The question was recently asked about the differences between front panel and rear panel microphone inputs.

FT2000 Serial 6G010010

I used a HP 8903B Audio Analyzer to inject varying levels into first one then the other. And using a software program, setting the level and recording output power with a R&S NRPZ.

The summary results were

- With MIC GAIN at 12 o'clock Front Panel input of 1mV gave 100.22W
- With MIC GAIN at 12 o'clock Rear Panel input of 11.8mV gave 101.55W

So the REAR panel is about 21dB LESS sensitive than the front panel input.

Measuring the distortion and S+N/N gave

- With MIC GAIN at 12 o'clock Front Panel input of 1mV gave 36db S/N UP TO 1.5mV the S/N improved to 40dB (ALC at about S6 on S meter scale) and then fell back to 37db up to 2 mV I/P.
- With MIC GAIN at 12 o'clock Rear Panel input of 11mV gave 52db S/N UP TO 15mV the S/N held at 50dB (ALC at about S6 on S meter scale) and then fell back to 39db above 17 mV I/P.

Putting a metal cover of the FRONT PANEL microphone jack when using rear panel lowered the 60 and 120Hz pickup by about 8dB

So the REAR panel has about 10dB better S/N than the front panel input.

So I would say on this sample that keeping the ALC below S7 on S meter scale is a good idea whatever input is used.

I also measured the relative gain settings for the Microphone Gain control

With 12 O'clock as reference 0 dB 9 O'clock is about –14dB

10 O'clock is about -9dB

11 O'clock is about -4dB

1 O'clock is about +4dB

2 O'clock is about +6dB

3 O'clock is about +9dB

ABOUT means +/-1dB

The graphs for these are on following pages







