COMPLEX ELECTRONICS GUIDE

A GROWING OFFERING OF COMPLEX ELECTRONICS TO HELP YOU KEEP PACE WITH CHANGING TECHNOLOGY

www.DormanProducts.com
A GROWING OFFERING OF COMPLEX ELECTRONICS

Today's vehicles rely on a host of microprocessors linked by 5 miles of wiring running over 100 million lines of computer code – just to shift into ‘drive’.

Dorman leads the Aftermarket with its development and introduction of high-quality solutions for replacement complex electronic modules.

To keep pace with advances in today's electronics, Dorman's Development Teams concentrate on key aspects of module development:

- Software re-engineering
- Encryption
- Vehicle communication protocols
- Flashing solutions

The result is Dorman's comprehensive Complex Electronics offering – designed to save time and money by eliminating a trip to the OE Dealer for both parts and programming.

PAGE THROUGH OUR INNOVATIONS

SAFETY 03-04  CONVENIENCE 05-08  POWER TRAIN 09-11  BODY 12  HYBRID 13-15
ABS CONTROL MODULES
To help eliminate the original failure mode, an external diode has been added along with complete reflowing of solder joints
Covered by Dorman’s Limited Lifetime Warranty

**Failure Mode:** Water intrusion

### ALSO AVAILABLE

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>599-705</td>
<td>Chevrolet Silverado 1500 2002-99, GMC Sierra 1500 2002-99</td>
</tr>
<tr>
<td>599-726</td>
<td>Chevrolet Blazer 2005-00, Chevrolet S10 2004-00, GMC Jimmy 2001-00, GMC Sonoma 2004-00</td>
</tr>
<tr>
<td>599-710</td>
<td>Chevrolet Avalanche 1500 2004-03, Chevrolet Silverado 1500 2004-03, GMC Sierra 1500 2004-03</td>
</tr>
</tbody>
</table>

### AIR BAG IMPACT SENSORS
**ALSO KNOWN AS:** CRASH SENSORS
Plug and play design for an easy installation - No reprogramming necessary

**Failure Mode:** Water intrusion and/or collision damage

<table>
<thead>
<tr>
<th>Part Number</th>
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<tbody>
<tr>
<td>590-200</td>
<td>GM CK Truck Series 2007-05</td>
</tr>
</tbody>
</table>

Scan code to view install video or visit [youtube.com/dormanproducts](http://youtube.com/dormanproducts) and search Impact Sensors

### XENON HEADLIGHT CONTROL MODULES
**THE AFTERMARKET LEADER IN XENON HID HEADLAMP BALLASTS WITH OVER 10 SKUS AVAILABLE**
Restores headlights to proper operation

**Failure Mode:** Failure results in headlights not illuminating

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>601-056</td>
<td>Various BMW, Land Rover, Ford, GM, Hyundai, Mercedes and VW models, 2013-02</td>
</tr>
</tbody>
</table>

**20 OVER 60+ SKUS AVAILABLE**

**10 OVER 60+ SKUS AVAILABLE**

**25 OVER 60+ SKUS AVAILABLE**

THINK IT’S DEALER ONLY? CHECK DORMAN FIRST • [WWW.DORMANPRODUCTS.COM](http://WWW.DORMANPRODUCTS.COM)
**OCCUPANT DETECTION SENSOR**

Popular replacement part due to highly failure prone original sensor in a large population of vehicles.

**DORMAN ENGINEERED:** Upgraded gasket design prevents water intrusion.

*Failure Mode:* Water intrusion and electrical faults.

**ABS CONTROL MODULE**

Fully Remanufactured and vehicle simulator tested for quality assurance.

Updated with more durable main pump transistors to help prevent pump relay burnout.

100% replacement of gaskets, gromets and seals.

**Failure Mode:** Water intrusion.

**POWER STEERING PUMP**

Restores hydraulic pressure required for power steering.

100% replacement with all new armatures, seals, gaskets, bearings.

**Failure Mode:** Failure results in loss of power steering.
KEY FOBS
THE AFTERMARKET’S FASTEST GROWING KEYLESS REMOTE COVERAGE

Simple to Program:
Programming new remote to existing vehicle takes less than 5 minutes
All Dorman Keyless Entry Remotes include everything needed to program in under 5 minutes

DIRECT REPLACEMENT:
Fit, form and function

DO-ITYOURSELF PROGRAMMING
Simple plug and play programming tool takes only minutes to sync Dorman remote to the vehicle

CONVENIENCE

KEY FOBS

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20 OVER SKUS AVAILABLE

13731 Buick, Chevrolet, Pontiac, Saturn Sedans 2012-04

13798 Ford Trucks and SUVs 2013-98

NEW 13745
Buick, Chevrolet, GMC, Oldsmobile, Pontiac Sedans 2007-01

Programming instructions and videos available at DormanKeylessRemotes.com

DVD PLAYER REMOTE
Have you lost or broken your vehicle’s DVD remote?
This replacement brings back the convenience of watching movies in your vehicle, and restores peace and quiet on long road trips

HEADPHONES
Automatically syncs to vehicle’s entertainment systems for easy use
Includes auxiliary jack to connect to MP3 players and smartphones

10-0500F Universal

57001 A variety of GM SUVs 2015-10

THINK IT’S DEALER ONLY? CHECK DORMAN FIRST • WWW.DORMANPRODUCTS.COM
CONVENIENCE

TOUCH SCREEN INFOTAINMENT DISPLAYS

- Remanufactured to address internal solder issues in original design
- **PLUG AND PLAY**: Easy install, no programming required
- Restores navigation, audio, climate, info display functionality

599-942
Toyota Prius 2006-04 with navigation

599-943
Toyota Prius 2009-04 without navigation

POWER SEAT CONTROL MODULE

- **DORMAN ENGINEERED**: Modules are designed with higher tolerance components to reduce static shock
- **Failure Mode**: Static charge or module overheating causes a loss of ability to control one or more seat functions

601-001
Grand Cherokee, Commander 3.7L 2007-05

601-035
New
Chrysler 300, Durango, Town and Country 2013-11

SHIFT INTERLOCK MODULE

- Prevents vehicle from starting in any gear other than park or neutral
- **REDUCE REPAIR COST**: Replace just the failed part instead of the entire shifter assembly

590-002
GM CK Truck Series 2006-03

BLIND SPOT DETECTION MODULE

- **DORMAN ENGINEERED**: Detects objects and vehicle’s in close proximity to the driver’s blind spot
- **Failure Mode**: Corrosion/ water intrusion

601-035
NEW

Failure Mode: Inability to shift out of park
INSTRUMENT CLUSTERS*

READY TO INSTALL: Fully programmed with mileage and VIN, no programming or scan tool required
Fully Remanufactured and Tested – All units include all new stepper motor designs and backlight bulbs
*Available in the U.S. only

FREE GROUND SHIPPING
Included with each order. Ships same day if ordered by 3:30 p.m. EST.

SWITCHES - POWER WINDOW
Easy plug-and-play installation, no programming required
Fully remanufactured and tested for quality assurance
Failure Mode: Electrical and mechanical failure
CONVENIENCE

HVAC CONTROL MODULES

READY TO INSTALL: Plug and play design requires no programming
Fully Remanufactured and Tested - Includes backlight replacement bulbs and O-Rings (where applicable)
Failure Mode: Burnt out bulbs, fan and temperature control failure

RADIO CONTROL UNITS

EASY TO INSTALL: No programming required
DORMAN ENGINEERED: Upgraded with an auxiliary jack for easy connection to smart phones and MP3 players (where applicable)
DIRECT REPLACEMENT: Fit, form and function

Failure Mode: Original bulbs burn out or electrical failure; Failure results in a dark display and improper radio functioning

599-144
Buick Enclave 2012-08, Chevrolet Traverse 2012-09

599-196
Chrysler 300 2010-06, Dodge Charger 2010-06, Dodge Magnum 2008-06

599-226
Jeep Grand Cherokee 2004-02

586-005
Ford Taurus 2007-04, Mercury Sable 2005-04

586-025
Chrysler 2010-05, Dodge 2010-04, Jeep 2010-05, Mitsubishi 2008-06

586-022
GM 2005-95, ISUZU 1999-98

586-007

586-006
Ford Taurus 2003-01, Mercury Sable 2003-01

ALSO AVAILABLE

586-012

586-007

586-006
Ford Taurus 2003-01, Mercury Sable 2003-01

OVER

7 OVER

50 OVER SKUS

586-012

586-007

586-006
Ford Taurus 2003-01, Mercury Sable 2003-01

OVER

50 OVER SKUS

ALSO AVAILABLE

586-012

586-007

586-006
Ford Taurus 2003-01, Mercury Sable 2003-01
DIESEL GLOW PLUG CONTROLLER

Glow plug controllers are vehicle simulator tested for durability and quality assurance

DORMAN ENGINEERED: Improved design allows diagnosis of individual glow plugs

**Failure Mode:** Failed circuit within the module

<table>
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<td>904-304</td>
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<tr>
<td>Dodge Sprinter 2500 2006-03, Dodge Sprinter 3500 2006-03</td>
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<tr>
<td>904-282</td>
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<tr>
<td>Ford 2010-03, Ford 2001-00</td>
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THROTTLE BODY MOTOR

Completely remanufactured and tested for durability and performance

**HD EXCLUSIVE**

**Failure Mode:** Throttle sticks or is non-responsive due to carbon build up

TURBO AIR CONTROL VALVE

Controls the pressurized air (60psi) going to the pneumatic turbo actuator which in turn controls the turbo boost pressure

100% replacement of seals and grommets with upgraded nylon designs

**HD EXCLUSIVE**

**Failure Mode:** Carbon build-up on the plunger

AUTO TRANS PRESSURE SENSOR TRANSDUCER

PLUG AND PLAY: Easy installation without the need for programming

**Failure Mode:** Original internal sensor fails

<table>
<thead>
<tr>
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<tr>
<td>601-016</td>
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<tr>
<td>Grand Cherokee, Ram, Dakota 2007-00</td>
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<td>904-304</td>
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<td>Dodge Sprinter 2500 2006-03, Dodge Sprinter 3500 2006-03</td>
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<td>Ford 2010-03, Ford 2001-00</td>
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<tr>
<td>341-5001</td>
</tr>
<tr>
<td>Detroit Diesel Series 60, 16, 15, 13 Engines 2015-87</td>
</tr>
<tr>
<td>599-5001</td>
</tr>
<tr>
<td>Cummins ISX 15.0, Cummins ISM 10.8 2007-05</td>
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**ECCENTRIC SHAFT SENSOR**

Detects angle of eccentric shaft
- Direct replacement for popular BMW application
- Housing material upgraded to prevent oil intrusion

**Failure Mode:** Oil leaks into electronics. Failure results in vehicle misfire and illumination of check engine light

**TURBOCHARGER VANE POSITION SOLENOID**

Determines the position of the turbocharger vane

Replacement of a failed sensor prevents loss of engine power and potential wear and tear to the vehicle's turbo system

**Failure Mode:** Carbon build up causes the original sensor to stop functioning properly

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**EGR VALVE**

100% New, not remanufactured

**PLUG AND PLAY:**
No programming required

**Failure Mode:** Carbon build up causes piston to seize
TRANSFER CASE CONTROL MODULES

Fully remanufactured and vehicle simulator tested for quality assurance

**REDUCE REPAIR COST:** Dorman unit does not require programming, saving the time and money associated with a trip to the dealer

Completely remanufactured and tested

15 SKUS AVAILABLE

**Failure Mode:** Corrosion over time

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FUEL PUMP DRIVER MODULE

**PLUG & PLAY:** for easy installation

**DORMAN ENGINEERED:** Improved micro-processor to provide greater response time and reliability

**Failure Mode:** Loss of electrical connection

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**NEW** 599-192
Chevrolet Silverado/Tahoe 2013-07, GMC Sierra, Yukon 2014-07 with RPO Code NQH

**NEW** 599-250
Buick Rainier 2007-06, Chevrolet Trailblazer 2009-06, GMC Envoy 2009-06

599-114
Chevrolet 2007-03, GMC 2007-03

599-112 NEW
Cadillac Escalade 2007, Chevrolet Silverado 2007, GMC Sierra, Yukon 2007

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601-005
Ford, Jaguar, Mercury Sedans 2008-99
**BODY CONTROL MODULES**

Fully remanufactured and tested for durability and quality assurance

100% replacement of fuses, relays, resistors, capacitors and soldering joints (where applicable)

**Failure Mode:** Original unit fails due to excessive heat, shock, movement or mechanical wear

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**INTEGRATED CONTROL MODULES**

**ALSO KNOWN AS:** TOTALLY INTEGRATED POWER MODULE (TIPM)

Fully remanufactured and vehicle simulator tested for quality assurance

Updated with the most recent programming available

No programming required

**Failure Mode:** Internal circuit failure causes erratic electrical problems in original unit

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**502-007**
- Buick 2012-06, Cadillac 2012-06, Chevrolet 2012-06, GMC 2012-07, Pontiac 2009-07, Saturn 2010-07

**502-009**
- Chevrolet Malibu 2005-04, Pontiac G6 2005

**502-001**
- Buick 2012-06, Cadillac 2012-06

**502-008**
- Chevrolet 2007-03, GMC 2007-03

**502-000**

**502-007**
- Chevrolet 2007-03, GMC 2007-03, Hummer 2007-06

**502-008**
- Chevrolet 2007-03, GMC 2007-03

**502-009**
- Chevrolet Malibu 2005-04, Pontiac G6 2005

**599-906**

**599-900**
- Dodge Ram 2500 2007, Dodge Ram 3500 2007

**599-914**
- Dodge Ram 2500 2009-08, Dodge Ram 3500 2009-08

**599-909**
- Chrysler PT Cruiser 2009-06
ELECTRIC MOTOR TRANSmission Stator

Provides energy to help power the drive motor

**REDUCE REPAIR COST:** Replace just the failed stator instead of the entire assembly, saving up to 5 hours in labor costs.

Includes removable alignment studs to assist with installation.

**Failure Mode:** Vibration, friction, contamination and heat cause the original windings insulation to breakdown, short and burn out

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**DRIVE MOTOR INVERTERS**

Restores hybrid operation and drivability of vehicle

Replacement protects against potential damage to other hybrid system components

Fully remanufactured and vehicle tested for performance and quality assurance

**Failure Mode:** Failure results in reduced hybrid system performance, and illumination of check engine light

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**HYBRID BATTERY SERVICE PLUGS**

Safety plug for hybrid drive batteries to ensure voltage is not transmitted when plug is removed

Compatible with Dorman’s hybrid drive batteries

**Failure Mode:** Lost or blown fuse; Failure results in battery not functioning properly

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**NEW**

587-990

Toyota Prius 2003-01

587-900

Toyota Prius 2003-01

587-901

Toyota Prius 2009-04

587-020

Lexus RX400h 2008-06, Toyota Highlander 2008-06, Toyota Prius 2003-01

587-022

Lexus GS450h 2011-07, Toyota Camry 2011-07

587-021

Lexus LS600h 2009-08, Toyota Prius 2009-04

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HYBRID BATTERY PACKS

Ready to install direct replacements - no programming required
Includes modules (such as ECU) - no need to reuse from old battery
Completely remanufactured and tested
Each unit and individual cell is thoroughly tested and balanced to confirm optimal battery pack performance

DORMAN ENGINEERED: Toyota batteries bus bars are upgraded to nickel plating to reduce corrosion

DORMAN VS. OE
- Nickel plating to reduce corrosion
- Non-nickel plating prone to corrosion
VVT SOLUTIONS

LEADING VVT TECHNOLOGY SOLUTIONS

Comprehensive Coverage for both Variable Valve Timing Solenoids and Camshaft Phasers

High Quality Replacement Parts | Coverage for Import and Domestic Applications

VARIABLE VALVE TIMING SOLENOIDS

OVER 75 SKUS COVERING OVER 83 MILLION REPAIR OPPORTUNITIES

917-219
GM 2010-04

917-224
Acura 2006-02, Honda 2011-02

CAMSHAFT PHASERS

OVER 15 SKUS COVERING OVER 24 MILLION REPAIR OPPORTUNITIES

917-255
Buick 2004,
Chevrolet 2004-02,
GMC 2004-02, Isuzu 2004-03,
Oldsmobile 2004-02

917-257
Toyota Celica 2005-00, Corolla 2008-98,
Matrix 2008-03, MR2 Spyder 2005-00

ALL COMPONENTS UNDERGO EXTENSIVE TESTING TO ENSURE QUALITY | PRECISION FIT | DURABILITY | PERFORMANCE

— BACKED BY DORMAN’S LIMITED LIFETIME WARRANTY —

FOR MORE INFORMATION VISIT
WWW.DORMANPRODUCTS.COM/VVTSOLUTIONS

SCAN FOR MORE INFORMATION