

By David Lea:
(Edits by cyclehead)

The smt ecu measures crank vs input shaft speed. It shifts fairly quickly but won't engage the clutch until the 2 shafts get within 500 rpm of each other.

Edit: To speed up SMT shifting, you want to reduce the time it takes to get the shaft speeds to match. Suggestions:

1. The throttle body mod ("quick shift mod") removes the redundant cable back up allowing the throttle body to close sooner. You no longer need to lift the gas to get that perfect shift. You can just leave your foot on the floor and hit the button.
2. The other thing you can do is reduce the rotating mass of the engine allowing the revs to fall faster. So a lightweight flywheel and under drive pulleys are your friend.
3. The third thing you can do is put in a very heavy pressure plate. The smt opens the clutch by duty cycling a solenoid. There is a limited size fluid-return that allows the clutch to re-engage. The stronger the pressure plate, the faster the fluid returns and the faster the clutch re-engages.
4. Edit: SMT forums report that the newer ECUs (not transmission computer) will facilitate faster shifts with less clutch slipping. ECUs are labeled with a large black sequence number. They go from something like #62 to #79. I believe all the 6 speed SMTs came with 70 series ECUs. (#71-#79). So #79 would be the best ECU for SMT shifting.

I did all this on a 2zz swap smt and the car would bark the tires in second gear if my foot was on the floor.

Permanent “quick shift” mod to throttle body: Edit: I reached mine from below the car for the bottom bolts, and from above for the top two bolts:





5/16 or 8mm wrench.

Cut the tab halfway through. Then bend it back to break it the rest of the way.



After the tab is cut off:



Edit:

Reversible "quick shift" mod to throttle body:

Buy, print or fabricate a spacer to prevent the metal tab from engaging with the throttle cable.

Asela Fernando sells this one...

https://www.etsy.com/listing/1671325126/mr2-smt-quick-shift-spacer?click_key=0b7fa3fdde3e9001f532761872739748009572e9%3A1671325126&click_sum=ab02916e&ga_order=most_relevant&ga_search_type=all&ga_view_type=gallery&ga_search_query=mr2+shift&ref=sr_gallery-1-1&organic_search_click=1&content_source=97e02d6d9be4affdbe292e84d8c864b6fa0d56b3%253A1671325126



Edit: The spacer pushes the pulley further forward, so I had to slide the throttle cable forward a little to align.



Edit: After loosening the jamb nuts and sliding the cable and housing further forward:



