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Radial Gold Digger & Cherry Picker

Mic & Preamp Selectors

Radial's latest pair of problem-solvers let you compare multiple mics using a single preamp, or switch a single mic between several preamps.

HUGH ROBJOHNS

Canadian manufacturers Radial are well known for their wide range of robust, elegant, and usually quite ingenious products, which provide practical solutions to real-world problems. The new Radial PS4 Cherry Picker and MS4 Gold Digger are yet more 'real-world solutions' which provide signal-switching functionality.

The Cherry Picker is a 1-into-4 switcher, which routes a single mic or line-level source to any one of four outputs, using military-grade sealed gold-contact relays in an entirely passive signal path. It also features individually switchable output ground lifts and a selectable +48V phantom supply for the input if a powered mic is used as the source. The Gold Digger does the opposite, routing one

of four sources to a single destination; optimised specifically for microphone switching, it includes adjustable attenuation for source level matching and switchable phantom power supplies for each input.

Both units are constructed in the same ultra-robust manner as the company's classic DI boxes, using heavy 14-gauge interlocking U-shaped folded-steel plates. The outer section is arranged to overhang the front-panel controls to afford a useful level of protection, and the non-slip rubber base (and sheer weight!) guarantees that these units stay where you put them.

Although the signal paths in both units are passive, power is required to activate the switching relays, and that comes from a supplied wall-wart power supply providing up to 400mA at 15V DC. All of

the input and output XLR connectors are located on the rear panel, along with an external DC coaxial power inlet and an associated cord-grip which is a thoughtful inclusion. All of the user controls are located on the front panel, and simple switch configuration graphics are screen-printed on the top plate, along with the model name and manufacturer logo. The Gold Digger is painted black, while the Cherry Picker is a deep red colour, both with very clear white-on-black labelling.

MS4 Gold Digger

The Gold Digger is described as a four-channel mic selector, and it's intended to allow instant comparison between up to four different mics, feeding a single mic preamp. Each input channel is provided with two buttons, two LEDs, and a rotary control. A small white momentary 'On' button routes that channel's source to the output, a green LED confirming the 'selected' status. Phantom power can be enabled for each channel independently via a recessed button, with an associated red warning LED.

The final channel control is a rotary 'Trim' knob that attenuates the microphone signal so that louder mics can be turned down to match the level

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» of quieter ones, thus making comparison fairer and more informative. Being a passive balanced attenuator, this control increases the input impedance seen by the mic as it is turned down, and this might alter slightly the tonality of dynamic mics in particular. However, in general it will be high-output capacitor mics that will need to be attenuated, and the varying impedance won't normally have any influence on their sound character at all.

With the trim control set to maximum I measured less than 0.2dB of signal loss through the unit, and the impedance seen by the mic was virtually the same as that of the connected preamp itself. When the Gold Digger is switched to a different input source the input impedance rises on the disconnected source to about 8kΩ, but the phantom power remains on so there are no pops, bangs or splats when switching between sources, and powered mics remain quite happy.

With the trim control turned down midway to the 12 o'clock position I measured the attenuation at about 15dB, although the precise attenuation will depend partially on the connected preamp's input impedance. As the trim control is turned down the impedance rises gradually, and at the halfway position it was about 7.5kΩ.

The relay switching is configured so that only one source can be routed to the output at any one time, and selecting

a new source automatically disengages the previous selection — but without any clicks. If power is lost, all the relays drop out and no signal is passed through the unit at all.

The source switching is completely silent and click-free but, strangely, the signal path is not activated until the push-button is released. As a selector button is pressed in, the corresponding green 'selected' LED illuminates straight away — as you would expect — but the audio path isn't actually made until the button is fully released again! The

output channel has only two push buttons associated with it. A small white momentary button with a green 'selected' LED determines to which output the source signal is routed, while a second latching white button lifts the pin-1 ground connection of the corresponding output XLR to avoid ground loops. In contrast to the Gold Digger, the selector buttons on the Cherry Picker work immediately, with the signal path being made as soon as the relevant button is pressed in, rather than on its release!

There are also two buttons on

"Units designed for comparing different microphones, complete with phantom power provision, are rather rare."

inevitable result is that there is a muted period as you press and then release the selector button. Although I found these mutes a little disconcerting at times, this probably isn't a major issue in practice, but is certainly something to beware of. On the more positive side, being able to hold a selector button in to provide a full mute might be a useful feature.

The Gold Digger can be used to switch between microphones for other purposes than simple comparisons. For example, it could provide a way of switching between a main and a reserve microphone, and Radial also suggest using it to compare different DI boxes. At a push, the Gold Digger could also be used to switch between different line-level sources, although the input impedance would only be about 6kΩ with the trimmer maxed out, and that might be a little low for some line output devices. Having said that, I tried switching between line-level sources as an experiment and found that it worked perfectly well — nothing blew up or caught fire!

The Gold Digger is generally a well thought-out and versatile unit, built to the usual high standards we've come to expect of Radial, and it's quite remarkable how useful a product like this actually is! I'm not quite sure what to make of the 'release to switch' buttons — I'd have preferred a switcher that worked when the button was pressed in, but it's certainly not a deal-breaker.

PS4 Cherry Picker

The dark red Cherry Picker is slightly simpler than the Gold Digger, as each

the left-hand side of the front panel associated with the input source. A white latching push-button mutes the input signal, while an adjacent recessed button provides 48V phantom power — and both have red warning LEDs.

The Cherry Picker routes a source — be it a microphone or a line-level device — to any one of four destinations, so it can be used to send the output from a microphone to any of four different preamps, or even to four different talkback destinations, for example. Alternatively, you could use it to send the output from a mic preamp to different recorder channels, or different outboard effects processors... and whatever else you can imagine! This is a superbly versatile little unit that works extremely well, with glitch-free instant switching.

Conclusion

Simple passive line-level signal switchers are available from many manufacturers across a wide range of prices. However, units designed for comparing different microphones, complete with phantom power provision, are rather rare. Indeed, the only one I can think of is the Manley MicMAID (reviewed in SOS Feb 2011) which, although a fabulously versatile unit, costs nearly £3,000 in the UK! If you require a device for comparing your mic and preamp choices, then, these devices represent decent value. ■■■

Radial Gold Digger & Cherry Picker \$350 each

PROS

- Typically robust Radial construction.
- Military-grade sealed gold-contact relays for reliable and silent switching.
- Entirely passive signal paths.
- Internal provision of phantom power.
- Versatile source or destination routing.

CONS

- Gold Digger routing on button release.
- Wall-wart power supply required to energise relays.

SUMMARY

The Cherry Picker and Gold Digger are solidly built, high-quality signal switchers with entirely passive signal paths through gold-contact sealed relays. The provision of internal phantom power makes life easy, and the units allow quick and easy comparisons to be made of different sources or processing paths.

\$ \$349.99 each.
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