

DESCRIPTION AND OPERATION

Maintenance Schedules — Gasoline Engines

The maintenance schedule is designed to protect against major repairs resulting from neglect or inadequate maintenance and to prolong the life of the vehicle.

General Maintenance Information

NOTE: This is a generic maintenance schedule for all Ford, Lincoln and Mercury vehicles. There may be items listed that do not apply to all vehicles.

The Normal Schedule applies to operation of the vehicle under typical, everyday driving conditions. The maintenance frequency in this schedule typifies what the vast majority of vehicles will require. The listed services should be carried out at specified mileage intervals. There are, however, additional services required that only the noted vehicles require.

If the vehicle is operated in one or more of the following special operating conditions, those additional services will be required. The special operating conditions are:

- towing or carrying heavy loads.
- extensive idling and/or driving at low speeds for long distances.
- driving in dusty conditions.
- off-road operation.
- use of E85 fuel 50% of the time or greater (flex fuel vehicles only).

There are also exceptions to the Normal Operating Schedule which will require more frequent maintenance for some components. Those exceptions are:

- natural gas and propane vehicles — fuel tank intervals.
- standard vehicle axle — maintenance and lubrication.
- police and taxi vehicles — maintenance and lubrication.
- engine oil and Premium Gold coolant — time and mileage-based interval.

Special Operating Condition Requirements

When towing a trailer or using a camper or car-top carrier:

- Change engine oil and install a new oil filter every 4,800 km (3,000 miles) or 3 months.
- Change transfer case fluid every 96,000 km (60,000 miles).
- Change automatic transmission fluid, lubricate 4x2 wheel bearings, install new grease seals and adjust bearings every 48,000 km (30,000 miles). If equipped, change the in-line service installed transmission fluid filter.
- Change manual transmission fluid as required.
- Inspect and lubricate U-joints and halfshafts as required.

During extensive idling and/or low speed driving for long distances, as in heavy commercial use such as delivery, taxi, patrol car or livery:

- Change engine oil and install a new oil filter every 4,800 km (3,000 miles) or 3 months.
- Lube front lower control arm and steering linkage ball joints with zerk fittings (if equipped) every 4,800 km (3,000 miles) or 3 months.
- Inspect brake system and check battery (Patrol cars) every 8,000 km (5,000 miles).
- Install a new fuel filter every 24,000 km (15,000 miles).
- Change automatic transmission fluid, lubricate 4x2 wheel bearings, install new grease seals and adjust bearings every 48,000 km (30,000 miles). If equipped, change the in-line service installed transmission fluid filter.
- Install new spark plugs and change transfer case fluid every 96,000 km (60,000 miles).
- Install a new cabin air filter as required.

When operating in dusty conditions such as unpaved or dusty roads:

- Change engine oil and install a new oil filter every 4,800 km (3,000 miles) or 3 months.
- Install a new fuel filter every 24,000 km (15,000 miles).

DESCRIPTION AND OPERATION (Continued)

- Change automatic transmission fluid, check air filter minder and install a new filter as required (Focus engine only) every 48,000 km (30,000 miles). If equipped, change the in-line service installed transmission fluid filter.
- Change transfer case fluid every 96,000 km (60,000 miles).
- Install a new engine air filter as required.
- Install a new cabin air filter as required.

When operating in off-road conditions:

- Change automatic transmission fluid every 48,000 km (30,000 miles). If equipped, change the in-line service installed transmission fluid filter.
- Change transfer case fluid every 96,000 km (60,000 miles).
- Install a new cabin air filter as required.
- Inspect and lubricate U-joints and halfshafts.
- Inspect and lubricate steering linkage ball joints with zerk fittings.

Use of E85 fuel 50% of the time or greater (flex fuel vehicles only):

- Change engine oil and install a new oil filter every 4,800 km (3,000 miles), 3 months or 200 hours of engine operation (whichever occurs first).

Checks and Services

Certain basic maintenance checks and inspections should be carried out at specified intervals. Any recognized adverse condition should be corrected as soon as possible.

Multi-Point Inspection

The following inspections are recommended at every service interval:

- Check and top off brake, coolant, manual and automatic transmission (if equipped with a fluid level indicator), power steering and window washer fluids.
- Inspect tires for wear and correct air pressure, including spare tire.
- Check exhaust system for leaks, damage, loose parts and foreign material.
- Check battery performance.
- Check operation of horn, exterior lamps, turn signals and hazard warning lights.

- Check radiator, coolers, heater and air conditioning hoses.
- Inspect windshield wiper spray and wiper operation.
- Check windshield for cracks, chips and pitting.
- Inspect for oil and fluid leaks.
- Inspect air cleaner filter.
- Inspect halfshaft dust boots.
- Check shocks, struts and other suspension components for leaks and damage.

In-Line, Service-Installed Transmission Fluid Filter

Some vehicles may be equipped with an in-line, service-installed transmission fluid filter. This filter is installed in the transmission fluid cooler return line. If equipped, install a new in-line filter during transmission fluid change intervals.

Maximum Oil Change Interval (Normal Schedule)

- 8,000 km (5,000 miles) or 6 months (whichever occurs first).

Maximum Oil Change Interval (Special Operating Conditions)

- 4,800 km (3,000 miles), 3 months or 200 hours of engine operation (whichever occurs first).

Monthly Checks

Check each of the following items every month:

- All interior and exterior lights.
- Tires for wear and correct air pressure, including spare tire.
- Engine oil fluid level.
- Windshield washer solvent fluid level.

Six Month Checks

Check each of the following items at least every 6 months:

- Lap/shoulder belts and seat latches for wear and function.
- External mounted spare tire is stowed correctly (tight to body).
- Power steering fluid level.
- Parking brake for correct operation.

DESCRIPTION AND OPERATION (Continued)

- Safety warning lamps (brake, ABS, air bag, safety belt) for correct operation.
- Coolant system fluid level and correct strength.
- Battery connections. Clean if necessary.
- Clutch fluid level, if equipped.
- Windshield washer spray, wiper operation, clean all wiper blades.
- Lubricate all hinges, latches and outside locks. Inspect for correct operation.
- Lubricate door rubber weatherstrips. Inspect for excessive wear.
- Clean body and door drain holes. Inspect for clogs and obstructions.
- Lubricate upper and lower sliding door tracks, if equipped.
- Clean sliding door contact switches, if equipped.

Normal Schedule

NOTE: Rotate tires and inspect for wear at 5,000 miles, 15,000 miles and every 15,000 miles is required thereafter. At other 5,000-mile intervals, rotation is recommended for optimal life.

The following checks or procedures should be carried out for all cars, minivans, light trucks, sport utilities, vans, 4x4s, natural gas vehicles.

8,000 Km (5,000 Miles)

- Change engine oil and install a new oil filter.
- Rotate tires and inspect for wear.
- Multi-point inspection recommended.

16,000 Km (10,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect tires for wear. Rotation recommended for optimal tire life.
- Multi-point inspection recommended.

24,000 Km (15,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect brake pads, shoes, rotors, drums, brake lines, hoses and parking brake system.
- Inspect wheel ends for end play and noise.
- Inspect engine cooling system and hoses.
- Inspect steering linkage, suspension and ball joints (if equipped), halfshafts, driveshaft and U-joints.

- Rotate tires and inspect for wear.
- If equipped, install a new cabin air filter.
- Multi-point inspection recommended.

ADDITIONAL MAINTENANCE: For light trucks, sport utilities and vans:

- Inspect and lubricate the 4x2 ball joints.
- Inspect and lubricate the steering linkage if equipped with zerk fittings.

32,000 Km (20,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect tires for wear. Rotation recommended for optimal tire life.
- Multi-point inspection recommended.

40,000 Km (25,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect tires for wear. Rotation recommended for optimal tire life.
- Drain coalescent fuel filter bowl and install a new filter (NGV).
- Multi-point inspection recommended.

48,000 Km (30,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect brake pads, shoes, rotors, drums, brake lines, hoses and parking brake system.
- Inspect wheel ends for end play and noise.
- Inspect engine cooling system and hoses.
- Inspect exhaust system and heat shields.
- Inspect steering linkage, suspension and ball joints (if equipped), halfshafts, driveshaft and U-joints.
- Rotate tires and inspect for wear.
- Install a new engine air filter (not required for Focus).
- Install a new fuel filter.
- If equipped, install a new cabin air filter.
- Change automatic transmission/transaxle fluid on all vehicles equipped with 4F50N, 4R100, TorqShift and 4F27E. Inspect automatic transmission fluid level using dipstick on all other vehicles, if equipped. Change the in-line service installed transmission fluid filter, if equipped.

DESCRIPTION AND OPERATION (Continued)

- If equipped, install new climate controlled seat filters (Navigator, Lincoln LS, Freestar, Monterey, Expedition and Aviator).
- Multi-point inspection recommended.

ADDITIONAL MAINTENANCE: For light trucks, sport utilities and vans:

- Inspect and lubricate the 4x2 ball joints.
- Inspect and lubricate the steering linkage if equipped with zerk fittings.
- Natural gas vehicles require checking the fuel tanks and installing a new fuel filter.

56,000 Km (35,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect tires for wear. Rotation recommended for optimal tire life.
- Multi-point inspection recommended.

64,000 Km (40,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect tires for wear. Rotation recommended for optimal tire life.
- Multi-point inspection recommended.

72,000 Km (45,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect automatic transmission fluid level using dipstick, if equipped.
- Inspect brake pads, shoes, rotors, drums, brake lines, hoses and parking brake system.
- Inspect wheel ends for end play and noise.
- Inspect engine cooling system and hoses.
- Inspect steering linkage, suspension and ball joints (if equipped), halfshafts, driveshaft and U-joints.
- Rotate tires and inspect for wear.
- If equipped, install a new cabin air filter.
- Multi-point inspection recommended.

ADDITIONAL MAINTENANCE: For light trucks, sport utilities and vans:

- Inspect and lubricate the 4x2 ball joints.
- Inspect and lubricate the steering linkage if equipped with zerk fittings.

80,000 Km (50,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect tires for wear. Rotation recommended for optimal tire life.
- Drain coalescent fuel filter bowl and install a new filter (NGV).
- Clean injectors (natural gas vehicles).
- Multi-point inspection recommended.

88,000 Km (55,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect tires for wear. Rotation recommended for optimal tire life.
- Multi-point inspection recommended.

96,000 Km (60,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect brake pads, shoes, rotors, drums, brake lines, hoses and parking brake system.
- Inspect wheel ends for end play and noise.
- Inspect engine cooling system and hoses.
- Inspect steering linkage, suspension and ball joints (if equipped), halfshafts, driveshaft and U-joints.
- Rotate tires and inspect for wear.
- Install a new engine air filter (not required for Focus).
- Install a new fuel filter.
- If equipped, install a new cabin air filter.
- Change automatic transmission/transaxle fluid on all vehicles equipped with 4F50N, 4R100, TorqShift and 4F27E. Inspect automatic transmission fluid level using dipstick on all other vehicles, if equipped. If equipped, change the in-line service installed transmission fluid filter.
- Change automatic transmission fluid on all vehicles equipped with a CVT transmission and install a new high-pressure case filter.
- Change manual transmission fluid, if equipped.
- If equipped, install new climate controlled seat filters (Navigator, Lincoln LS, Freestar, Monterey, Expedition and Aviator).
- Multi-point inspection recommended.

DESCRIPTION AND OPERATION (Continued)

ADDITIONAL MAINTENANCE: For natural gas vehicles:

- Inspect fuel tanks.
- Drain coalescent fuel filter bowl.
- Install a new fuel filter.

104,000 Km (65,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect tires for wear. Rotation recommended for optimal tire life.
- Multi-point inspection recommended.

112,000 Km (70,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect tires for wear. Rotation recommended for optimal tire life.
- Multi-point inspection recommended.

120,000 Km (75,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect automatic transmission fluid level using dipstick.
- Inspect brake pads, shoes, rotors, drums, brake lines, hoses and parking brake system.
- Inspect wheel ends for end play and noise.
- Inspect engine cooling system and hoses.
- Inspect steering linkage, suspension and ball joints (if equipped), halfshafts, driveshaft and U-joints.
- Rotate tires and inspect for wear.
- Install a new cabin air filter.
- Drain coalescent fuel filter bowl and install a new filter (NGV).
- Multi-point inspection recommended.

ADDITIONAL MAINTENANCE: For light trucks, sport utilities and vans:

- Inspect and lubricate the 4x2 ball joints.
- Inspect and lubricate the steering linkage if equipped with zerk fittings.

128,000 Km (80,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect tires for wear. Rotation recommended for optimal tire life.
- Multi-point inspection recommended.

136,000 Km (85,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect tires for wear. Rotation recommended for optimal tire life.
- Multi-point inspection recommended.

144,000 Km (90,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect brake pads, shoes, rotors, drums, brake lines, hoses and parking brake system.
- Inspect wheel ends for end play and noise.
- Inspect engine cooling system and hoses.
- Inspect exhaust system and heat shields.
- Inspect steering linkage, suspension and ball joints (if equipped), halfshafts, driveshaft and U-joints.
- Rotate tires and inspect for wear.
- Install a new engine air filter.
- Install a new fuel filter.
- If equipped, install a new cabin air filter.
- Change automatic transmission/transaxle fluid on all vehicles equipped with 4F50N, 4R100, TorqShift and 4F27E. Inspect automatic transmission fluid level using dipstick on all other vehicles, if equipped. If equipped, change the in-line service installed transmission fluid filter.
- If equipped, install new climate controlled seat filters (Navigator, Lincoln LS, Freestar, Monterey, Expedition and Aviator).
- Multi-point inspection recommended.

ADDITIONAL MAINTENANCE: For light trucks, sport utilities and vans:

- Inspect and lubricate the 4x2 ball joints.
- Inspect and lubricate the steering linkage if equipped with zerk fittings.

ADDITIONAL MAINTENANCE: For natural gas vehicles:

- Inspect the fuel tanks.
- Drain the coalescent fuel filter bowl.
- Install a new fuel filter.

DESCRIPTION AND OPERATION (Continued)**152,000 Km (95,000 Miles)**

- Change engine oil and install a new oil filter.
- Inspect tires for wear. Rotation recommended for optimal tire life.
- Multi-point inspection recommended.

160,000 Km (100,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect accessory drive belt(s).
- Rotate tires and inspect for wear.
- Install new spark plugs.
- Change Premium Gold coolant or change at 5 years, whichever comes first.
- Change rear axle fluid (F450-550).
- Install a new external PCV on all cars and light trucks under 6,000 pounds Gross Vehicle Weight (GVW), except 4.6L 3V engine.
- Drain coalescent fuel filter bowl and install a new filter (NGV).
- Clean injectors (NGV).
- Multi-point inspection recommended.

168,000 Km (105,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect automatic transmission fluid level if equipped with dipstick.
- Inspect brake pads, shoes, rotors, drums, brake lines, hoses and parking brake system.
- Inspect wheel ends for end play and noise.
- Inspect engine coolant system and hoses.
- Lubricate 4x2 ball joints and steering linkage if equipped with zerk fittings.
- Inspect steering linkage, suspension and ball joints (if equipped), halfshafts, driveshaft and U-joints.
- Rotate tires and inspect for wear.
- If equipped, install a new cabin air filter.
- Multi-point inspection recommended.

176,000 Km (110,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect tires for wear. Rotation recommended for optimal tire life.
- Multi-point inspection recommended.

184,000 Km (115,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect tires for wear. Rotation recommended for optimal tire life.
- Multi-point inspection recommended.

192,000 Km (120,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect brake pads, shoes, rotors, drums, brake lines, hoses and parking brake system.
- Inspect wheel ends for end play and noise.
- Inspect engine cooling system and hoses.
- Inspect exhaust system and heat shields.
- Inspect steering linkage, suspension and ball joints (if equipped), halfshafts, driveshaft and U-joints.
- Rotate tires and inspect for wear.
- Install a new engine air filter (not required for Focus).
- Install a new fuel filter.
- If equipped, install a new cabin air filter.
- Install a new external PCV valve on all cars and light trucks over 6,000 lbs. Gross Vehicle Weight, except 5.4L 3V engine.
- Change automatic transmission/transaxle fluid on all vehicles equipped with 4F50N, 4R100, TorqShift and 4F27E. Inspect automatic transmission fluid level using dipstick on all other vehicles, if equipped. If equipped, change the in-line service installed transmission fluid filter.
- Change automatic transmission fluid on all vehicles equipped with a CVT transmission and install a new high-pressure case filter.
- Change manual transmission fluid (trucks only), if equipped.
- If equipped, install new climate controlled seat filters (Navigator, Lincoln LS, Freestar, Monterey, Expedition and Aviator).
- Multi-point inspection recommended.

ADDITIONAL MAINTENANCE: For natural gas vehicles:

- Inspect the fuel tanks.
- Drain the coalescent fuel filter bowl.

DESCRIPTION AND OPERATION (Continued)

- Install a new fuel filter.

- Install a new camshaft belt on the 4-cylinder engine (2.0L Escape).

200,000 Km (125,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect tires for wear. Rotation recommended for optimal tire life.
- Drain coalescent fuel filter bowl and install a new filter (NGV).
- Multi-point inspection recommended.

208,000 Km (130,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect tires for wear. Rotation recommended for optimal tire life.
- Multi-point inspection recommended.

216,000 Km (135,000 Miles)

- Change engine oil and install a new oil filter.
- If equipped, inspect automatic transmission fluid level with dipstick.
- Inspect brake pads, shoes, rotors, drums, brake lines, hoses and parking brake system.
- Inspect wheel ends for end play and noise.
- Inspect engine cooling system and hoses.
- Inspect steering linkage, suspension and ball joints (if equipped), halfshafts, driveshaft and U-joints.
- Rotate tires and inspect for wear.
- Install a new cabin air filter.
- Multi-point inspection recommended.

224,000 Km (140,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect tires for wear. Rotation recommended for optimal tire life.
- Multi-point inspection recommended.

232,000 Km (145,000 Miles)

- Change engine oil and install a new oil filter.
- Inspect tires for wear. Rotation recommended for optimal tire life.
- Multi-point inspection recommended.

240,000 Km (150,000 Miles)

- Install new 4x2 front wheel bearings and seals (if new bearings and seals have not been installed in the last 100,000 miles).
- Change engine oil and install a new oil filter.
- Inspect brake pads, shoes, rotors, drums, brake lines, hoses and parking brake system.
- Inspect wheel ends for end play and noise.
- Inspect engine cooling system and hoses.
- Inspect exhaust system and heat shields.
- Inspect steering linkage, suspension and ball joints (if equipped), halfshafts, driveshaft and U-joints.
- Rotate tires and inspect for wear.
- Install a new engine air filter (not required on Focus).
- Install a new fuel filter.
- Lubricate 4x2 ball joints and steering linkage if equipped with zerk fittings.
- If equipped, install a new cabin air filter.
- Change Premium Gold coolant (See Exceptions To Normal Schedule and Mileage Base).
- Change automatic transmission/transaxle fluid and filter (filter not required on CD4-E and AISIN 6SP [AWF21] transmissions).
- Change rear axle lubricant on all rear wheel (RWD) vehicles.
- Install a new accessory drive belt(s) (if a new belt has not been installed within the last 100,000 miles).
- If equipped, install new climate controlled seat filters (Navigator, Lincoln LS, Freestar, Monterey, Expedition and Aviator).
- Multi-point inspection recommended.

ADDITIONAL MAINTENANCE: For natural gas vehicles:

- Inspect the fuel tanks.
- Drain the coalescent fuel filter bowl.
- Install a new fuel filter.

DESCRIPTION AND OPERATION (Continued)**Exceptions To Normal Schedule****Premium Gold Coolant**

- Change Premium Gold coolant at 5 years or 160,000 km (100,000 miles) of the vehicle's life, whichever comes first.
- After the initial change, change coolant every 3 years or 80,000 km (50,000 miles) thereafter.

Natural Gas and Propane Vehicles

- Inspect NGV fuel tanks from the date of tank manufacture every 3 years.
- Inspect propane fuel tanks from vehicle build date every 5 years.
- Install new NGV fuel tanks from the date of tank manufacture every 15 years.

Normal Vehicle Axle Maintenance

Rear axles and power take off (PTO) units containing synthetic lubricant and light duty trucks equipped with Ford-design axles are lubricated for life. These lubricants are not to be checked or changed unless service is required, or if a leak is suspected, or the axle assembly has been submerged in water.

The axle and PTO fluid should be changed anytime they have been submerged in water. Non-synthetic rear axle lubricants should be replaced every 4,800 km (3,000 miles) or 3 months, whichever occurs first, during extended trailer tow operation above 21°C (70°F) ambient and wide open throttle for extended periods above 45 mph.

The 3,000 mile lube change interval may be waived if the axle was filled with 75W140 synthetic gear lubricant meeting Ford specification WSL-M2C192-A, part number F1TZ-19580-B or equivalent. Add 4 ounces of additive friction modifier C8AZ-19B546-A (EST-M2C118-A) or equivalent for complete refill of Traction-Lok® rear axles.

The axle lubricant should be changed anytime an axle has been submerged in water.

Police and Taxi Vehicle Axle Maintenance

Replace rear axle lubricant every 160,000 km (100,000 miles). Rear axle lubricant change may be waived if the axle was filled with 75W140 synthetic gear lubricant meeting Ford specification WSL-M2C192-A, part number FITZ-19580-B or equivalent. Add 4 ounces of additive friction modifier C8AZ-19B546-A (EST-M2C118-A) or equivalent for complete refill of Traction-Lok® rear axles.

The axle lubricant should be changed anytime an axle has been submerged in water.

E and F 450 and 550 Series Axle Maintenance

Replace rear axle lubricant every 100,000 miles under normal driving conditions on all E and F 450 and 550 series applications. For E and F 450 and 550 series vehicles operated at or near maximum Gross Vehicle Weights, the rear axle lubricant should be replaced every 50,000 miles.

In addition, the 50,000 mile schedule should be observed when the vehicles are operated under the Special Operating Conditions.