



In the frame

Other options



DIA-COMPE NE BAR END SHIFTERS £74.99

Retro-style levers with 'power-ratchet friction control'. Similar down-tube levers are available for £49.99.

diacompe.com.tw



MICROSHIFT BS-M10 BAR END SHIFTERS £99.99

Microshift makes bar-end shifters for most gear setups. Front shifters are all friction operated, while most rear ones can be switched to friction operation. This setup is 2/3x10 MTB.

microshift.com

Campagnolo format, with a long-shift paddle behind the brake lever and a thumb-operated button for the return action. This sits high enough to be slightly awkward to reach from the drops, while being easily actuated from the hoods. The brake levers are angled outwards from the pivot for extra clearance when pulled back. The lever body underside is well made, with no major pressure points.

Attachment to the handlebar is straightforward, with the 4mm Allen bolt tightening the clamp band accessible once the rubber hood is peeled back from the bar. As always, the fun starts with cable installation. Nipple seating washers, or 'brake beads', must be fitted to the brake inner cables before they can be threaded into their levers and end caps fitted to the outer casings. Why not make them integral with the levers? Two brake-reach adjuster plates are provided for each lever to give three reach options.

Shift inner-cable installation is no more tricky than with any other mechanical dual-control lever, but for a couple of considerations. A cover plate retained by a minuscule screw must be removed to install the inner cable – and replaced in a particular way to avoid cracking it. And there's a choice of cable pulley spools. This allows the levers to be used with gear mechs requiring a range of cable pulls, while tuning the motion resistance sensation. The largest spool will pull the most cable but decreases the pull ratio. Luckily, the spools installed as delivered worked fine with my test bike's Shimano Deore rear and Campagnolo Record front mechs, avoiding the need for fat fingers to juggle with yet more minuscule screws to effect a change.

And the ride sensation? Braking: excellent feel and power with Shimano dual-pivot calipers. The short cable-pull is not suitable for V-brakes. Shifting gears: rapid and beyond smooth, to the point of lacking tactile sensation – an issue only exacerbated by the ease with



which today's chains swap between sprockets. Recognising the lack of sensation, Growtac sells various 'click plates' with from eight to 13 holes, depending on the number of cassette sprockets, to provide tactile feedback (although the clicks don't determine derailleur position). Unlike conventional friction shifting, the levers do not stay in position once a gear has been selected. Each returns to its resting place on release thanks to its one-way clutch.

The result is that any trimming required means pushing on one or the other sequentially rather than moving a single lever around to find the best mech position. With only a few hundred miles' practice, it is possible to get a feel for the lever movement needed to shift any number of gears without much trim needed, but I think the levers could usefully be shipped with a selection of click plates to help with gear selection, not offered as an extra. The only attention needed over weeks of use was to the 'derailleur holding force' on the first ride, which needed a 3mm Allen key. Otherwise, gear changing performance has been limited only by user skill – as always with friction shifting.

Richard Hallett

Verdict

A game changer for any cyclist wanting dual-control gear shifting unconstrained by the need for transmission component compatibility. The materials are high end and the styling bang up to date.