

Synthesizer banjo

Arno Hagenaaars

Banjo

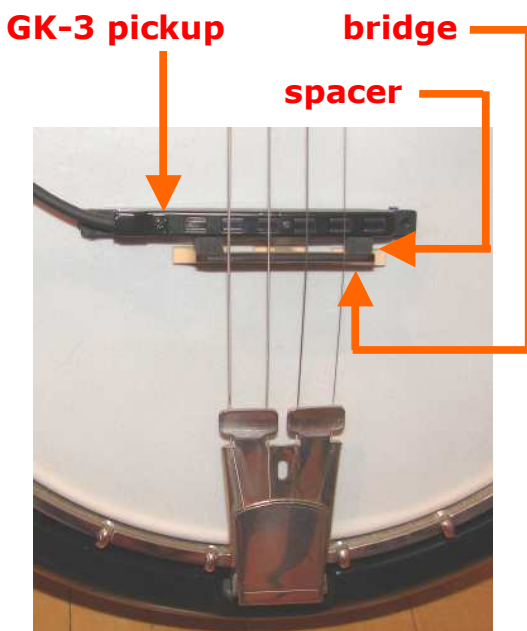
The instrument I use is a Deering Crossfire electric tenor banjo. It has a brass tone ring and a functioning banjo head and is equipped with active magnetic pickups which provide a wide frequency response to reproduce a powerful sound. The sound of the vibrating head is captured with metal strips on the bottom of the bridge. Alternatively, the strips can be attached to the underside of the head above the bridge pickup. There are tone and volume controls on the Crossfire body as well as a switch that controls which pickup is being used including a selection for the two to play together.



Deering tenor Crossfire



GK-3 controller



GK-3 pickup

bridge

spacer

Pickups

I have my tenor Crossfire outfitted with a Roland GK-3 midi-pickup and two Humbucker pickups, an EMG-85 in the bridge position which provides a warm and natural tone and an EMG-60 close to the neck which has lots of output and clarity. The GK-3 is a specialized divided pickup that provides hands-on control for switching patches and mixing banjo and synth sounds. It uses independent coils to pick up the vibrations of each individual string. The curve outlined by the pickups can be adjusted.

For use on a four-string banjo, two of the six coils of the pickup are not used (and can be disconnected). I use the middle four of the coils.

In order to achieve optimal sound quality for the specific set-up I use, I have the GK-3 positioned at approximately one fifth of an inch before the bridge. The optimal placement of the pickup should be accurately defined for each individual set-up.

I have installed two spacers between the bridge and GK-3 to strengthen the attachment of the pickup to the banjo. It also ensures that the distance between bridge and pickup remains constant.

Synthesizer

The GK-3 midi-pickup is connected to a Roland GR-20 synthesizer module which analyses the pitch and volume of each string as it tracks the signals being output by the divided pickup, and uses this information to trigger its built-in sound generator.

More than 450 different types of synth sounds can be played while editing is possible via attack, release, chorus and delay/reverb knobs.

In addition to playing the synth sounds by themselves, it is possible to combine the normal banjo sound with the synth sound.



Roland GR-20 synthesizer module



Boss GT-8 effects processor

Effects processor

The GR-20 makes a great combination with the Boss GT-8 effects processor. Forty-four effect categories are built into the GT-8 including compressors, reverbs, choruses, equalizers, wah models, noise gates etc.

It features a mode to combine several effects simultaneously.

It has over 200 preset patches and 140 user patches.

The settings for effect sounds stored in the GT-8 can be transmitted to the GR-20.

Amplifier

I use a keyboard amplifier to get the full range of synthesizer sounds. Guitar amplifiers have a more limited range of sounds.

OVERVIEW

