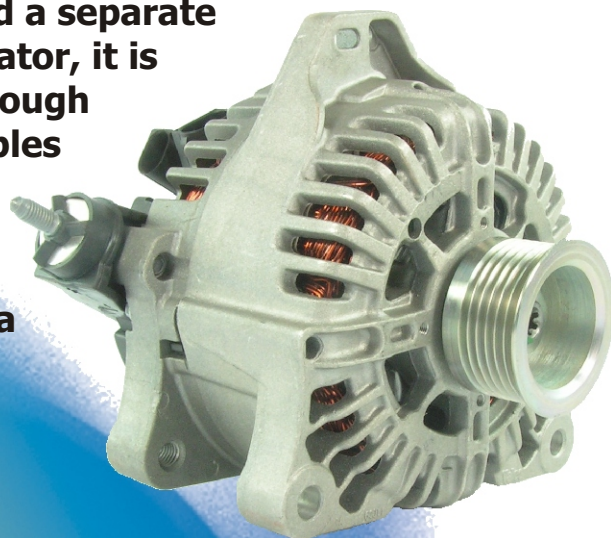


# I-StARS stop-start technology.

## **Integrated Starter Alternator Reversible System**

The i-StARS is a combined starter-alternator and is installed in place of an alternator and a separate starter. Similar to an alternator, it is linked to the crankshaft through the belt drive. I-StARS enables the combustion engine to shut off when the driver begins to brake and the vehicle has dropped below a preset speed.



**Engine Start Control  
(Starter)**      **Current rectifier  
(Alternator)**



The alternator mode features a new technology that improves the electrical efficiency of the system. The starter-alternator has a reversible tensioner which allows power to be transmitted in both directions, depending whether the i-StARS unit is working as a starter or an alternator.

### Benefits for the driver.

- 1) Fuel efficiency improved by up to 15%.
- 2) Co2 emissions reduced by up to 5%.
- 3) Engine restarts in just 400ms; 30% faster than a reinforced stop-start starter.
- 4) Quiet operation - No noise or vibration.

### i-StARS related vehicles.

<u>Part No</u>	<u>Make/Model.</u>
UNC001	Citroen C2 1.4 16V 2006> & C3 1.4 16V Senso Drive 2004>
UNC002	Smart Fortwo 1.0 mhd 2007-2011 Stop/Start, Ø9/M8 mounting hole
UNC003	Mercedes A Class & B Class A150/170/180 & B150/170/180
UNC004	Citroen/Peugeot 1.6 Hdi incl Berlingo, C4, C5, DS4 & 5 Partner. 208, 308, 508, 3008 and 5008 2009>
UNC005	Smart Fortwo 1.0 mhd 2007-2011 Stop/Start, Ø15/16.5 mounting hole

