

ANNEX 1

**MANUFACTORY REPAIR FLATE RATE FOR
NISSAN PATFINDER R51 MODEL**

OPERATION	DESCRIPTION	TIME
Engine assembly		
Engine only	Remove and Install	7.4
Full exchange engine	Remove and Install	9.8
Lubrication		
Oil filter	Remove and Install	0.4
Oil pick-up strainer	Remove and Install	5.5
Oil pump	Remove and Install	6.8
Oil cooler	Remove and Install	0.8
Crankcase ventilation valve	Remove and Install	0.2
Turbocharger oil feed pipe	Remove and Install	0.5
Turbocharger oil return pipe	Remove and Install	0.5
Air filter. manifolds & plenum chamber		
Air filter assembly	Remove and Install	0.5
Air filter element	Remove and Install	0.2
Intake manifold	Remove and Install	2.6
Intake manifold gasket	Remove and Install	2.6
Throttle controls		
Throttle return spring	Remove and Install	0.5
Throttle pedal	Remove and Install	0.5
Diesel injection system		
Control ECU	Remove and Install	1.3
Air flow/Mass sensor unit	Remove and Install	0.3
Engine speed sensor	Remove and Install	0.4
Injection pump	Remove and Install	3.2
Injectors (all)	Remove and Install	1
Injection pipes (all)	Remove and Install	0.7
Fuel rail	Remove and Install	2.5
Pre-heat plugs (all)	Remove and Install	0.3
Throttle body	Remove and Install	0.4
Fuel supply		
Fuel tank	Remove and Install	1.2
Fuel filter/sedimenter	Remove and Install	1.1
Turbocharger	Remove and Install	1.9
Radiator. fan & intercooler		
Cooling fan coupling	Remove and Install	0.3
Cooling fan	Remove and Install	0.4
Cooling fan motor	Remove and Install	0.4
Radiator	Remove and Install	1.4
Radiator cowling	Remove and Install	0.9
Thermostat	Remove and Install	0.6
Intercooler	Remove and Install	0.4
Pump & drive		
Water pump	Remove and Install	1.3
Water pump pulley	Remove and Install	0.3
Header tank & hoses		

Header/expansion tank	Remove and Install	0.3
Radiator top hose	Remove and Install	0.4
Radiator bottom hose	Remove and Install	0.7
Header/expansion tank hose	Remove and Install	0.3
Auxiliary drive		
AC compressor drive belt	Remove and Install	0.3
Alternator drive/serpentine belt	Remove and Install	0.3
Alternator drive/serpentine belt tensioner	Remove and Install	0.3
Fan/serpentine belt	Remove and Install	0.2
PAS drive/serpentine belt	Remove and Install	0.3
PAS drive/serpentine belt tensioner	Remove and Install	0.3
PAS drive/serpentine belt idler/guide pulley	Remove and Install	0.3
Clutch pedal. linkage & hydraulics		
Pedal assembly	Remove and Install	0.7
Pedal return spring	Remove and Install	0.7
Master cylinder	Remove and Install	1.6
Slave cylinder	Remove and Install	1.1
Clutch unit & flywheel		
Clutch plate. cover & release bearing	Remove and Install	3
Gearbox unit & casing		
Gearbox	Remove and Install	3.5
Gearbox	Strip and Rebuild	9.4
Gear control. linkage & selectors		
Lever	Remove and Install	0.4
Propshaft. centre differential & transfer box		
Propshaft - front/single	Remove and Install	0.3
Propshaft - rear	Remove and Install	0.3
Propshaft coupling/flange	Remove and Install	0.6
Transfer box	Remove and Install	2.2
Front axle		
Final drive	Remove and Install	1.3
Driveshaft - left	Remove and Install	0.8
Driveshaft - right	Remove and Install	0.8
Driveshaft (both)	Remove and Install	1.4
Driveshaft joint - outer left	Remove and Install	1.2
Driveshaft joint - outer right	Remove and Install	1.2
Wheel bearing set	Remove and Install	0.6
Wheel bearing set (both)	Remove and Install	1
Hub assembly	Remove and Install	0.6
Hub assembly (both)	Remove and Install	1
Rear axle		
Final drive	Remove and Install	1.2
Final drive	Drain and Refill	0.3
Driveshaft - left	Remove and Install	0.5
Driveshaft - right	Remove and Install	0.5
Driveshaft (both)	Remove and Install	0.8
Driveshaft seal - inner left	Remove and Install	0.6
Driveshaft seal - inner right	Remove and Install	0.6
Driveshaft seal - inner (both)	Remove and Install	1
Halfshaft	Remove and Install	0.6

Halfshaft (both)	Remove and Install	0.9
Stub axle	Remove and Install	3.2
Stub axle (both)	Remove and Install	4.3
Hub assembly	Remove and Install	0.7
Hub assembly (both)	Remove and Install	1.2
Braking system hydraulics		
Hydraulic system	Bleed	0.6
Master cylinder	Remove and Install	1
Front brake caliper (one)	Remove and Install	0.5
Front brake caliper (both)	Remove and Install	0.7
Rear brake caliper (one)	Remove and Install	0.5
Rear brake caliper (both)	Remove and Install	0.7
Front brake hose (one)	Remove and Install	0.5
Front brake hose (both)	Remove and Install	0.7
Rear brake hose (one)	Remove and Install	0.5
Rear brake hose (both)	Remove and Install	0.7
Footbrakes		
Front brake pads (all)	Remove and Install	0.6
Rear brake pads (all)	Remove and Install	0.6
Front brake disc (both)	Remove and Install	0.7
Rear brake disc (both)	Remove and Install	0.9
Brake pedal & servo		
Servo	Remove and Install	1.6
Servo non-return valve	Remove and Install	0.2
Vacuum pump - diesel	Remove and Install	2.6
ABS or ABS/ESP		
ECU	Remove and Install	1.4
Wheel sensor - front (one)	Remove and Install	0.5
Wheel sensor - rear (one)	Remove and Install	0.6
Actuator	Remove and Install	1.4
Parking brake		
Parking brake freeplay	Check and Adjust	0.2
Parking brake lever	Remove and Install	0.5
Parking brake cable - primary/single	Remove and Install	2.7
Parking brake cable - secondary	Remove and Install	1.1
Parking brake cables - (both) equal length	Remove and Install	1.7
Parking brake pads/shoes (all)	Remove and Install	1.1
Parking brake actuator	Remove and Install	0.5
Front suspension		
Subframe/crossmember	Remove and Install	0.3
Road spring	Remove and Install	0.8
Shock absorbers (pair)	Remove and Install	1.1
Suspension upper arm	Remove and Install	0.6
Suspension lower arm	Remove and Install	2.3
Ball joint - upper	Remove and Install	0.6
Ball joint - lower	Remove and Install	2.8
Anti-roll bar	Remove and Install	0.6
Anti-roll bar bushes (all)	Remove and Install	0.5
Anti-roll bar link - outer	Remove and Install	0.2
Anti-roll bar link - outer (both)	Remove and Install	0.3

Swivel hub/stub axle assembly	Remove and Install	2.6
Swivel hub/stub axle assembly (both)	Remove and Install	3.3
Rear suspension		
Road spring	Remove and Install	0.4
Road spring (both)	Remove and Install	0.6
Shock absorber	Remove and Install	0.4
Shock absorbers (pair)	Remove and Install	0.7
Suspension upper arm	Remove and Install	0.7
Suspension upper arm (both)	Remove and Install	1.2
Suspension lower arm	Remove and Install	2.5
Suspension lower arm (both)	Remove and Install	2.8
Suspension arm tie bar - lower	Remove and Install	2.3
Suspension arm tie bar - lower (both)	Remove and Install	2.5
Anti-roll bar	Remove and Install	0.4
Anti-roll bar bushes (all)	Remove and Install	0.3
Anti-roll bar link - outer	Remove and Install	0.3
Anti-roll bar link - outer (both)	Remove and Install	0.3
Manifold. pipes & silencers		
Exhaust manifold	Remove and Install	2.2
Exhaust manifold gasket	Remove and Install	2.2
Pipe - front/downpipe	Remove and Install	0.3
Pipe - rear/tail/silencer	Remove and Install	0.7
Catalytic converter		
Lambda sensor - front	Remove and Install	0.3
Lambda sensor - rear	Remove and Install	0.3
Exhaust gas recirculation valve	Remove and Install	0.5
Battery & cables		
Battery	Check	0.5
Battery	Remove and Install	0.5
Cable to starter/solenoid	Remove and Install	0.5
Cable to body earth	Remove and Install	0.5
Cable to engine earth	Remove and Install	0.5
Charging system		
Alternator	Remove and Install	0.6
Starting system		
Starter motor - pre-engaged	Remove and Install	0.7
Starter motor solenoid	Remove and Install	0.8
Bulbs		
Bulb - unspecified (one)	Remove and Install	0.2
Interior lamps		
Interior lamp - front	Remove and Install	0.2
Interior lamp - rear	Remove and Install	0.2
Map reading lamp	Remove and Install	0.2
Switches		
Starter/ignition switch	Remove and Install	1.8
Dip/main/flash switch	Remove and Install	0.9
Wash/wipe switch	Remove and Install	0.3
Hazard warning lights switch	Remove and Install	0.3
Stop lamps switch	Remove and Install	0.2
Transducers. sensors & transmitters		

Horn	Remove and Install	0.2
Oil pressure transmitter	Remove and Install	0.3
Speedo drive sensor	Remove and Install	3
Coolant temperature sensor	Remove and Install	0.4
Fuel level sensor	Remove and Install	1.1
Fusebox & Relays		
Headlamps relay	Remove and Install	0.5
Indicator relay/flasher unit	Remove and Install	0.9
Intermittent wiper relay	Remove and Install	0.5
Coolant blower motor relay	Remove and Install	0.4
Horn relay	Remove and Install	0.2
Fuel pump relay	Remove and Install	0.5
Motors		
Front wiper motor	Remove and Install	0.4
Rear wiper motor	Remove and Install	0.3
Front washer motor	Remove and Install	0.6
Rear washer motor	Remove and Install	0.6
Headlamp washer motor	Remove and Install	0.7
Front window lift motor	Remove and Install	0.5
Rear door window lift motor	Remove and Install	0.5
Front central locking solenoid/actuator	Remove and Install	0.9
Rear central locking solenoid/actuator	Remove and Install	0.9
Fuel filler flap release solenoid	Remove and Install	0.4
Gas discharge h/lamp levelling motor - one	Remove and Install	1.1
Control & audio units		
CD player	Remove and Install	0.7
Windscreen wipers/washers		
Wiper arm	Remove and Install	0.2
Wiper linkage	Remove and Install	0.4
Washer jet - one	Remove and Install	0.3
Washer hose	Remove and Replace	0.6
Headlamp wipers/washers		
Washer jet - one	Remove and Install	0.5
Washer reservoir	Remove and Install	0.7
Rear screen wipers/washers		
Wiper arm	Remove and Install	0.2
Washer jet	Remove and Install	0.2
Heating & ventilation system		
Heater unit - complete	Remove and Install	4.5
Heater hose - from engine	Remove and Install	0.6
Heater hose - to engine	Remove and Install	0.6
Heater matrix	Remove and Install	4.6
Heater blower motor	Remove and Install	0.3
Heater blower control module/resistor - front	Remove and Install	0.2
Cabin filter	Remove and Install	0.3
Air conditioning		
System evacuation/recharging	Check and Adjust	0.6
Receiver/drier	Remove and Install	2.2
Accumulator/drier	Remove and Install	2.2
Compressor	Remove and Install	1.1

Compressor clutch	Remove and Install	1.2
Expansion valve - front	Remove and Install	4.3
Condenser	Remove and Install	1.6
Condenser blower motor relay	Remove and Install	0.4
Evaporator - front	Remove and Install	4.3
Evaporator - rear	Remove and Install	0.9
Air conditioning control panel	Remove and Install	0.3
Air conditioning control module	Remove and Install	0.3
Switch - low/cycling pressure	Remove and Install	0.2
Ambient temperature sensor	Remove and Install	0.2
Temperature sensor - front	Remove and Install	0.6
Temperature sensor - rear	Remove and Install	0.6
Delivery temp sensor	Remove and Install	0.6
Blower control module/resistor - front	Remove and Install	0.2