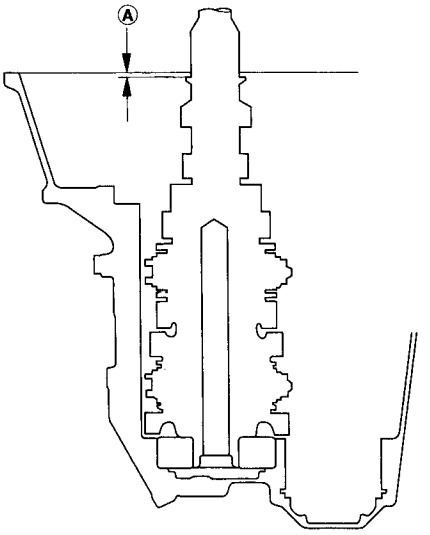
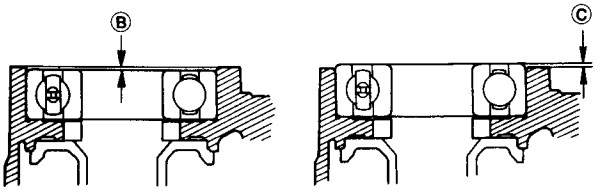
Mainshaft Thrust Shim

Adjustment

1. Remove the thrust shim and oil guide plate from the transmission housing.
2. Install the mainshaft in the transmission housing. Do not install the clutch housing side ball bearing.
3. Measure distance Ⓐ between the end of the transmission housing and mainshaft. Use a straight edge and feeler gauge, and measure at three locations and average the readings.



4. Set the mainshaft ball bearing in the clutch housing, and measure distance Ⓑ or Ⓒ between the surfaces of the clutch housing and the bearing inner race. Use a straight edge and feeler gauge, and measure at three locations and average the readings. Do not install the spring washer.



5. Select the proper thrust shim on the basis of the following calculations. Do not use more than two thrust shims.

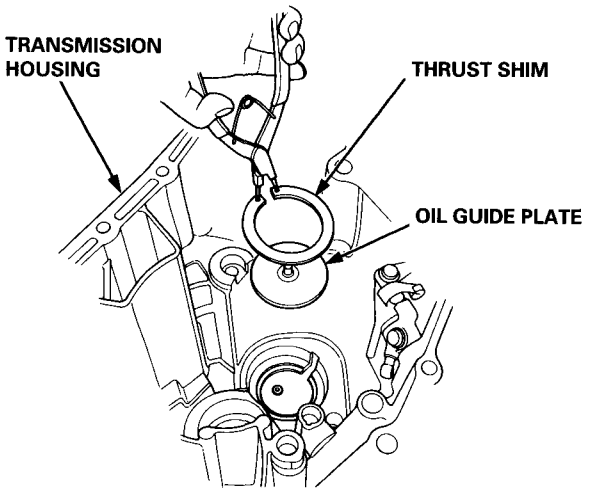
(Basic Formula)
A + B – 0.99 mm = shim thickness (max.)
A + B – 1.06 mm = shim thickness (min.)
A – C – 0.99 mm = shim thickness (max.)
A – C – 1.06 mm = shim thickness (min.)

82 mm THRUST SHIM

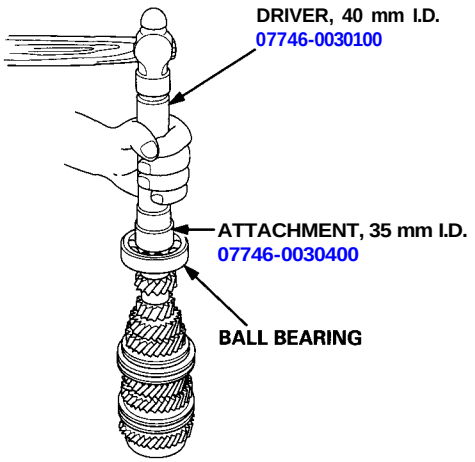
	Part Number	Thickness
A	23931 – PR8 – F00	0.60 mm (0.0236 in)
B	23932 – PR8 – F00	0.63 mm (0.0248 in)
C	23933 – PR8 – F00	0.66 mm (0.0260 in)
D	23934 – PR8 – F00	0.69 mm (0.0272 in)
E	23935 – PR8 – F00	0.72 mm (0.0283 in)
F	23936 – PR8 – F00	0.75 mm (0.0295 in)
G	23937 – PR8 – F00	0.78 mm (0.0307 in)
H	23938 – PR8 – F00	0.81 mm (0.0319 in)
I	23939 – PR8 – F00	0.84 mm (0.0331 in)
J	23940 – PR8 – F00	0.87 mm (0.0343 in)
K	23941 – PR8 – F00	0.90 mm (0.0354 in)
L	23942 – PR8 – F00	0.93 mm (0.0366 in)
M	23943 – PR8 – F00	0.96 mm (0.0378 in)
N	23944 – PR8 – F00	0.99 mm (0.0390 in)
O	23945 – PR8 – F00	1.02 mm (0.0402 in)
P	23946 – PR8 – F00	1.05 mm (0.0413 in)
Q	23947 – PR8 – F00	1.08 mm (0.0425 in)
R	23948 – PR8 – F00	1.11 mm (0.0437 in)
S	23949 – PR8 – F00	1.14 mm (0.0449 in)
T	23950 – PR8 – F00	1.17 mm (0.0461 in)
U	23951 – PR8 – F00	1.20 mm (0.0472 in)

NOTE: Clean all the parts thoroughly before installation.

6. Install the oil guide plate and thrust shim into the transmission housing.



7. Install the ball bearing onto the mainshaft using the special tools.



8. Install the 75 mm spring washer and mainshaft assembly into the clutch housing.

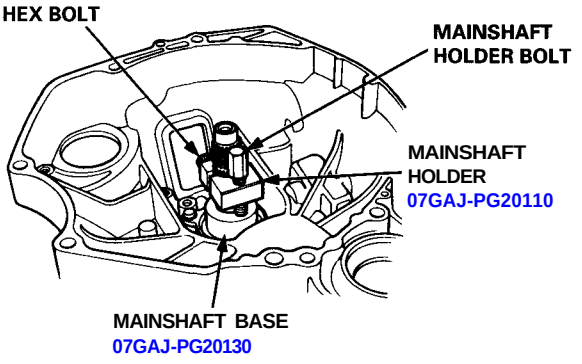
9. Install the transmission housing.

Torque: 44 N-m (4.5 kgf-m, 33 lbf-ft)

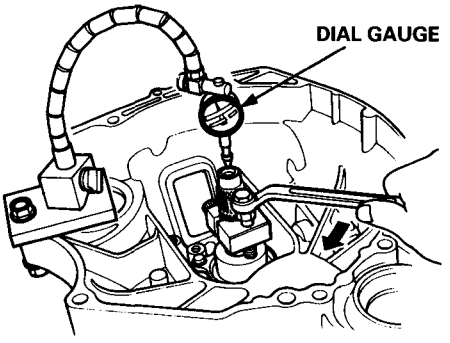
10. Check the thrust clearance in the manner described below. Carry out the measurement at normal room temperature.

a. Slide the mainshaft base over the mainshaft,
b. Attach the mainshaft holder to the mainshaft as follows:

- Back-out the mainshaft holder bolt and loosen the two hex bolts.
- Fit the holder over the mainshaft so its lip is towards the transmission.
- Align the mainshaft holder's lip around the groove at the inside of the mainshaft splines, then tighten the hex bolts.



c. Seat the mainshaft full by tapping its end with a plastic hammer,
d. Thread the mainshaft holder bolt in until it just contacts the wide surface of the mainshaft base.
e. Zero a dial gauge on the end of the mainshaft.



f. Turn the mainshaft holder bolt clockwise; stop turning when the dial gauge has reached its maximum movement. The reading on the dial gauge is the amount of mainshaft end play.

CAUTION: Turning the shaft holder bolt more then 60 degrees after the needle of the dial gauge stops moving may damage the transmission.

g. If the reading is within the standard, the clearance is correct.
If the reading is not within the standard, recheck the shim thickness.

Standard: 0.14 - 0.21 mm (0.006 - 0.008 in)