

Active Earmuff

Background:

Noise induced hearing loss due to the high intense sound pressure levels in military and industrial environments are the most common occupational health hazards. Low speech intelligibility/vocal communication caused by the background noise is also a safety issue since it is most important that all commands can be understood correctly.

Although passive noise control gives high attenuation over large frequency ranges but it is inefficient in providing attenuation of low frequency noise. Active noise reducing ear defenders provides low frequency attenuation in conjunction with high frequency attenuation (passive noise control), thus provide noise attenuation over complete audible spectrum. Low frequency attenuation will provide extra noise attenuation inside the ear-defender without attenuating the speech frequencies. With this need, DIPAS has designed the **DIP Active Earmuff** for intense noise occupational environments.



Distinct Features :

- Designed as an entry-level ANR Earmuff, the **DIP Active Earmuff** provides maximum total noise reduction up to 35dB against the white noise, it offers comfort, durability. This works on superposition principle.
- DIP Active Earmuff is based on feedback technique. It consists of speaker and a microphone which registers the noise and generates the anti-noise via a correction filter and amplifier through the speaker.
- It works well against white noise/ random noise, which is of great importance for use in hearing protectors. The electronic circuitry can be extended to add communications peripherals.

Key Benefits :

- Provides low frequency attenuation in conjunction with high frequency attenuation
- Provides noise attenuation over complete audible spectrum.
- Reduces the masking effect
- Provides protection against Noise Induced hearing Loss with improved speech intelligibility

Patent: Indian patent applied