

Identifying Toyota Manual Transmissions

By Mike Weinberg
Contributing Editor

Toyota Motor Co., one of the world's largest auto manufacturers, brings to market a broad line of cars and trucks. Its presence in the market is very significant because of the popularity of its car line and its reputation for excellent quality. Toyota manufactures a broad line of manual transmissions, and in the following pages we describe and identify the most-common units in the field.

One of the major problems confronting our industry is the explosive growth of transmission models. The biggest problem is just

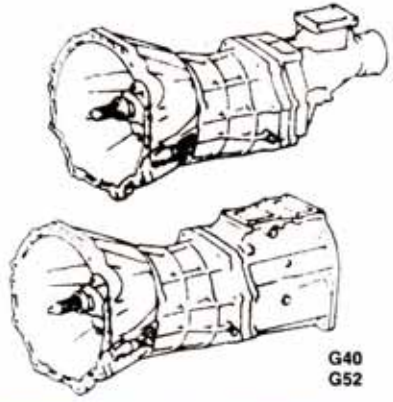
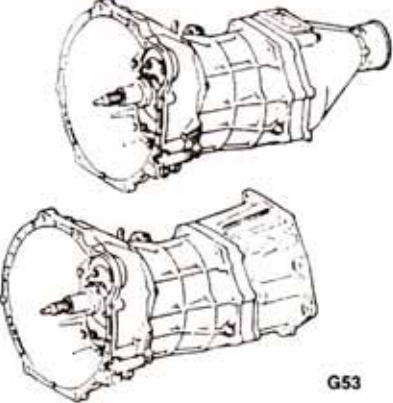

knowing what you are working on. When shops order parts, they have great difficulty in getting the right parts, because the supplier has no way to know what the shop is looking for if the shop doesn't know what it's working on. It is your obligation as a professional to learn how to positively identify that which you propose to fix.

Starting with a clean sheet of paper, list the year, make, model, production date and vehicle ID number. Under the hood, on the firewall or inner fender well, there usually will be an identification

plate that will list the vehicle's engine model and transmission model. Without these key items, trying to order parts becomes an exercise in futility. The dealer cannot help without this information, and neither can aftermarket vendors. You wind up with "guesstimates" that are dangerous and expensive.

Each time you speak with a customer and offer any kind of ballpark figure, the low end becomes carved in stone. For instance, if you tell a customer the

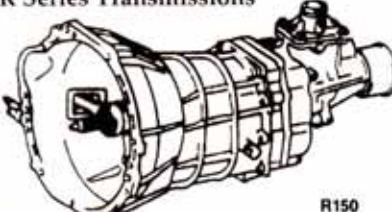
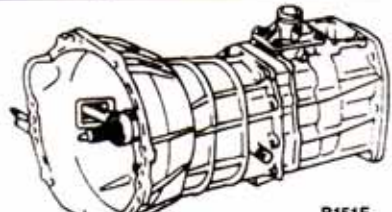
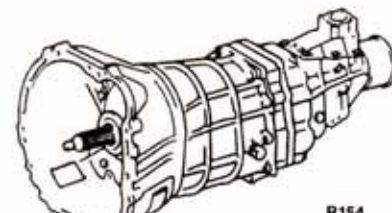
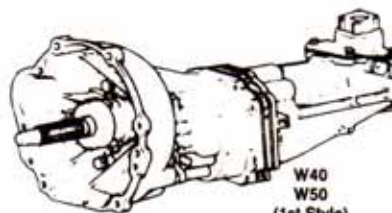
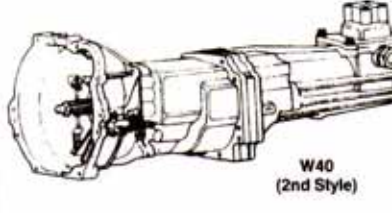
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Transmission Series	Model/Year	Key Differences	Lubricant/Cap.
G Series Transmissions  <p>G40 G52</p>	<p>G40 LN51 Truck/ 1984 - 1985</p> <p>G52 LN4# Truck/ 1983</p> <p>LN5# Truck/ 1984 - 1985</p> <p>LN65 Truck 4x4/ 1984</p> <p>RN6# Truck 4x4/ 1984 - On</p>	<p>Starter mounts on left side of clutch housing Intermediate plate is cast iron Case parts are cast aluminum ID. No. - Bottom side of case by intermediate plate</p>	<p>SAE 75W90 or 80W-90/ 4x2 - 2.2L (2.3 qt) 4x4 - 3.9L (4.1 qt.)</p>
 <p>G53</p>	<p>YR2# Van 2WD/ 1986 - On</p> <p>YR3# Van 4WD/ 1986 - On</p>	<p>Starter mounts on left side of clutch housing Shift mechanism is mounted on the side of the transmission Intermediate plate is cast iron</p> <p>ID. No. - Bottom side of case by intermediate plate</p>	<p>SAE 75W-90/ 4x2 - 2.2L (2.3 qt) 4x4 - 2.6L (2.3 qt.)</p> <p>I.D. No. Notes: 3 0 9 0 0 0 0 0</p> <p>  </p>

repair "should be in the neighborhood of \$1,200 to \$1,400," you might just as well have said \$1,200, because that is all the person hears. I am not sure whether it is wishful thinking or "selective hearing," but you have just committed yourself to a low-end figure, because customers hear what they want to hear.

The next step in this sad saga is that when you now have some agreement with the customer, the parts you receive will be wrong because of lack of information, and the job will be delayed. Now we have extra freight, and when you finally obtain the information to get the right parts, they will inevitably be more expensive than what you quoted.

Now we hear the bell ring for round 2 with the customer. What you fail to realize as you begin the conversation is that the customer believes you have given him a blood oath on the low end of the price range. When you go back over the conversation and bring back the \$1,200-\$1,400 price range, the customer now becomes the victim

Transmission Series	Model/Year	Key Differences	Lubricant/Cap.
R Series Transmissions  <p>R150</p>	RN55 Truck/ 1986 - On	Starter mounts on right side of clutch housing Shift lever retainer is smaller than R154 and mounts flat on extension housing Release fork opening is on right side of the clutch housing Cast iron intermediate plate	SAE 75W-90 or 80W-90/ 2.6L (2.7 qt.)
 <p>R151F</p>	1986 - On	Basically the same as the R150 Extension housing is changed for adding the transfer case Output shaft is shorter than the R150 I.D. No. - Bottom side of intermediate plate (all transmissions)	SAE 75W-90 or 80W-90! 3.0L (3.2 qt.)
 <p>R154</p>	MA70 Supra 19861/2 - On	Starter mounts on left side of clutch housing Access holes in clutch housing for clutch cover bolts Intermediate plate is cast iron Speed sensor mounted on extension housing Shift lever retainer mounted at an angle on the extension housing	I.D. No. Notes: 3 0 9 0 0 0 0 0 ┌───┐ │ 5-digit Production Number or 2-Digit Production Number │ └───┘ ┌───┐ │ Manufacturing Month: │ │ January 01 │ │ December 12 │ └───┘ Last Digit of Manufacturing Year: 1983
W Series Transmissions  <p>W40 W50 (1st Style)</p>	W40 RA2#, 42B, MA4# Celica/ 1971 - 1981 W50 RN2# Truck/ 1975 - 1979 RA2#, 42B, MA4# Celica/1971 - 1981	Starter mounts on right side of clutch housing Shift lever retainer is mounted at an angle on the extension housing Case parts are cast aluminum, except the main case is cast iron I.D. No. - Bottom left side of intermediate plate (W40, 42, 50, 52)	
 <p>W40 (2nd Style)</p>	RT6#, 7#, MX1#, 2# Corona MK II/ 1972 - 1974 MS6#, 75 Crown/ 1971 - 1973 RT8#, 95 Corona/ 1972 - 1974	Basically the same as the W40, W50 (1st Style) Extension housing is changed for mounting the shift lever retainer flat Starter mounts on left side of clutch housing on MX1#, 2# Corona MK II	SAE 75W-90 or 80W-90/ W40 - 2.7L (2.8 qt) W50 - 2.6L (2.7 qt)

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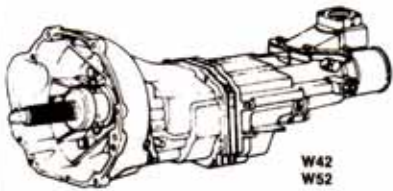
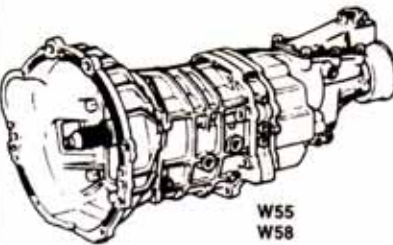
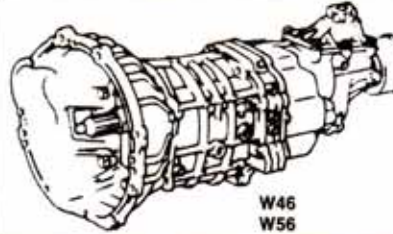
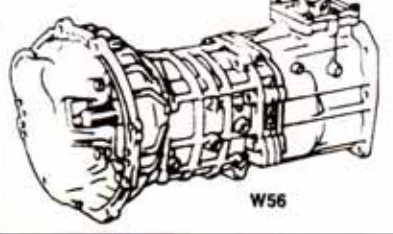
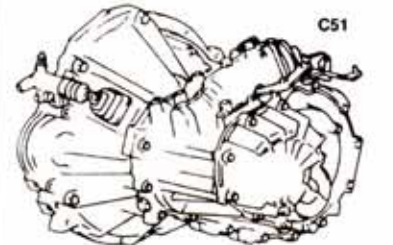
of "the unscrupulous motor-vehicle repair industry." At this point the customer would gleefully wish your entire family a slow, lingering death at the hand of terrorist death

squads. Avoid these minefields and work with less stress by getting all the information before you make any sort of commitment.

In order to help you identify

Toyota manual transmissions, please save the accompanying charts, as they will come in handy in the future. Toyota Motor Co. has

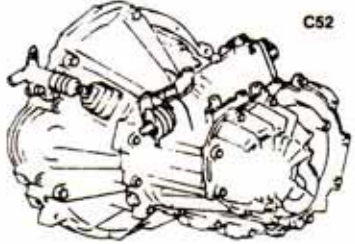

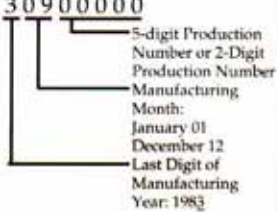
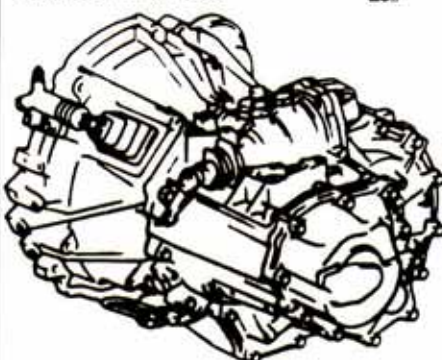
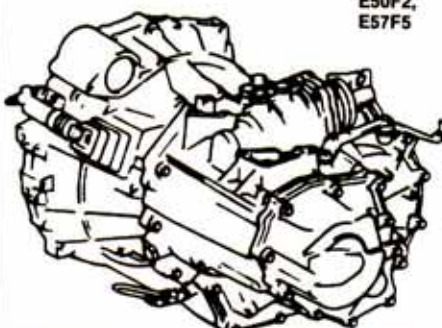
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Transmission Series	Model/Year	Key Differences	Lubricant/Cap.
W Series Transmissions 	W42 RT10, 11 Corona/ 1974-1979 MX1 #, 2# Corona MK II/1974 - 1977 RN3#, 4# Truck 1982 - 1984 W52 RT10, 11 Corona/ 1974 - 1979 RN3#, 4# Truck 1979 - 1984	Starter mounts on left side of clutch housing for the RN3#, 4# Truck and MX1#, 2# Corona MK II right side for the RT10,11 Corona Construction change made to the extension housing and shift lever retainer	I.D. No. Notes: 3 0 9 0 0 0 0 0 5-digit Production Number or 2-Digit Production Number Manufacturing Month: January 01 December 12 Last Digit of Manufacturing Year: 1983
	W55 RA43B, Celica 1981 - 1986 MA61, RA6# Celica-Supra/1982 - 1986 W58 MX7# Cressida/ 1985 - On MA7# Supra! 1986 - On	Starter mounts on right side of clutch housing Shift lever retainer is mounted at an angle on the extension housing Case parts are cast aluminum	
	W46 RN5#, LN56 Truck/ 1985 - On W56 RN5#, 7# Truck/ 1986 - On	Basically the same as the W55, W58 Extension housing is changed in construction ID. No. - Bottom side of intermediate plate (W46, 55, 56, 58)	SAE 75W-90 or 80W-90/ 4x2 - 2.4L (2.5 qt) 4x4 - 3.0L (3.2 qt)
	W56 RN6# Truck/ 1986 - On	Addition of the transfer case housing	I.D. No. Notes: 3 0 9 0 0 0 0 0 5-digit Production Number or 2-Digit Production Number Manufacturing Month: January 01 December 12 Last Digit of Manufacturing Year: 1983
Transaxles Series	Model/Year	Key Differences	Lubricant/Cap.
C Series Transaxles 	C51 AE82 Corolla/ 1984 - On	Starter mounts on left side of clutch housing Shift lever retainer is bolted to the case ID. No. - Top front edge of clutch housing	

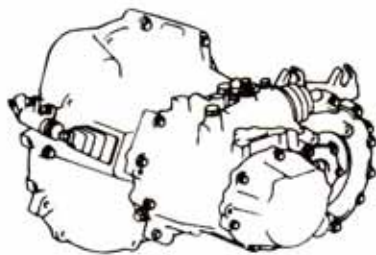
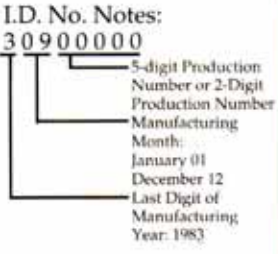
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 ENGINE FAMILY: 1E1E
 VALVE CLEARANCE: INTAKE 0.15 - 0.25 MM (0.006 - 0.010 IN.)
 EXHAUST 0.15 - 0.25 MM (0.006 - 0.010 IN.)
 NO OTHER ADJUSTMENTS NEEDED
 THIS VEHICLE CONFORMS TO U.S. EPA AND STATE OF CALIFORNIA REGULATIONS APPLICABLE TO
 1987 MODEL YEAR NEW TOYOTA VEHICLES PROVIDED THAT THE VEHICLE IS ONLY INTRODUCED
 INTO COMMERCIAL USE IN THE STATE OF CALIFORNIA OR A STATE CONTIGUOUS TO CALIFORNIA OR IN
 A STATE THAT UNDER THE AUTHORITY OF SECTION 17 OF THE CLEAN AIR ACT, HAS ADOPTED
 AND PLACED INTO EFFECT FOR THIS MODEL YEAR, THE CALIFORNIA STANDARDS TO WHICH THIS
 VEHICLE'S ENGINE FAMILY HAS BEEN CERTIFIED ON A STATE CONTIGUOUS TO SUCH A STATE.
 EXHAUST EMISSION STANDARDS STANDARD CATEGORY:
 CATALYST TYPE: TLEV
 CERTIFICATION USE: TLEV
 CERTIFIED: Q5
 2 7 1 J 0 2 G Y
 75200 3RZ - FE RZN CAL

Transaxles Series	Model/Year	Key Differences	Lubricant/Cap.
C Series Transaxles 	AW11 MR2/ 1985 - On	Basically the same as the C51 Shift and select levers connect on the opposite side of the shift shaft ID. No. - Top front edge of clutch housing	SAE 75W-90 or 80W-90/ C5# - 2.6L (2.7 qt) C140, 150 - 2.4L (2.5 qt)
	EL31 Tercel 1987 - On	Starter mounts on right side of clutch housing Smaller version of the C51 End covers are pressed steel, C140 is flatter than C150 ID. No. - Top front edge of clutch housing	I.D. No. Notes: 3 0 9 0 0 0 0 0  5-digit Production Number or 2-Digit Production Number Manufacturing Month: January 01 December 12 Last Digit of Manufacturing Year: 1983
Transaxles Series	Model/Year	Key Differences	Lubricant/Cap.
E Series Transaxles 	AW11 MR2/ 1988 - On	Starter mounts on right side of clutch housing Shift lever is on the opposite side of case Oil cooler on bottom side of main case Similar in construction but larger than C series transaxle I.D. No. - Top front edge of clutch housing	API GL-5 SAE 75W-90! 4.2L (4.4 qt.)
	E56F5 All-Trac Camry 1988 - On E50F2 All-Trac Celica 1988 - On E57F5 All-Trac Corolla 1988 1/2 - On	Starter mounts on right side of clutch housing Shift lever retainer is bolted to the case Oil cooler on bottom side of main case Similar in construction but larger than C series transaxle ID. No. - Top front edge of clutch housing	API GL-5 SAE 75W-90 Or SAE 80W90/E56 & 57F5 5.0L (5.3 qt) E50F2 4.8L (5.1 qt.) SAE 90W - Above -18 °C (0°F) SAE 80W - Below -180° (0°F) Note:

up to standards

Transaxles Series	Model/Year	Key Differences	Lubricant/Cap.
S Series Transaxles S50, S51, S53 	S50 CE80 Corolla/ 1984 - 1985 S51 SV11 Camry/ 1983 - On S53 ST161, 162 Celica/ 1986 - On	Starter mounts on left side of clutch housing Shift lever retainer is threaded into the case Shift cable mounts are cast with the case ID. No. - Top front edge of clutch housing	ATF DEXRON II/ 2.6L (2.7 qt) I.D. No. Notes: 3 0 9 0 0 0 0 

been kind enough to make this information available to us, and it is up to you to take advantage of it.

I have never been able to work on a unit without knowing what it is. I can't believe that anyone in our industry can operate successfully in ignorance, but someone will try to prove me wrong. The charts we are using describe the most-commonly seen Toyota manual transmissions.

These are not all of the transmissions in the field, merely the most likely to be found in your shop. **TD**

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