

The Acoustic Guitar

Nylon and steel strung guitars are both subtle instruments and need to be miked up carefully if you're going to get the best from them. The strings, wood, lacquer and playing style all affect the tones and it's these delicate influences that should be captured.

The small bodied classical guitar is normally strung with nylon or gut and played with the fingertips giving it a warm, mellow sound with few of the higher overtones found in steel strung acoustics. To make sure you get the full spectrum of the guitar's tone, those upper frequencies need to be helped out by the microphone which should be centred near the bridge. There those overtones are at their loudest, reinforced by the vibration of the guitar's top.

The steel strung guitar is bigger and brighter, carrying a richer supply of overtones especially when used with a plectrum, and a microphone pointed at the soundhole will get an accurate reproduction.

Acoustic guitars are quiet and in the studio where all is silent, you can experiment with far miking. But on stage you need to get as near as possible, but not so close that the player is forever hitting the microphone with his hand, nor so far into the soundhole that pressure effects begin to over-emphasise the bass. 20 cms. (8 ins.) is a good distance and if the guitarist needs to roam around the stage then it's worth trying a condenser clip-on microphone such as the C 567 which fits into the soundhole but doesn't suffer from over-heavy bass.

Players who want a warmer, transparent sound from their steel acoustics should try a D 222, D 330 or D 320, the latter two having bass cut and treble boost switches to tailor the response.

Some acoustics have pickups built into the bridge which produce little or no feedback but tend to be weak on bass and treble. But there's nothing to stop you augmenting that sound with a microphone to cope with the highs and lows. In fact, cutting out the mid-range frequencies from the microphone will help prevent feedback.

Studio engineers favour high quality condenser microphones like the C 414 for the rich tones of the 12 string, but the more precise, finger plucked notes of the classical guitar fare better with the D 224 and D 1200 dynamics or C 535 condenser which are well balanced with wide frequency and good transient responses. The CK 1 condenser capsule is often used in studios but the brighter CK 1s will give greater presence.

Fig. 37

