

## **PARABOLIC DISH SET**





## MATCHED SYSTEM OF PARABOLIC DISH & CCM MICROPHONE WITH FREE PLUGIN

- for highest directivity at medium and high frequencies
- application: nature recordings, sports broadcasts, sound design
- for best results use with free EQ plugin "ParabolEQ"
- strong protection against wind noise due to innovative design using a Rycote windshield with fur
- sets available with omni, wide cardioid or cardioid CCM microphone
- OEM parabolic dish from Telinga

A parabolic dish is an extraordinary tool in the hands of a skilled sound engineer, since it achieves a surprisingly high directivity at high and medium frequencies with relatively simple means. With this new parabolic dish system consisting of a special OEM parabolic dish from Telinga and a Schoeps CCM microphone, these characteristics can fully be realized. In addition we achieved significant improvements in terms of some usual disadvantages of a parabolic mirror system by several innovative measures.

find out more: www.schoeps.de/dish The enormous directivity of a parabolic mirror often comes with a very unbalanced frequency response, which also varies widely for different directions of sound incidence. This usually leads to a clear coloration.

To overcome that, the SCHOEPS parabolic dish set is a matched system. The microphone position is designed to produce a balanced frequency response (unusual for a parabolic system) for the three recommended CCM microphone types. Although the frequency response is now balanced, it is not yet even, so must still be equalized. This is automatically achieved with our free plug-in ParabolEQ. The plug-in performs filtering based on the entered application parameters, producing a flat frequency response between 100 Hz and 20 kHz. The correction curve is visualized accordingly.



screen shot ParabolEQ plugin



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## **SELECTION OF THE MICROPHONE TYPE**

The three recommended microphone types are:

- CCM 2 compact microphone omni-directional
- CCM 21 compact microphone wide cardioid
- CCM 4 compact microphone cardioid

These types lead to different results and properties of the system. Therefore, the sound engineer should choose wisely.

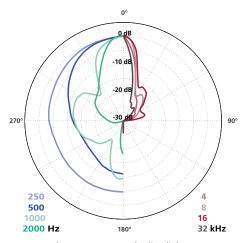
The omni is the usual microphone for recording with a parabolic mirror. This type of microphone causes fewer problems with handling noise and wind noise. The directivity is good and the recording of very low frequencies is possible - although without directivity - but at a good level. This can be an advantage if low-frequency ambience is desired. The

frequency response is not so even compared to a cardioid due to the high level of the signal on the unwanted direct path between source and microphone.

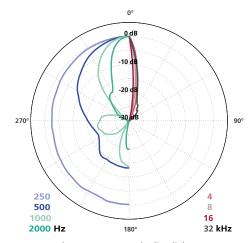
The wide cardioid is a good compromise between the advantages and disadvantages of omni and cardioid. Wind and wind noise are a little more damped compared to the cardioid and the directivity is higher than when using an omni.

The cardioid achieves the best directivity and the most even frequency response (due to the highest suppression of the direct path between source and microphone). However, there can be handling noise when the mirror can not be kept still.

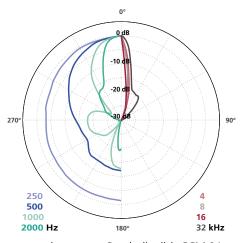
It is important that all CCM microphones are mounted with their 0° direction pointing towards the dish!



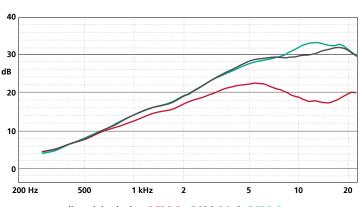
polar pattern Parabolic dish CCM 2



polar pattern Parabolic dish CCM 4



polar pattern Parabolic dish CCM 21



directivity index CCM 2, CCM 21 & CCM 4