

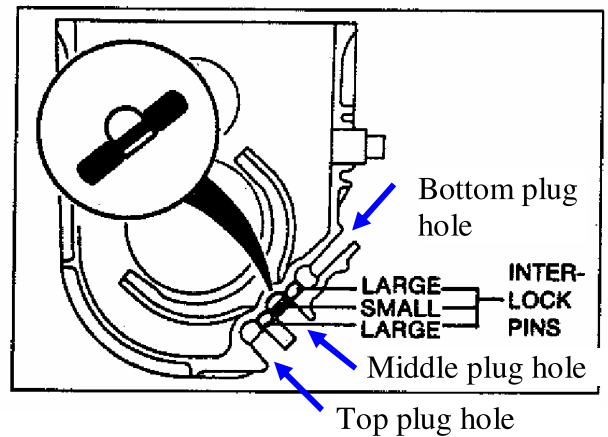
disassemble everything back to Item 8 on J-40 with the correct thrust washer sizes. Hopefully this isn't necessary, or at least you can switch them instead of buying new ones. Keep in mind the total size must be 6mm – so the possibilities are (front/rear) 2.5/3.5mm, 3.0 / 3.0, and 3.5/2.5.

If it's in spec, then stake the locknut.



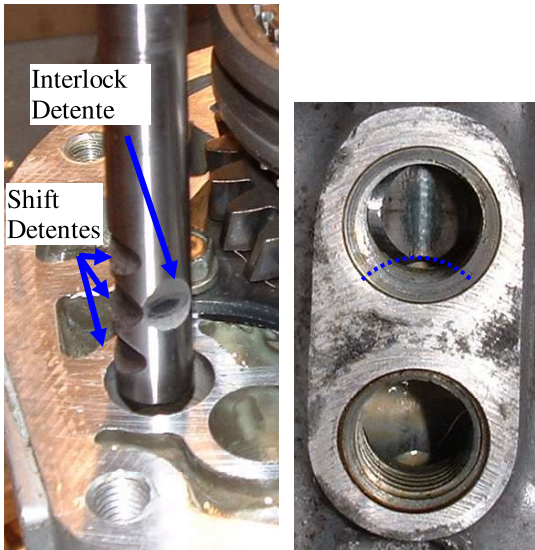
13-16. 5th synchro, gear, and bearing. (If 5th/Rev clutch sleeve isn't on yet, put it on). Slide the synchro, gear (snap ring item 14 should still be inside the gear), and 5th gear/bearing on the shaft.

17-19. Set on the thrust lock washer and ball, and the front c-washer set. Then use a feeler gauge to check that there is .004-.008" gap between the c-washers and thrust lock washer when the c-washer are fully seated in the shaft groove.

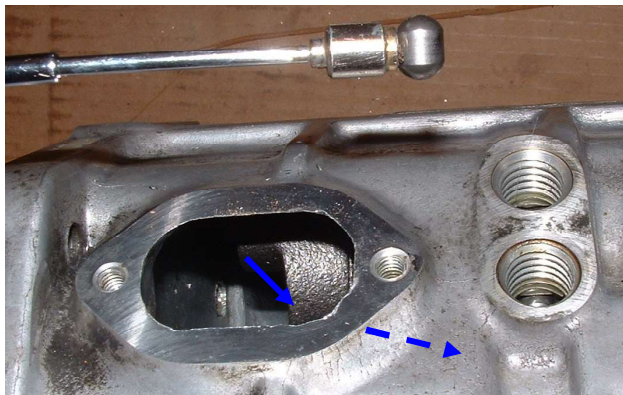


Get oriented with the plug holes in the housing. In the picture above, the housing is upside-down. Buried within the plug holes are the interlock pins. When one shift rod is in gear, the pins serve to lock the other two shift rods from moving.

Each plug hole has a ball-spring inside that engage a détente in the shift rod to give it that snappy feeling when it shifts and to keep it from sliding out of gear. These ball and spring parts go in after the shift rods and interlock pins are in place.



20. Install the 1-2 shift rod into the top hole of the housing. Make sure it goes through the hole in the 1-2 shift fork. Push it in all the way until the middle shift détoné is aligned with the top plug hole. Be sure the interlock détoné is pointed toward the bottom plug hole.



21. Set the large interlock pin on a magnetic pick-up and insert it through the 3-4 shift rod hole by the window.



Looking through the middle plug hole, use a pin punch in the bottom plug hole to push the pin

off the magnet and against the 1-2 interlock détoné.

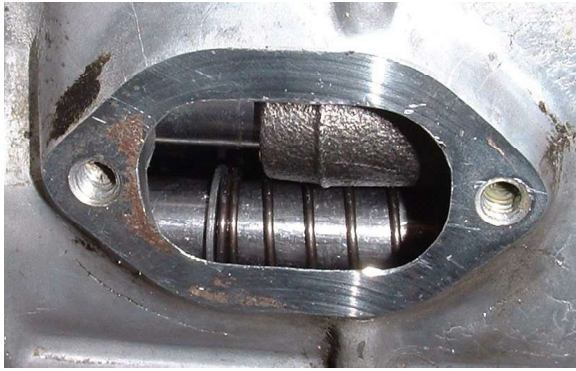
22-23. Slide the 3-4 shift rod into the housing, and expose the small hole in the rod at the middle plug hole. Don't forget to slide the rod through both shift forks. You'll notice the 3-4 shift rod is shorter than the 1-2 when it's assembled.



Place the small interlock pin into the 3-4 rod. Then rotate the 3-4 shift rod so that the small interlock pin is aligned with the large interlock pin, and the middle shift détoné is visible in the lower plug hole.

24. Slide the other large interlock pin in the bottom plug hole until it touches the 3-4 shift rod.

25-27. Set the 5-R shift fork on the clutch sleeve, slide the 5-R shift rod into the fork and then into the housing. When the shift rod first pushes through the back wall, set the spring on the rod. Push the 5-R shift rod in the rest of the way with the interlock détoné facing the other shift rods.



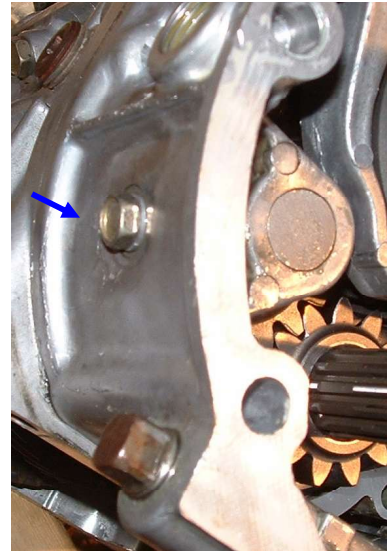
28. Install the c-clip on the 5-R shift rod, so that the spring is pressed against the rear of the housing. It's a real pain to do – you may need creative use of screwdrivers and needle-nose pliers to make it go in.

If you haven't done so already, put the roll pins in all 3 shift forks. Align the split of the roll pins toward the front.

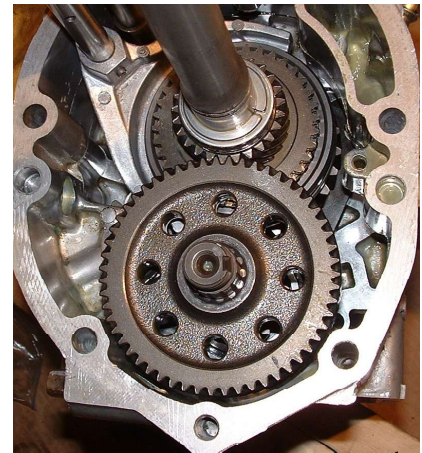


29-30. Now install the cap plugs, balls, and springs into the plug holes. Don't forget the bottom plug holes (unmarked in the FSM). Install the blind covers, and include the wiring harness holders. Test that the shift rods can move into all gears. Take a break.

31-32. Install the oil guide into the 5th-Rev housing. Put a thin layer of gasket sealant around the outside of the mating face, going around both the inside and outside of any bolt holes. Align the hole in the reverse idler shaft so that item 33 will insert easily. Then slide the housing in place.



33. Assemble the idler shaft lock bolt.



34-35. Slide the spacer and counter-5th gear onto the countershaft.



36. Tap the countershaft rear bearing on with a pipe and mallet. A large socket worked well. Again, take care to not damage the bearing or get dirt on the parts.