

MOST IN-DEPTH TEST EVER!

BOXING CLEVER

 Fiat's new ComfortMatic gearbox has arrived in the UK. Our team of experts give it the *Practical Motorhome* test

It has been a long wait, almost 14 years, in fact. While the rest of Europe has benefited, UK motorcaravanners have had to compromise, but no more: the right-hand drive version of Fiat's Ducato, fitted with the ComfortMatic automatic gearbox, has arrived in the UK.

For many, automatic 'boxes are highly regarded, yet Fiat, the market-leading motorhome supplier, has been lagging behind in bringing us a version. Automatic gearboxes have been available on base vehicles from Ford, Mercedes, Renault and VW for a while, but with these brands being the minority in the market, compromises on preferred options have often had to be made.

Fiat has had its Comfort Matic system out for a while on the Continent, and it has been available for import, but this is not great for people who tour more in the UK than on the Continent.

Fiat's auto-shifted manual (ASM) system makes the gearbox far simpler. It also means that the sequential manual controls are more precise, quicker to pick up and easier to use (all it takes is a flick of the lever). The gear


you are in is shown on the instrument panel display, along with the mode (automatic or manual).

However, at £3000 for the automatic transmission, plus the 3.0-litre 160 MultiJet engine (ComfortMatic is not available for the 2.3-litre engine) this is a luxury that doesn't come cheap.

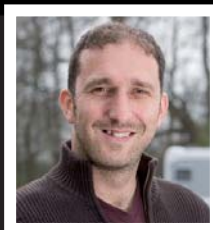
The advantages are clear, though. With no clutch pedal your left leg is free to rest and you don't have to worry about clutch control in traffic because the gearbox does it all for you. This means you can spend more time concentrating on your driving.

There are economic benefits, too. With an ASM system, you don't have to worry about rev ranges or over revving the engine, thereby wasting unnecessary fuel as the gearbox automatically detects the correct rev range and changes up and down for you.

HOW DO YOU USE IT?

To use it in fully automatic mode, flick the lever to select 'auto', release the handbrake and increase the revs. It will then pull away smoothly. In a couple of seconds the clutch will have fully engaged the drive. It's as easy as that! 

OUR TEST TEAM



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THE TRACK



Note to arty: change pic. New pics in 'overhead tracks folder'. Ta

To test Fiat's ComfortMatic system to the full, we took a Swift Kon-Tiki to the Chobham vehicle testing track. The track is used by the military, and a number of vehicle manufacturers, to test new cars, trucks and tanks. It has a full oval circuit with a twisty 'snake' section inside, a number of different driving surfaces, hill inclines and a skid pan.



Fiat's ComfortMatic system switches effortlessly between automatic and manual

THE TEST

For our track test, Swift lent us a Kon-Tiki fitted with the ComfortMatic system – the first right-hand drive version in the UK. Each member of our writing team (Jeremiah Mahadevan, Jack Bancroft, Phil Curry, Rob Ganley and “Diamond Dave” Newell) assessed it under various criteria, and here they tell you what they found:

PICK-UP

JB “In 95 per cent of driving conditions it was as smooth as a conventional automatic.”

PC “When shifting from first to second there was a noticeable power loss, you could tell that the engine was waiting for the gear to engage, and that created a small lurch. From second gear up, however, the changes were smooth.”

JM “The automated manual ‘box does well to cope with the torquey 3.0-litre engine. Lurching is still a bit of an issue, though, and in automatic mode it will not give you the kind of launch you can get from a torque-converter ‘box.”

REV RANGE

JB “As it is based on a manual gearbox, the engine never over revs, and that should make it

as economical as the manual.”

PC “In manual mode, you can rev the engine as high as you like, but you cannot fool the system. When changing up through the gears, it never peaked above 3000rpm and in kickdown (changing to a lower gear to accomplish the required acceleration) it managed the power being requested, perfectly.”

JM “I never got the feeling that this gearbox was caught out, or that it changed up too early, which is often a problem with automatics of all types.”

STANDING START

PC “The system performed well, but the range of first gear was too short, meaning not enough speed was gained before it changed into second.”

JM “The automatic setting is slightly sluggish on rapid departures from standstill. However, that’s a problem with many torque-converter gearboxes and, unlike those, the ComfortMatic can boast an excellent manual function to use as an alternative.”

ACCELERATION / DECELERATION RESPONSE

RG “Coming down an incline during our test, the auto-box selected, and stayed with, first

gear and you could feel the engine braking.”

JB “When the accelerator was floored, the kickdown, was immediate and unflustered, which should prove a great help when overtaking slower-moving vehicles.”

PC “Apart from the slip between first and second, the rest of the gears worked perfectly well. When a lot of power was needed for an overtaking move the gearbox easily changed down in response. The amount of engine braking was impressive, too, almost as if I was pulling the clutch up.”

JM “The ComfortMatic surprised me by tenaciously clinging to ratios, allowing proper utilisation of engine braking. I was particularly impressed with how smoothly it engine-braked down the steep inclines.”



Inclines were conquered with ease

REVERSE

RG “I was pleased to discover that it reversed effortlessly from a standing start up a 1-in-8 incline during our test.”

JB “There was no juddering at all, even on challenging hill starts. It passed with flying colours, even when ballasted with five people.”

PC “Reverse gear is selected by knocking the lever back from neutral. The reverse was very smooth and there were no pedal vibrations.”

JM “Reverse gear engages smoothly. Even when I was feathering the throttle and taking my foot on and off it rapidly, the ComfortMatic system was never flustered.”

UP HILL

RG “A button in front of the gear stick detects when there’s a heavy load on board, and optimises gear changes on hills. A standing hill start needed plenty of revs and a bit of handbrake control, as there’s no ‘creep’ with this ‘box, but that’s no real hardship.”

JB “Hill starts were accomplished by increasing the revs until you felt the clutch ‘bite’ and then releasing the handbrake. Unlike ‘boxes with a torque converter, this one did allow the motorhome



The Chobham test track has a number of different driving surfaces, including this cobbled section



The ComfortMatic provided a smooth drive in the upper gear ratios



The system's dashboard display

to roll back, so when pointing uphill, remember to treat it as you would a manual."

PC "It took a bit of getting used to, but the solution was simple in the end. Rev, then release the handbrake. You'll feel when 'bite' is achieved by the automated clutch and the 'van wants to pull."

JM "Uphill behaviour is one aspect of automated manual gearboxes that may confuse users of conventional automatics. Even though automated manuals 'creep' when you take your foot off the brake (as would a torque-converter gearbox), they don't do so on an incline, so the handbrake is still necessary to get you going (as it would be with a manual gearbox). However, this minor niggle aside, the ComfortMatic 'box holds its own up gradients and, unlike some of its predecessors, it makes going uphill seem easy."

TOWN

RG "I found our test model – based on Swift's Kon-Tiki 665S – maxed-out too quickly in first gear. In stop-start traffic, this meant a fair bit of lurching back and forth between first and second

gears. I resorted to switching to manual mode in town traffic, to hold on to that first gear a little longer."

JB "I tried the 'funeral procession' test, maintaining a smooth walking pace, as one might have to in heavy traffic. It couldn't be faulted, even when tackling undulating paving at 1000rpm."

PC "The 'box coped very well when driving in low revs. It selected the best gears for the speed and power being applied, and was always right."

JM "The 'box was perfectly comfortable when driving at low speeds and wasn't panicked by any sudden changes. It did a good job of predicting which ratios a driver would require. It will also be more economical than a torque-converter auto-box, making it a more cost-effective day-to-day prospect."

LONG HAUL

RG "The Kon-Tiki progressed smoothly through the upper ratios on the open road, making for an effortless, relaxing drive."

PC "It's certainly easier on your left leg. It comfortably went through the gears, and even in fifth and sixth there was still

plenty of acceleration there.

It didn't zip straight up to top gear when the pedal was pressed flat like planet-gear torque-converter units do.

It felt much like driving a manual on motorway trips: get into top gear, rest your left foot and forget about it."

JM "Once you get your speed up it behaves just like a good gearbox should. It isn't unnecessarily eager to get up to sixth gear, like some torque converter gearboxes can be. And, once it's up there, it's thoroughly refined. The added fuel frugality is a benefit, too."

VERDICT

This is one of the best auto-shift manual gearboxes we've come across. Most automatics offer smoother drives and are popular despite the penalties of the additional weight and fuel usage. But not any more. The Fiat ComfortMatic system is a manual with a computer doing the work. It drove like a manual, reversed like a manual and changed better than a manual, or an automatic. If you're looking for an automatic 'van, the market-leading cab provider has finally delivered. ☺

Diamond Dave



The new Fiat ComfortMatic automatic transmission, which was launched in the UK last October, is finally starting to filter through on production motorhomes. But what does it offer and how does it achieve it? Well, as I said a few months ago, it's actually an auto-shifted manual type of gearbox, and when I looked at the demo unit on a Fiat show stand, it bore a striking resemblance to the standard manual transmission. The major difference is that the gear change linkage has been replaced by a cluster of electronically controlled servos and will manage the shifts between the cogs for you.

This is not new technology as it has been available on vehicles such as the Sprinter (Sprintshift), Transit (Durashift) and Renault Master (Quickshift) for a while, but it is the first ASM from Fiat to hit the 'van world.

Thankfully, it seems Fiat has learned from the experiences of the other manufacturers and have programmed the gear changes to allow a smooth, but quick, take off from standstill.

I remember being scared stupid by a Sprintshift-equipped 'van once. I was pulling out across a busy road and when I was only half-way across, it decided to change into second. *Gulp!*



CAN IT TOW EFFECTIVELY?

Jack Bancroft (pictured) says: "It seems like it. According to the VIN plate there is no reduction in the gross train weight. Check with your dealer, but I can't see anything overheating here like a torque-converter 'box system has a tendency to do."