

Model 41 vs Model 42A – What’s the Difference?

Both the Model 41 and the Model 42A Interfaces are designed to create four 2-channel broadcast-standard IFB outputs from analog line-level audio sources. The primary application for both units is to allow analog signals provided by digital matrix intercom systems to support broadcast-type powered IFB user devices. The Model 41 and Model 42A receive up to eight analog signals and use them as part of creating four 2-channel powered IFB output circuits. Using 3-pin male XLR connectors, each IFB output provides common on pin 1, 30 volt DC power and unbalanced channel 1 analog audio on pin 2, and unbalanced channel 2 analog audio on pin 3.

The only difference between the Model 41 and the Model 42A is the number and location of the 3-pin XLR connectors provided for the IFB outputs. **The Model 41 provides four 3-pin male XLR connectors on the back panel.** These are intended to connect to permanent wiring associated with one or more I/O (input/output) panels that may be located directly adjacent to or remote from the Model 41. **The Model 42A provides four 3-pin male XLR connectors on the back panel and, in addition, four 3-pin male XLR connectors on the front panel.** The two sets of connectors are wired in parallel (“multed”) allowing connections to be made either to the front-panel connectors, the rear-panel connectors, or both. The connectors on the front panel can be useful when immediate access to the IFB circuits is required. For example, when a Model 42A is mounted in an equipment rack and used as part of a “fly-pack” or “booth-

kit” configuration. Having front-panel access to the 3-pin male XLR connectors can allow technical personnel to directly attach interface cabling to the IFB circuits.

It’s important to note that both the Model 41 and the Model 42A have only four 2-channel IFB output circuits. With the Model 41 these four circuits support one set of connectors that are located on the back panel. With the Model 42A the four IFB output circuits interface with the outside world by way of two sets of 3-pin male XLR connectors, one set located on the back panel and the other located on the front panel.

In conclusion, the Model 41 and Model 42A provide identical functionality using an identical set of internal circuitry. The only difference is the addition of four 3-pin male XLR connectors on the Model 42A’s front panel. Selecting to use one versus the other is simply a matter of determining whether or not IFB output connectors are needed on the front panel. The Model 41 will be appropriate for most installations that are associated with a fixed facility or one that incorporates external I/O panels with IFB output connectors. Mobile or portable applications may benefit from selecting the Model 42A where front-panel IFB output access can be beneficial. Of course, installing a Model 42A in any application will always work correctly. (It has IFB output connectors on both the back and front panels.) But the extra cost would be wasteful in applications that don’t require front-panel IFB output connectors.



Model 41 Interface Front and Back Panel Views.



Model 42A Interface Front and Back Panel Views. Note XLR Connectors on Front Panel.

Q: What are the best criteria for an end-user, design engineer, purchasing agent, buyer, or reseller to use to select between the Model 41 and the Model 42A?

A: If the application needs access to the IFB outputs by way of XLR connectors on both the back and the front panels then select the Model 42A. If back-panel access to the IFB outputs is acceptable then the Model 41 would be appropriate.

Q: Can I use a Model 42A where a Model 41 might be acceptable?

A: Certainly. But the extra IFB output connectors on the front panel would just be wasted.

Q: Is the audio quality and performance the same on both the Model 41 and the Model 42A?

A: Yes, the performance will be identical. The same internal circuitry is used by both units.

Q: Are the features and user controls the same on the Model 41 and the Model 42A?

A: Yes, they are identical. The only difference is that the Model 42A has 3-pin male XLR connectors on both its back and front panels. These are wired in parallel so the same signals go to two places rather than just one.

Q: Do the Model 41 and Model 42A require a different input audio interconnection scheme and mains powering?

A: No. The audio input wiring is identical, using one 25-pin D-subminiature connector. AC mains power is connected using a standard 3-blade IEC 320 C13 cord set.

Q: Are the units the same size and weight?

A: Yes, the physical size (one space (1U) in a standard 19" rack) is identical as is the weight.

Q: Why is the Model 42A priced slightly higher than the Model 41?

A: The Model 42A has an extra set of connectors on the front panel as well as additional internal support wiring.