Making the Transit Bus Side Door Open Fully VM 2006 on (Series 7)

One of the drawbacks of the Ford Transit bus is the baffling idea of only making the side door open halfway. The body and door is based on the van (which fully opens) so it shares the same parts, Ford then modify the van body and door to make it fit their idea of what is required on the bus.

When the van body is modified at the factory, a step is made into the floor platform to aid entry. Rather than modify the sliding mechanism Ford prefer to only allow a half opening. To be fair to Ford, in full bus trim with 12 seats it is not strictly necessary, as the configuration of the seats allows easy access for passengers (perhaps if you were a fat person maybe not). However for those like me that require the bus to move cargo as well as people it is a pain. Ford could easily make the design from the factory like any other bus/van from all the other manufacturers.

Why not buy the van and add seats you ask? Well the bus has a much higher level of equipment as well as being fully lined and a proper floor, plus the step IS handy... and the full windows makes it very easy to see out of. I have removed all the row 3 and row 4 seats, and installed one of the single seats at row 2 to make row 3 a three seater. This makes the

bus a 6 seater and leaves heaps of room for cargo. As you can see with the door the way it is leaves little room for access to the cargo space, which would be real handy.

After owning this bus for a year, I finally decided to do something about it, not the least because everyone told me it couldn't be done.

The job is relatively simple if you are handy with tools and requires no special tools not available to the regular handy person and should take maybe 4 – 6 hours. I took more as there was a lot of 'thinking' time. Hopefully this guide will save you this time. Ford have made the conversion possible as the main requirement is already in place: the runner along the bus rear panel is already the right length.

First job is to remove the rubber stops from the door.

Ford did provide the holes where the rubber stop would be on the van, pity they did not also put in the captured nuts. To fix this rubber stop in place required removing the door lining, carefully, then removing enough of the plastic splash liner so you can get your hand in behind. Find a couple of nuts to fit the bolts you have just removed and reinstall the rubber bump stop.

Remove the arm from the bottom roller, then remove the bracket from the door. Make sure you protect the door from scratching your body work as at this stage it will flop about.

Remove the upper rubber stopper. We won't need this one, mainly because Ford in their wisdom did not include the captive nuts in the alternate position, and because it is impossible to access behind we will put in the too hard basket. It isn't really needed anyway.

In removing the trim from the floor and step well there are two nuts on the back of the vertical trim closest to the rear of the bus. It is also glued on to the main trim. So don't half wreck it like I did trying to figure it out!

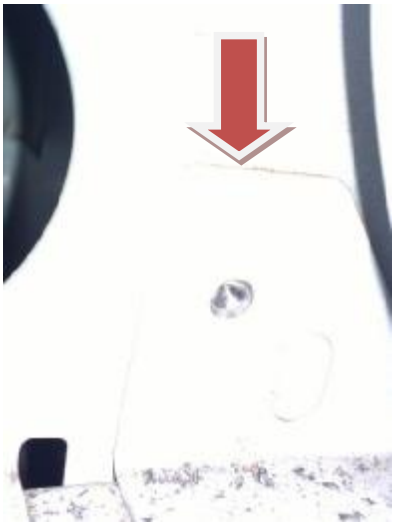
Now here comes the tricky bits. You need to make a solid spacer to pack out the bracket and roller removed earlier. Here I have used some mild steel hex bar. The spacer needs to be 45mm high. I have drilled and tapped each end. It needs to be solid as this piece provides the guidance for the door to close properly.

You need to remove the roller and the spindle and re-install on the other side of the bracket. To do this, grind off the excess from the spindle that protrudes from the back side of the bracket, then using a centre punch and with the bracket supported over the top of your vice, hammer it hard to remove the spindle. It is just a press fit so it will drive out if hit hard enough, but you must grind the excess that sits proud otherwise it will never move.

Using a vice, press the roller back into the bracket, but obviously on the other side of the bracket. Here is what it will look like.

You will need to put a spot of weld on the spindle to ensure it does not work its way out.

Now another tricky bit. We need to re-use the original track so we need to remove it from its original position. To do this requires drilling out the spot welds. Centre punch the middle of each spot weld, then using a small (say 3mm) drill, drill a pilot hole. Drill out each spot weld with an 8mm drill. You won't be able to drill out the spot welds underneath the floor, so brute force will be needed



(Left) Start by drilling out the bracket that holds the rearmost part of the track (closest to the mechanism that holds the door in the open position).

(Right) Then drill out the rest of the spot welds

The spot welds that are under the floor need to be ‘encouraged’ out with some force. The best way is to use an old wood chisel and hammer and cut through the welds. They will cut through with moderate force easily enough. The same chisel can be used to convince any other belligerent welds that drilling does not quite release.

This is what you end up with, one track.

To get to the next step you will need to trim the plastic cover back to the support bracket behind. Use your wood chisel to get the floor as flat as possible.

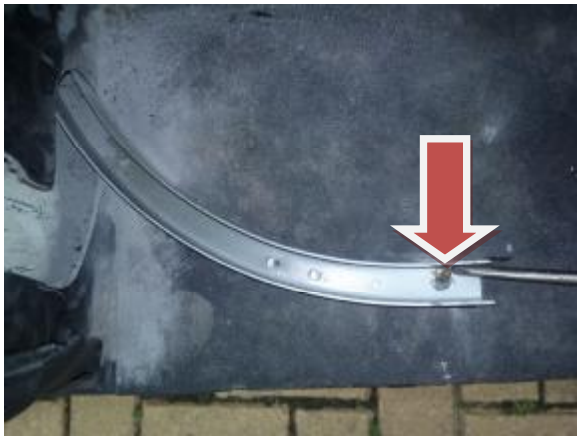
Bolt the roller into place on the door. Note it is upside down to the original position. Gently close the door as far as it will close. It won't close all the way as the plastic step well cover is in the way. Scribe out where the roller interferes with the closing action. I used a hole saw to cut a series of holes then a wood rasp to get the final fit so that the roller will allow the door to fully close.

Place the track onto the floor upside down, making sure the track is hard up against the front of the step well where the plastic was trimmed in the previous instruction. Also make sure the track is hard up against the body work at the rear of the step well. Using a pencil, mark where it fits onto the floor of the step well. This step makes sure that the original shape is maintained when the track is modified later.

Next place the track onto something with a square corner. I have used a piece of scrap chipboard. This step is important as we will be wanting to replicate the closing action of the original track. Square up the long edge of the track along one edge of the square. Then mark with a pencil the outline of the track. Be accurate to mark the end of the curved part of the track.

Turn the track upside down and work the track over the template you have just drawn until the end of the curved piece of track is just at the point where the drawn template starts to curve away. See picture to right, red arrow. Mark the track at the point on the template where the original track ends. See green arrow.

Now cut the track.



Place the curved piece of track onto the template you marked on the floor of the step well earlier, making sure it is firmly against the front of the stairwell. Using a self drilling screw fix the track to the floor at the rear most point first, taking great care to be as accurate to your template as you can. You will need to place the screw as far to the inside of the track as you can as the plastic step well cover does not have any support any further out. At this point the screw will only just contact solid metal. Before drilling make sure there is nothing to drill into underneath the bus, in my bus the air-conditioning is routed close by.

Now place the straight piece of track onto the door opening. The trick here is to NOT have the end where the mechanism that holds the door in the open position hard against the bus frame. Where my screwdriver is pointing make sure there is enough clearance for the stopper to move as the door roller pushes against it. About 10mm should do it. Before screwing it to the floor put the roller into the track and fully open the door.

The stopper mechanism should be in the correct position without interfering with the door roller. Mark the position then screw in place at this end first, making sure there is nothing on the underside of the floor first. The front end of the track needs to be hard against the frame of the bus.

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Screw the track to the floor, using the drilled spot weld holes. Then guide the roller into the track and check for clearance from the screw heads. You can see I used 8mm tek screws. Adjust the roller on the adjustment at the door end if required

All that is now required is to cut a piece of U section to length. I only had a piece of box section that I cut the top from. Paint the track, I used white to make it look like part of the frame. One day I will remove and weld the two sections together, as I did not have a gas torch at the time.

Check the opening and closing of the door. Mine worked first try without any further adjustment.

Replace all the trim.

The track is not a very high profile so it does not hamper in any way people getting in and out of bus. So far I have had quite a few people in the back, no one has picked up the non-standard track or made any comment.

Good luck!