

## Miking Up Acoustic Instruments



**Must-learn secrets on miking and recording acoustic instruments**

### ACOUSTIC GUITAR

The majority of acoustic guitars used by electro-acoustic bands have built-in pick-ups, so they can go through the PA via a backline amp, or direct, usually via a DI box.

But you may just be using your acoustic for one or two numbers, then switching back to electric, so it's hardly worth having a pick-up fitted - in this case stick an instrument or general purpose mike (if you have one - most vocal mikes will cope if you haven't), on a boom stand and point it towards the body end of the guitar's neck from about six inches away.

Be careful not to point the mike directly at the sound hole as this can lead to feedback problems. Any feedback that does occur will be in the low/mid frequencies, so be prepared for it. You can experiment with mike position until you've got the sort of sound you're looking for, but don't forget that, the further towards the headstock you put the mike the more finger-on-string noise you're likely to get. And too much movement by the guitarist won't do a lot of good for the consistency of the overall sound.

### MADOLINS, BANJOS, ETC

Treat these instruments as small guitars and mike up similarly. Do take note that they can be somewhat harsh at the top end and lacking in the mid range, so you'll need to sweeten the mid and pull the top end somewhat to get a nice rounded tone.

### DOUBLE BASS

If you have to mike up a double bass (many these days are already fitted with pick-ups), you need to get the mike as close as possible, and don't point it at the F holes [Arf! He said, "F holes!"] - just below the bridge yields best results, but for a bright sound you can point the mike at the body end of the fretboard (not that it's got frets, so who knows what you call it - fingerboard perhaps?). Any feedback that does occur will be in the lower frequencies, unsurprisingly.

### VIOLIN

Fiddles tend to be best dealt with by fitting some form of pick-up (there are lots around, varying from cheap piezos to expensive condenser mike-based models like the Hurford Studio Bug), or a tie-clip type mike - if you're going for the latter, try and get a cardioid one, or be prepared for feedback fighting. An omni-directional mike always seems superior, but you really do have to sacrifice a lot of volume. See my later comments on Beyer's tie-clip mikes for flute - they're good for fiddles too.

### PIANO

Pianos are never the easiest of instruments to mike up to achieve a decent sound across the full range. One way is to use a boom stand and position the mike over the strings somewhere between middle C and the top end, with the front panel removed on an upright, and, obviously, the lid open on a grand.

If you've got plenty of mikes (and mixer channels), then use two of them, one near the bass end, one near the top, particularly if the piano is one of your lead instruments. On a grand piano, position one mike halfway down the inside (under the lid), and the other underneath the piano in the middle - seems like a weird idea, but it works.

### BODHRAN

Much used in electro-acoustic folk bands, and often called an Irish drum, you could describe the bodran as a big tambourine without the jangly bits. Clip-on drum mikes like Beyer's TG-X 5, or AKG's C418 from their Micro Mic series work very well with the bodhran, but if you can't afford such luxuries, an SM58 or similar, positioned about a foot away from the skin and slightly above, will do the job.

### BRASS

Stick a mike on a straight or boom stand and treat your blowist like you would your vocalist. With seriously powerful brass you have to make sure your mike is capable of handling fairly high sound pressure levels - the good ol' SM58 works well. Most mike manufacturers make a range of fitments for brass to go with the mikes they recommend for these instruments (Shure's SM98 is a good example and gives excellent results). For the really active player, add a wireless transmitter (and receiver, of course). With powerful, high-end brass instruments like soprano saxes, keep the players well away from the mike or they'll drown everyone else as well as overloading the PA in a very nasty fashion indeed.

#### WOODWIND

You're unlikely to come across many of these other than the flute. A decent vocal or general purpose mike will do the job very adequately, but look out for high end feedback. If your flautist wants a bit more freedom to move about, Beyer's MCE 5 and MCE 10 mikes are very popular, although not cheap, and Beyer make a mount specifically for flutes. The MCE 5 is omnidirectional so you have to be very careful avoiding feedback, but the sound sure is sweet.

#### HARMONICA

Unless you already have a specialist mike for this, a vocal mike will do just fine, but most harp players like to carry their own Shure Green Bullet, or a look-a-like (not necessarily always a sound-a-like), which will hopefully give them the sound they want, and you the feedback you don't. Be prepared to work hard at battling this, particularly if you harmonica player is an active sort. It may not be popular, but cutting back on the top end helps alot, and keep it well away from monitors.