



## Starter Motor Fitting Instructions

### Description

The PowerLite high-torque starter motor is of the pre-engaged reduction gear type with the solenoid contained in the main body. The main body comprises a steel-gearbed gearbox and solenoid with the high-speed motor mounted above or below depending on the application (so it does not foul anything).

### Electrical Fittings

The large stud connection on the body is the main power feed and this is fitted with a link wire to the solenoid trigger spade terminal (or small stud) in the black shroud.

**Please note** that on some units the link wire may have been removed. RAC403 is internally wired with no spade terminal.

### Fitting a replacement for pre-engaged starter

Most pre-engaged starter motors have a main power feed connection and a solenoid trigger connection.

1. Remove all wiring from original unit
2. Before fitting, check the projection and diameter of the pinion against old unit
3. If necessary remove the link wire on the PowerLite unit that is fitted between the stud and spade (or small stud) terminals
4. Fit the PowerLite unit to the car
5. Fit the main power feed to the stud terminal. **Do not over tighten.**
6. Fit the solenoid trigger wire to the spade (or small stud) terminal taking care that it is pushed fully into position and there is no pressure on the terminal

### Fitting a replacement for inertia starter

Most cars originally fitted with inertia starters have a separate bulkhead mounted solenoid and a single heavy

power cable connecting this to the starter.

1. Disconnect the power cable and remove the old unit
2. Before fitting, check the projection and diameter of the pinion against old unit
3. Fit the PowerLite unit to the car leaving the link wire in place
4. Connect the main power wire to the starter stud terminal and ensure the link wire spade terminal is pushed fully into position

The original bulkhead mounted solenoid is still operative, As this is a potential cause of starting failure it is possible to remove it from the starting circuit by re-routing the wiring from the solenoid to the PowerLite starter (not RAC403). Consult your dealer (or an auto electrician if you are unsure how to do this).

### Cold Start

Some cars (mostly with 9V coils) had an additional wire from the starter/solenoid to the coil to give a voltage boost to assist in starting in cold or adverse conditions. This is normally not required and can be disconnected. If, however, the starter motor cranks but fails to start then it may be necessary to connect the cold start wire with a large diode.

### Guarantee

Your new PowerLite starter should give years of trouble free motoring under all conditions. In the unlikely event that you have any problems in the first 12 months please return it to the dealer and we will repair or replace it free of charge provided it has not been abused.

### Important Notes

- Do not over-tighten the stud terminal
- Please ensure that there is a good earth connection – particularly if the car has been recently painted