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# Volkswagen Caddy DSG

**M**ore and more manufacturers are offering the van operator an alternative to the conventional manual gearbox as an extra-cost option.

Many are favouring automated manual gearboxes; the one to be made available in the new Fiat Fiorino/Citroën Nemo/Peugeot Bipper is a case in point. Others are promoting the virtues of full automatics; the auto 'box' that can be specified in the latest Mercedes-Benz Sprinter is a prime example.

Nobody, however, has come up with a solution that is quite as novel — or quite as effective — as Volkswagen's DSG. It's so impressive that it's a worthy winner of the *What Van?* Editor's Choice Award for 2007.

The initials stand for Direct Shift Gearbox. A six-speeder, it can be used either as a manual or as an automatic and is marketed as an option in the Caddy van. The take-up among customers has been high, says VW, and we're not surprised.

DSG makes use of two wet clutches, in effect turning it into two gearboxes rolled into one. One clutch

looks after all the even-numbered gears while its stagemate takes charge of all those with odd numbers, plus reverse. As a consequence there's no loss of drive when the 'box changes gear.

It works thanks to something VW calls mechatronics. It describes a hydraulic and electronic control system that works in conjunction with twin input and output shafts. It allows the next gear that's going to be selected to be ready to leap into action in a mere

fraction of a second.

Let's suppose Caddy is accelerating in fourth gear in automatic mode, with fifth already engaged but not yet being used. Once the optimum shift point is reached the clutch responsible for fourth opens as the one responsible for fifth closes, and the 'box changes up with the driver barely being aware of what has happened.

This approach means that the 'box's kick-down facility works astonishingly

well because the lower gear has already been selected and leaps in immediately.

The floor-mounted gearshift looks like a conventional automatic transmission lever with 'D' for Drive, supplemented by 'S' for Sport. Move to the latter setting and 'changes occur at higher engine speeds.

Tap the lever to the left at any speed you care to name — the switch-over is jerk-free, as is the switch back — and you can use the 'box in the way you would a manual. Push the stick away from you and you go up the gears; pull it back and you come back down again.

Nor is there any danger that you'll stall when you're in manual mode. If you are approaching a junction, say, and forget to change down, DSG does it.

A dashboard display tells you which position you've chosen when you're in automatic mode, and which gear you are in if you switch to manual. Manual or auto, never forget that a van equipped with DSG will creep forwards when you're stationary in traffic.

DSG is so good that we'd like to see a version of it offered in Transporter. We've no doubt it would prove popular, so how about it VW? ♦

