

Smart IMS: Protection Against Potential System Damage

The Delco Remy® 39MT™ starter now boasts a new innovative feature that's simply "smart" and promises to eliminate the frustration customers experience with failures they think are system-related. This will be a simple drop-in replacement for a wide variety of heavy-duty applications.

Introducing the Smart Integral Magnetic Switch (IMS).

Smart IMS technology protects against six of the most common failure modes that arise from system issues. For each failure mode, there is a protection feature in the Smart IMS specifically designed to counter it and prevent the failure from occurring.



Programmable Printed Circuit Board (PCB) connected to the IMS

Top Six Failure Modes	Protection Feature
Click-no-crank (driver annoyance) Solenoid prolonged power	Engagement monitor/Auto-retry
Damaged pinion & ring gear teeth	Rapid re-engagement lockout
Engagement into running engine, damaged pinion & ring gear teeth	Running engine lockout
Over crank and solenoid chatter due to low battery state of charge	Low voltage lockout
Over crank	Time-limited crank
Extended overrun	Auto-disengage at engine start

The Smart IMS resulted from our engineering and sales teams delving into system issues and determining there was a way to proactively prevent them.

"We were regularly hearing about failures that weren't due to faulty starters," explains Brian Koehlinger, Sales Manager, Aftermarket. "As we understood the issues better, we knew that they could be prevented and wanted to make that

prevention automatic. We designed "intelligence" for inside the starter to make sure these common failure modes don't happen."

The result was the Smart IMS, which contains fail-safe features within the starter to prevent non-starter issues from damaging the starter and, worse, the engine. The Smart IMS senses when something is not in the proper mode and, as a result, doesn't engage the starter until the issue is resolved, either on its own or from a manual adjustment or repair.

In addition to eliminating the six failure modes, the Smart IMS prevents the costly repair or replacement costs—and denied warranty claims—that often result from these failure modes.

The Smart IMS will eventually be added to other Delco Remy starters.

	39MT Rotatable Flange All Makes	Rotatable Flange All Makes with Smart IMS
12 Volt	8200308	61003201
24 Volt	8200330	61003202

Tech Tip: Removing and Replacing Alternators with Remote Sense

Remote sense is a feature on some Delco Remy 33SI™, 34SI™, 35SI™ and 36SI™ alternators. It utilizes a small sense wire that reads the actual battery voltage and signals the regulator to increase voltage output as needed, ensuring constant battery voltage. Alternators without remote sense attempt to regulate off the battery connections on the alternator terminal and cannot ensure the same battery voltage response.

Because of the remote sense feature, you risk damaging the internal resistor and a warranty denial if you don't follow the exact removal and replacement sequence. Our latest Tech Tip video explains the proper way to remove and replace alternators equipped with remote sense.

To help avoid accidentally damaging the resistor, the following steps should be taken when removing an alternator with remote sense.

- STEP 1** › Remove all battery grounds.
- STEP 2** › Remove the alternator ground.
- STEP 3** › Locate and remove the remote sense fuse.
- STEP 4** › Remove the B+ cable from the alternator positive post.
- STEP 5** › Remove the remote sense terminal wire.
- STEP 6** › Remove the alternator.

Likewise, use the following steps in proper sequence when installing the alternator with remote sense.

- STEP 1** › Mount the alternator.
- STEP 2** › Install the remote sense wire.
- STEP 3** › Install the remote sense fuse.
- STEP 4** › Install the alternator positive cable.
- STEP 5** › Install the alternator ground cable.
- STEP 6** › Install all grounds.



If you have any questions, visit delcoremy.com, or contact us at **800-372-0222**.



You 

Watch our short Tech Tip video to learn more about removing and replacing alternators with remote sense.

Tech Competitions Showcase Knowledge and Expertise

Every year, we sponsor the electrical circuit station at state trucking associations' technician competitions around the country.

"It's always exciting to see the best technicians in the country compete and showcase their vast knowledge," says Rob Steele, Application Engineering Manager.

The tech competitions are part of the company's broader customer training efforts. On an annual basis, we participate in more than 30 technician competition events around the United States. We also conduct onsite training and offer an online training program. The investment of time and effort is well worth the return.

"By participating in these events, we're training the technicians that use our products—we're helping them learn to properly diagnose and troubleshoot



problems," says Randy Wilson, Technical Support Representative, who coordinates our participation at many state trucking association technician competitions. "We help them think of the overall health of the entire electrical system, not just the starter and alternator. And, with a broader knowledge, techs are providing longer product life and fewer warranty returns, so it's a win-win for everyone."



In addition to training events, our tech support team is available daily for problem-solving and technical issues. You can reach us at **800-372-0222** or via drts@borgwarner.com.

Application Guide: Kenworth & Peterbilt Trucks

If you want to reduce inventory, cover more applications and increase your sales, we can help.

Go to delcoremy.com (**Support > Download literature**) to download our Starter & Alternator Application Guide for Kenworth & Peterbilt trucks. The guide includes starter and alternator cross references to help you get started!



Starter & Alternator Application Guide for Kenworth & Peterbilt Trucks

- Reduce inventory
- Cover more applications
- Increase sales



Paccar Part #	Delco Remy Part #	Delco Remy Model	Engine Application	Competitive Cross Reference
DEI-6005-001 DEI-6005-004 DEI-6005-001 DEI-6005-008	8200308	39MT	CAT C9/C10/ C11/C12/ C13/C18 & Cummins ISM N14/IS15	PC1576, PC1979, RE1908, RE1925, RE1925, RE1925, RE1925, LHM2500L, MTN5478, M154678
DEI-6002-010 DEI-6002-001	8200793 & 8200971	39MT	Cummins ISX 12	22436640, 22436641
DEI-6003-006 DEI-6005-004	8200077	38MT	Paccar PK-7 & Cummins ISB, 6.7L	PC1779, 4996706, 428000-5230, 428000-5230
DEI-6005-002 DEI-6002-003 DEI-6002-009 DEI-6005-006	8204433	39MT	Paccar PK-8 & Cummins ISL 8.9L, Paccar PK-9 & Cummins ISL 8.9L	PC1576, PC1979, RE1908, MTN5478, M154678, LHM2500L, M10392502E
DEI-6002-011 DEI-3003-001 D880026	8200977 & 8201084	38MT	Paccar MX-II & Mx-13	PC0079, B647916, B24505L, B34717

DELCO REMY STARTERS

- New service/no core
- Warranty: Three year/unlimited mile

Paccar Part #	Delco Remy Part #	Delco Remy Model	Mount Type	Delco Remy Replacement	Delco Remy 38MT Upgrade	Competitive Cross Reference
D27-6006-0103P D27-1009-0160P D27-3006-0360P	8600889	8601027	Pad			AL9961H L40160 AM1771 AN5071 A04171771 D27-0105 RE022P RE025P RE035P RE036P
D27-6009-0103J D27-3006-0160J	8600310	8600726	ISO Hinge			AL9961H RE022J RE035J RE036J RE036J

DELCO REMY ALTERNATORS

ALTERNATOR CROSS REFERENCE

delcoremy.com

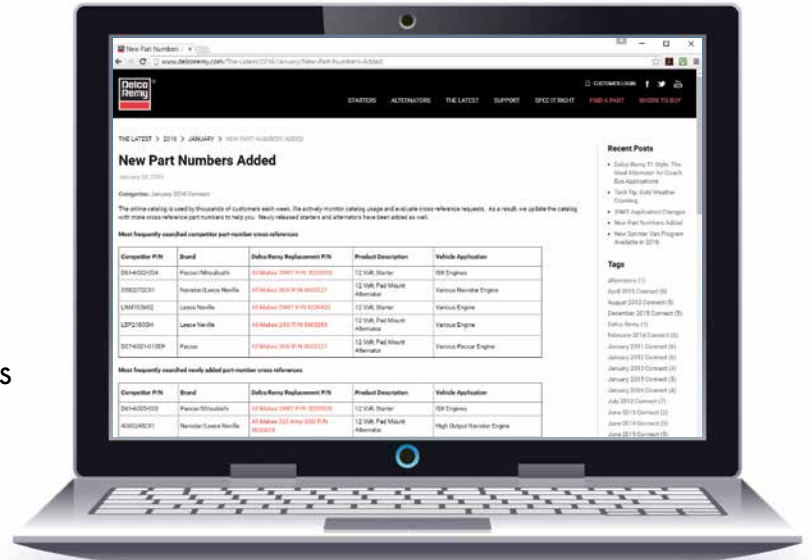
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New Part Numbers



Go to The Latest at delcoremy.com to find the following:

- Newly added part number cross references
- Most frequently searched competitor part number cross references



SPOT FOR A SHOT

Are you a fan of our Tech Tip videos? Here's the crew behind them! Special thanks to the Westcomm video production team for helping us share important technical information in an engaging, easy-to-follow manner.

Send your creative shot to delcoremyconnect@borgwarner.com for a chance to score a spot in our next issue.

Go to The Latest at delcoremy.com to download your own Delco Remy branded sign.

Teaming Up with Our Customers

Penske's Regional Service Trainers, who together cover 600 locations in the United States, visited BorgWarner recently to discuss technician training practices. Their input will be used to help troubleshoot issues and reduce warranty claims. Because we view ourselves as partners, we regularly collaborate with our customers to make processes and practices more effective—for them and for us.

