

TRANSMISSION REMOVAL & INSTALLATION - M/T

1993 Toyota Celica

1993 MANUAL TRANSMISSION REMOVAL & INSTALLATION
Toyota

Celica

MANUAL REMOVAL & INSTALLATION

REMOVAL (FWD)

WARNING: To prevent air bag deployment, disconnect negative battery cable at least 90 seconds before working on vehicle.

1) Disconnect negative battery cable. Remove air cleaner assembly. Remove cruise control assembly. Remove starter, clutch release cylinder and bracket. Remove left engine stay, ground cable and back-up switch connector. Disconnect control cables and speedometer cable.

2) Remove left side engine and transaxle mounting bolts. Remove front wheels. Raise and support vehicle. Remove splash shields. Drain transaxle fluid. Remove drive shaft. See AXLE SHAFTS - FRONT article in DRIVE AXLES. Remove lower crossmember. Remove front exhaust pipe. Remove engine mounting bolts and engine-to-center crossmember bolts.

3) Raise engine and transaxle slightly with a jack, and remove center crossmember. Remove stiffener plate. Remove transaxle mounting bolts, lower engine and remove transaxle.

4) Mark pressure plate and flywheel for reassembly reference. Loosen pressure plate attaching bolts alternately until pressure plate is released. Remove clutch disc and pressure plate. DO NOT drop clutch disc.

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REMOVAL (ALL-TRAC)

1) Engine and transaxle must be removed as an assembly to replace clutch assembly. With ignition off, disconnect negative battery cable. Place suitable container under fuel line. Cover fuel line connection with shop towel. Slowly loosen fuel line connection to release fuel pressure.

2) Drain cooling system, engine oil and transaxle oil. Remove hood and engine undercover. Remove air intake duct, airflow meter and air cleaner cap as an assembly. Remove air cleaner case. Disconnect cables from throttle body.

3) Disconnect relay box from battery. Remove lower cover from relay box. Disconnect fusible link assembly and engine wire connectors from relay box. Remove A/C relay box from bracket, located near right corner of radiator.

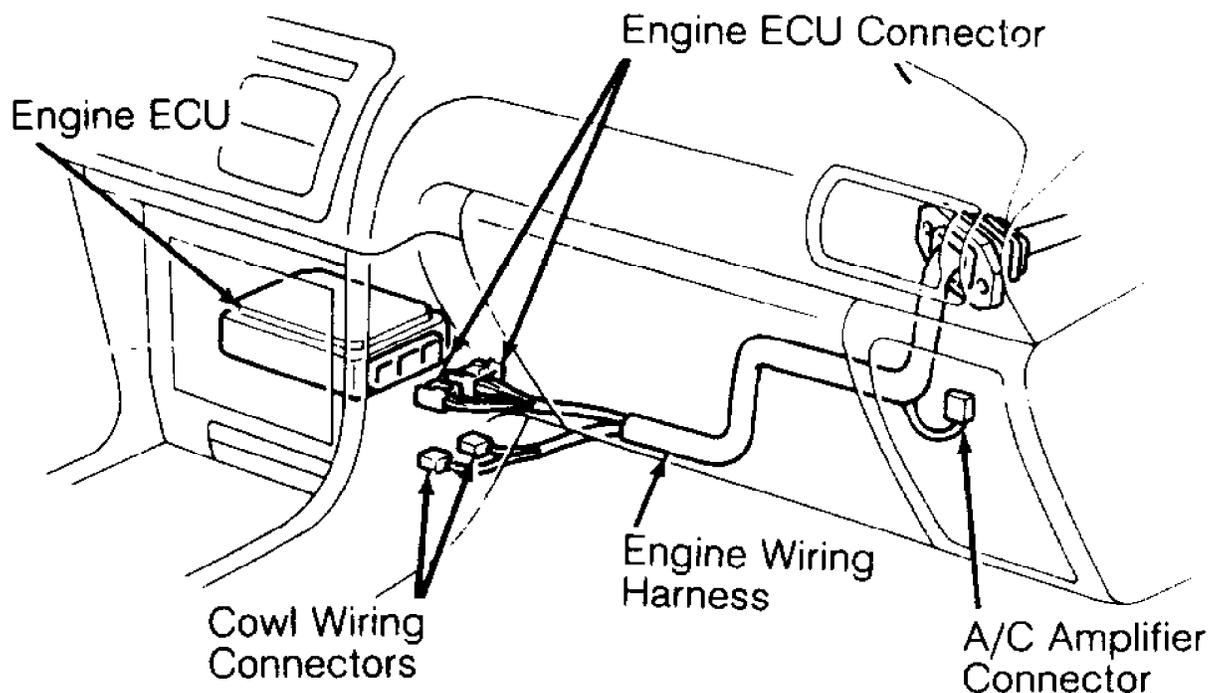
4) Remove battery. Remove injector solenoid resistor and fuel pump resistor located in front of battery, left of radiator. Remove radiator cooling fans, radiator and radiator reservoir tank. Remove cruise control actuator and ignition coil. Remove strut tower-to-firewall braces.

5) Label charcoal canister vacuum hoses, and remove canister. Label all necessary vacuum hose locations for reassembly reference. Disconnect necessary control cables, coolant hoses, fuel lines, vacuum hoses and electrical connections.

6) Raise and support vehicle. Disconnect speedometer cable,

oil cooler hoses and control cables at transaxle. Remove clutch release cylinder with hose attached, and secure aside. Disconnect wiring, and remove turbo pressure sensor and A/C vacuum switching valve from firewall. Remove starter.

7) Disconnect electrical connectors from engine Electronic Control Unit (ECU) located left of glove box, behind center console. Disconnect remaining electrical connections so engine wiring can be pulled out through access hole in passenger's side of firewall. See Fig. 1. Remove retaining nuts, and pull engine wiring through firewall.



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Fig. 1: Identifying Engine Wiring Connectors (Celica All-Trac)
Courtesy of Toyota Motor Sales, U.S.A., Inc.

8) Remove suspension crossmember bolted to both lower suspension arm shafts. Disconnect exhaust pipe at catalytic converter (located at bottom of turbo) and center pipe. Remove exhaust pipe. Remove front tires and wheels. Remove axle shafts. Remove front drive shaft.

9) Place reference marks on front and rear drive shaft flanges at center bearing. Remove flange bolts. Remove drive shaft from transfer case. Remove seal deflector from rear of transfer case. Remove dynamic damper from transfer case.

10) Remove alternator and idler pulley bracket. Remove A/C compressor and power steering pump with hoses attached, and secure aside. Remove engine mount crossmember located below engine. Remove catalytic converter from turbo.

11) Disconnect engine and transaxle mounts. Note direction of mount installation for reassembly reference. Mounts must be installed in original direction. Lift engine and transaxle from vehicle.

12) Remove bolts attaching engine to transaxle and remove

transaxle. Mark pressure plate and flywheel for reassembly reference. Loosen pressure plate attaching bolts alternately until pressure plate is released. Remove clutch disc and pressure plate. DO NOT drop clutch disc.

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Installation

1) Align reference marks, and install clutch disc and pressure plate. Use clutch aligner to center clutch disc on flywheel. Tighten pressure plate bolts alternately and evenly in a crisscross pattern to specification. See TORQUE SPECIFICATIONS.

2) Apply molybdenum disulfide grease to release fork contact surfaces, release bearing and hub, and clutch disc splines. Reverse removal procedure to complete installation.

TORQUE SPECIFICATIONS

CELICA

TORQUE SPECIFICATIONS (CELICA)

Application	Ft. Lbs. (N.m)
Flywheel Bolts	
4A-FE	58 (79)
5S-FE	65 (88)
3S-GTE	80 (108)
Pressure Plate Bolts	14 (19)
Transaxle-To-Engine Bolts	
10-mm Bolts	34 (46)
12-mm Bolts	47 (64)
Wheel Lug Nuts	76 (103)

CELICA ALL-TRAC

TORQUE SPECIFICATIONS (CELICA ALL-TRAC)

Application	Ft. Lbs. (N.m)
Dynamic Damper Bolt	19 (26)
Engine Mount	
Crossmember-To-Underbody Bolt	38 (52)
Bracket-To-Engine Bolts (Right Front)	38 (52)
Insulator Through Bolt	64 (87)
Insulator-To-Bracket Nuts (Right Front)	38 (52)
Mount-To-Crossmember Bolt	54 (73)
Flywheel Bolt	65 (88)
Power Steering Pump Bolt	32 (43)
Pressure Plate Bolts	14 (19)
Stiffener Support Brace Bolt (Engine Block-To-Flywheel Housing)	27 (37)
Strut Tower-To-Firewall Brace	
Bolt	15 (20)
Nut	47 (64)
Suspension Crossmember Bolt	112 (152)
Transaxle-To-Engine Bolts	
10-mm Bolts	34 (46)
12-mm Bolts	47 (64)
Wheel Lug Nuts	76 (103)
