



# DSF-2

## Digital Broadcast Microphone System

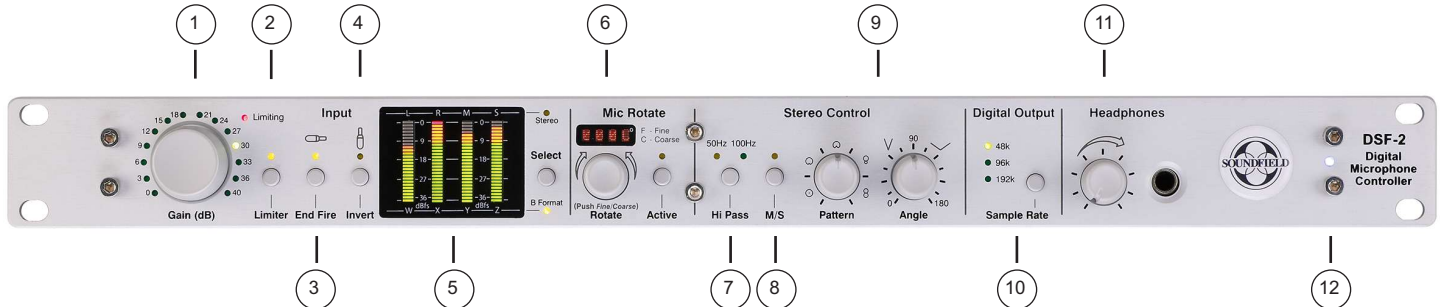


The DSF-2 Broadcast Microphone System has been specifically developed to provide simultaneous digital surround and stereo soundscapes at large scale outside broadcast events such as sports stadiums and concert hall venues. Its advantage over alternative methods is that the multi-channel audio it generates from a 'single point' source is completely phase coherent. This enables the broadcaster to collapse the surround to stereo or mono for TV and radio feeds without loss of information, frequency imbalance or any of the other phase problems associated with spaced microphones or multi capsule 'dummy head' arrangements.



Resulting from a 5 year digital Research & Development programme, the DSF-2 Broadcast system represents the latest generation of SoundField Technology and comprises a four capsule microphone and a 1U-rack digital controller. The DSF-2 controller outputs stereo, M/S, and four-channel B-Format which can be decoded into any current or future surround format using the hardware SP451 or Surround Zone software plug-in. All microphone parameters can be adjusted from the DSF-2 controller without the need to physically move the mic itself, including orientation, angle, pickup pattern and a unique Mic Rotate control.

The DSF-2 controller also offers a user-adjustable gain control, a limiter, 26 segment LED metering of B-Format, stereo & M/S, a hi-pass filter and a headphone jack for monitoring purposes. The processor can drive a mic cable of up to 250m in length, and the processor may in turn be connected to coaxial cables of up to 1km long when the digital outputs are in use. In OB situations where a broadcast truck often cannot be located near the microphone, the DSF-2 mic can be situated up to a distance of 1.25km from the truck without any problems. The stereo signal may be output directly in the analogue or digital domain via rear panel XLR and unbalanced 75Ω BNC connectors respectively. The stereo M/S and B-Format signals are output digitally via unbalanced 75Ω BNC connectors.



### Controls:

1. Relay Switched Gain (up to 40dB) in 3dB steps, a circular LED bargraph illuminates the selected Gain position.
2. Switchable fixed threshold Limiter to prevent 'digital overload' with status LED and limiter activity LED.
3. End Fire: maintains correct three-dimensional perspective in surround & stereo when mic is in a horizontal position.
4. Invert: maintains correct three-dimensional perspective in surround & stereo when mic is suspended upside down above the sound source.
5. Switchable 26 segment B-Format or Stereo bargraphs 0 to -37.5dBfs range; an amber LED indicates the selected monitor mode.
6. Rotation control offers 360° mic rotation with switchable Coarse (10° steps) and Fine (1° steps) mode.
7. Switchable 50Hz or 100Hz Hi-pass filter with status LED.
8. Mid/Side - switches stereo outputs from Left/Right to M/S.
9. Variable Polar Pattern and Angle (width) for stereo output.
10. Sample rate selector: 48K, 96K and 192K.
11. Stereo headphone monitoring section with level control.
12. Power/Status LED.

### Rear Panel Outputs:



**Digital Output:** 75Ω AES 3-id via BNC connectors (simultaneous digital stereo / digital B-Format output).

**Stereo Output:** Left/Right stereo analogue balanced line outputs on XLR connectors.

**Mic Input:** Lemo 12 pin female panel mount connector.