

APPENDIX 3

MANUFACTORY REPAIR FLATE RATE FOR TOYOTA LC200 MODEL

OPERATION	DESCRIPTION	TIME
Engine assembly		
Engine only - PAS+AC	Remove and Install	11.8
Full exchange engine - PAS+AC	Remove and Install	15
Complete engine - PAS+AC	Strip and Rebuild	49.8
Cylinder block - PAS+AC	Strip and Rebuild	29.7
Mounting - left (of engine bay)	Remove and Install	11.4
Mounting - right (of engine bay)	Remove and Install	11.4
Lubrication		
Engine oil	Renew	0.5
Oil filter	Remove and Install	0.7
Oil sump pan - upper - PAS+AC	Remove and Install	14.1
Oil sump pan - lower	Remove and Install	1.6
Oil pump - PAS+AC	Remove and Install	15.1
Oil cooler	Remove and Install	1
Auxiliary drive		
Alternator drive/serpentine belt	Remove and Install	0.9
Fan/serpentine belt	Remove and Install	0.9
Ignition system		
Ignition/fuel ECU combined	Remove and Install	0.4
Spark plugs	Remove and Install	0.9
Ignition coil	Remove and Install	0.5
Engine (distributor) speed sensor	Remove and Install	2.5
Knock sensor	Remove and Install	2.7
Air filter, manifolds & plenum chamber		
Air filter assembly	Remove and Install	0.3
Air filter element	Remove and Install	0.2
Intake manifold	Remove and Install	4
Intake manifold gasket	Remove and Install	4.2
Throttle controls		
Throttle pedal	Remove and Install	0.3
Diesel injection system		
Control ECU	Remove and Install	0.4
Air flow/Mass sensor unit	Remove and Install	0.5
Coolant temperature sensor	Remove and Install	1
Camshaft position (CMP) sensor	Remove and Install	0.3
Fuel filter	Remove and Install	0.6
Injection pump	Remove and Install	4.9
Injection pump - PAS	Remove and Install	5.4
Injectors (all)	Remove and Install	4.7
Injection pipe (one)	Remove and Install	2.8
Pre-heat plugs (all)	Remove and Install	1.5
Pre-heating system relay (one)	Remove and Install	0.1
Throttle body	Remove and Install	1.3
Fuel supply diesel		
Fuel pump - in tank	Remove and Install	2.2

Fuel tank	Remove and Install	1.9
Fuel filter (in-line)	Remove and Install	0.6
Turbocharger		
Turbocharger	Remove and Install	11
Turbocharger - AC	Remove and Install	12.1
Turbocharger boost pressure sensor	Remove and Install	0.9
Petrol injection system		
Injection/ignition ECU combined	Remove and Install	0.4
Injectors (all)	Remove and Install	2.4
Air flow/mass sensor unit	Remove and Install	0.5
Coolant temperature sensor	Remove and Install	1.1
Throttle body	Remove and Install	1.2
Fuel pressure regulator	Remove and Install	0.6
Fuel supply petrol		
Fuel pump - in tank	Remove and Install	2
Fuel tank	Remove and Install	1.8
Fuel filter (in-line)	Remove and Install	0.5
Carbon filter	Remove and Install	0.3
Radiator, fan & intercooler		
Coolant/antifreeze	Drain and Refill	0.6
Cooling fan coupling	Remove and Install	1.7
Cooling fan	Remove and Install	1.7
Radiator - PAS	Remove and Install	2.3
Thermostat	Remove and Install	2.7
Pump & drive		
Water pump	Remove and Install	2.8
Water pump - PAS	Remove and Install	3.9
Header tank & hoses		
Header/expansion tank	Remove and Install	0.3
Radiator top hose	Remove and Install	0.8
Radiator bottom hose	Remove and Install	0.9
Header/expansion tank hose	Remove and Install	0.2
By-pass hose	Remove and Install	3.7
Manifold, pipes & silencers		
Exhaust manifold - left - AC	Remove and Install	12.3
Exhaust manifold - right - AC	Remove and Install	12
Exhaust manifold gasket - left - AC	Remove and Install	12.3
Exhaust manifold gasket - right - AC	Remove and Install	12
Manifold to downpipe gasket	Remove and Install	0.9
Pipe - front/downpipe	Remove and Install	0.8
Pipe - middle/silencer	Remove and Install	0.6
Pipe - rear/tail/silencer	Remove and Install	0.4
Catalytic converter - diesel		
Catalytic converter	Remove and Install	0.8
Catalytic converter (both)	Remove and Install	1
Exhaust gas recirculation valve	Remove and Install	4.1
Catalytic converter - petrol		
Lambda sensor - left/left front	Remove and Install	1.3
Lambda sensor - left rear	Remove and Install	1.3
Lambda sensor - right/right front	Remove and Install	1.3

Lambda sensor - right rear	Remove and Install	1.3
Lambda sensor (both)	Remove and Install	1.6
Torque converter & driveplate		
Converter	Remove and Install	8
Converter centre seal	Remove and Install	8.5
Driveplate	Remove and Install	8
Automatic transmission, housing & fluid system		
Transmission unit	Remove and Install	8.2
Automatic transmission fluid	Drain and Refill	0.9
Oil pan & gasket	Remove and Install	2.1
Control, governor & valves		
Solenoid valves	Remove and Install	2.2
Manual selector lever	Remove and Install	1.4
Valve block	Remove and Install	1.6
Propshaft, centre differential & transfer box		
Propshaft - front/single	Remove and Install	1.1
Propshaft - rear	Remove and Install	0.8
Propshaft CV joint	Remove and Install	1.5
Transfer box - AT	Remove and Install	8.1
Transfer box output oil seal	Remove and Install	1
Transfer box output oil seal - front	Remove and Install	1.3
Front axle		
Final drive	Remove and Install	3.4
Final drive	Drain and Refill	0.4
Final drive pinion oil seal	Remove and Install	1.5
Driveshaft - left	Remove and Install	2
Driveshaft - right	Remove and Install	2
Driveshaft (both)	Remove and Install	2.7
Driveshaft joint gaiter - both left	Remove and Install	2.3
Driveshaft joint gaiter - both right	Remove and Install	2.3
Driveshaft joint gaiter (all)	Remove and Install	3.3
Wheel bearing set	Remove and Install	1.7
Wheel bearing set (both)	Remove and Install	2.6
Hub assembly	Remove and Install	1.5
Hub assembly (both)	Remove and Install	2.3
Rear axle		
Rear axle - complete	Remove and Install	4.9
Final drive	Remove and Install	3.2
Final drive	Drain and Refill	0.4
Final drive pinion oil seal	Remove and Install	1.3
Halfshaft	Remove and Install	1.4
Halfshaft (both)	Remove and Install	2.4
Wheel bearing set	Remove and Install	1
Wheel bearing set (both)	Remove and Install	1.6
Front suspension		
Road spring	Remove and Install	1.2
Road spring (both)	Remove and Install	1.6
Shock absorber	Remove and Install	1.1
Shock absorbers (pair)	Remove and Install	1.6
Suspension upper arm	Remove and Install	1.4

Suspension upper arm (both)	Remove and Install	2
Suspension lower arm	Remove and Install	1.6
Suspension lower arm (both)	Remove and Install	2.1
Anti-roll bar	Remove and Install	1.9
Anti-roll bar bush - outer (one)	Remove and Install	0.5
Anti-roll bar bushes (all)	Remove and Install	0.7
Swivel hub/stub axle assembly	Remove and Install	1.6
Rear suspension		
Road spring	Remove and Install	0.9
Road spring (both)	Remove and Install	1.1
Shock absorber	Remove and Install	0.7
Shock absorbers (pair)	Remove and Install	1.7
Suspension lower arm	Remove and Install	0.4
Suspension lower arm (both)	Remove and Install	0.5
Anti-roll bar	Remove and Install	1.3
Anti-roll bar bushes (all)	Remove and Install	0.4
Suspension control		
Suspension control module	Remove and Install	0.6
Steering geometry		
Geometry - complete vehicle	Check	1.2
Geometry - complete vehicle	Check and Adjust	1.5
Front wheel alignment (toe)	Check and Adjust	0.7
Camber - front	Check and Adjust	1.3
Steering mechanism		
Steering rack/box	Remove and Install	13.3
Rack gaiter	Remove and Install	1
Track rod	Remove and Install	13.5
Track rod end joint	Remove and Install	0.9
Track rod end joint (both)	Remove and Install	1.1
Steering column		
Steering wheel	Remove and Install	0.5
Steering column	Remove and Install	1.2
Steering column shroud	Remove and Install	0.5
Power assisted steering		
Pump	Remove and Install	1.4
High pressure hose	Remove and Install	1.5
Pump coupling - petrol	Remove and Install	1.7
Wheels		
Wheels - (all)	Remove and Install	0.8
Braking system hydraulics		
Hydraulic system	Bleed	1.1
Master cylinder	Remove and Install	2.2
Front brake caliper (one)	Remove and Install	1.1
Front brake caliper (both)	Remove and Install	1.3
Rear brake caliper (one)	Remove and Install	1
Rear brake caliper (both)	Remove and Install	1.1
Front brake hose (one)	Remove and Install	0.9
Rear brake hose (one)	Remove and Install	0.9
Footbrakes		
Front brake pads (all)	Remove and Install	0.7

Rear brake pads (all)	Remove and Install	0.6
Front brake disc (both)	Remove and Install	0.9
Rear brake disc (both)	Remove and Install	0.9
Rear backplate (one)	Remove and Install	1
Brake pedal & servo		
Pedal assembly	Remove and Install	0.8
Servo	Remove and Install	2.1
Vacuum pump - diesel	Remove and Install	1
ABS or ABS/ESP		
Wheel sensor - front (one)	Remove and Install	0.4
Wheel sensor - front (both)	Remove and Install	0.5
Wheel sensor - rear (one)	Remove and Install	0.4
Wheel sensor - rear (both)	Remove and Install	0.5
Parking brake		
Parking brake freeplay	Check and Adjust	0.5
Parking brake lever	Remove and Install	1.5
Parking brake cables - (both) equal length	Remove and Install	2.4
Parking brake pads/shoes (all)	Remove and Install	1.1
Battery & cables		
Battery	Check	0.3
Battery	Remove and Install	0.3
Charging system		
Alternator	Remove and Install	2.5
Starting system		
Starter motor - pre-engaged	Remove and Install	4.1
Starter motor solenoid	Remove and Install	4.2
Bulbs		
Headlamp bulb	Remove and Install	0.2
Rear combination bulb (any)	Remove and Install	0.3
Front lamps		
Headlamp alignment	Check and Adjust	0.3
Headlamp - one	Remove and Install	1.3
Fog lamp - one	Remove and Install	0.3
Side repeater lamp - one	Remove and Install	0.2
Rear lamps		
Rear combination lamp assembly	Remove and Install	0.4
Number plate lamp - one	Remove and Install	0.2
High mounted brake lamp	Remove and Install	0.2
Interior lamps		
Interior lamp - front	Remove and Install	0.2
Interior lamp - rear	Remove and Install	0.2
Switches		
Ignition switch	Remove and Replace	0.4
Main lighting switch	Remove and Install	0.5
Dip/main/flash switch	Remove and Install	0.5
Horn switch	Remove and Install	0.3
Wash/wipe switch	Remove and Install	0.5
Hazard warning lights switch	Remove and Install	0.5
Inhibitor switch	Remove and Install	0.5
Reversing lights switch	Remove and Install	7.3

Stop lamps switch	Remove and Install	0.2
Parking brake warning lamp switch	Remove and Install	0.4
Front door lamp switch	Remove and Install	0.2
Rear door lamp switch	Remove and Install	0.2
Instruments		
Instrument panel	Remove and Install	0.6
Instrument panel LCD unit	Remove and Install	0.5
Clock	Remove and Install	0.5
Cigarette lighter	Remove and Install	0.2
Transducers, sensors & transmitters		
Horn	Remove and Install	0.3
Oil pressure transmitter	Remove and Install	0.7
Speedo drive sensor	Remove and Install	0.4
Coolant temperature sensor	Remove and Install	1
Fuel level sensor	Remove and Install	2
Fusebox & Relays		
Headlamps relay	Remove and Install	0.1
Heated rear window relay	Remove and Install	0.1
Motors		
Front wiper motor	Remove and Install	0.5
Rear wiper motor	Remove and Install	0.3
Front washer motor	Remove and Install	0.7
Rear washer motor	Remove and Install	0.7
Headlamp washer motor	Remove and Install	0.7
Front window lift motor	Remove and Install	0.7
Rear door window lift motor	Remove and Install	0.6
Control & audio units		
Radio/cassette unit	Remove and Install	0.5
CD player	Remove and Install	0.5
Roof aerial/antenna	Remove and Install	2.1
Roof aerial/antenna - cable	Remove and Install	4
Windscreen wipers/washers		
Wiper arm - (both)	Remove and Install	0.3
Wiper linkage	Remove and Install	0.5
Washer jet - (both)	Remove and Install	0.4
Washer reservoir	Remove and Install	0.7
Headlamp wipers/washers		
Washer jet - one	Remove and Install	1.1
Rear screen wipers/washers		
Wiper arm	Remove and Install	0.2
Washer jet	Remove and Install	0.3
Heating & ventilation system		
Heater unit - complete	Remove and Install	5
Heater hose - from engine	Remove and Install	1.6
Heater hose - to engine	Remove and Install	1.6
Heater matrix	Remove and Install	3.4
Heater matrix - AC	Remove and Install	4.4
Heater blower motor	Remove and Install	3.4
Air conditioning		
System evacuation/recharging	Check and Adjust	0.7

Receiver/drier	Remove and Install	2.2
Compressor	Remove and Install	3.7
Expansion valve - front	Remove and Install	3.9
Expansion valve - rear	Remove and Install	1.6
Condenser	Remove and Install	2.1
Evaporator - front	Remove and Install	4.4
Switch - high/triple pressure	Remove and Install	1.6
Blower control module/resistor - rear	Remove and Install	1.6
Blower relay	Remove and Install	0.1
Interior/Seats/Seatbelts		
Airbag - driver	Remove and Replace	0.3
Airbag - passenger	Remove and Replace	2.4
Airbag curtain - one	Remove and Replace	2.1
Airbag curtain - (both)	Remove and Replace	2.3
Airbag control module	Remove and Install	4.2
Airbag spiral cable/slip ring (clock spring)	Remove and Replace	0.6
Front seat belt	Remove and Install	0.4