier, the volume and tone controls on the rear panel aren't going to get the attention they deserve given the tangle of cables they'll no doubt be buried under. And the manual lapses into some confusing Korean-lish like 'Deliver your voice to the phone'.

Otherwise, the PX8000 will provide the right solutions for a lot of PA networks. Too often, we run out of options when we're installing a public address system for a venue: we're left wanting one more input, one more zone... Instead, put in a PX8000 right from the start and be spoilt for choice.

Price: PX8000 \$2200; RM8000 \$610; LM8000 \$220.

Magna Systems: (02) 9417 1111 or photson@magnasys.tv