

### **COMPLEX ELECTRONICS GUIDE**

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



**NEW PRODUCTS • NEW SOLUTIONS • NEW OPPORTUNITIES** 

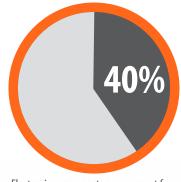
# CONTENTS



### A GROWING OFFERING OF COMPLEX ELECTRONICS

Todays' 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'.

Just to shift into 'drive'. Dorman leads the Aftermarket with its development and introduction of high-quality solutions for replacement complex electronic modules.



Electronic components now account for 40% of today's automotive production costs

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 CONVENIENCE OS-08 O9-11 D04 O5-08 O9-11 D04 O5-08 O9-11 D04 O5-08 O9-11 D04 O5-08 O9-11 O5-08 O5-08 O9-11 O5-08 O

### **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

**599-705** Chevrolet Silverado 1500 2002-99, GMC Sierra 1500 2002-99

#### 599-726

Chevrolet Blazer 2005-00, Chevrolet S10 2004-00, GMC Jimmy 2001-00, GMC Sonoma 2004-00

#### 599-710

Chevrolet Avalanche 1500 2004-03, Chevrolet Silverado 1500 2004-03, GMC Sierra 1500 2004-03 **599-701** Chevrolet 2002-00, GMC 2002-00

### AIR BAG IMPACT SENSORS

ALSO KNOWN AS: CRASH SENSORS

NEW

Plug and play design for an easy installation -No reprogramming necessary

**590-200** GM CK Truck Series 2007-05



Failure Mode: Water intrusion and/or collision damage

### 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



### 601-056 NEW

Various BMW, Land Rover, Ford, GM, Hyundai, Mercedes and VW models, 2013-02







## SAFETY

AIRBAG

### 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

**601-004** Most Toyota and Lexus models 2015-05

### 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

### **EXCLUSIVE**

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

**599-950** Mini Cooper 2008-02



### **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

Direct/FIT



# CONVENIENCE



#### **DO-IT-YOURSELF PROGRAMMING**

Simple plug and play programming tool takes only minutes to sync Dorman remote to the vehicle



Ford Trucks and SUVs 2013-98

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



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



57001 A variety of GM SUVs 2015-10

### **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 **10-0500F** Universal

### HEADPHONES

Automatically syncs to vehicle's entertainment systems for easy use

Includes auxiliary jack to connect to MP3 players and smartphones





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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



**599-943** Toyota Prius 2009-04 without navigation



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

### 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



Failure Mode: Inability to shift out of park

**590-002** GM CK Truck Series 2006-03

### POWER SEAT CONTROL MODULE

599-942

Toyota Prius 2006-04 with navigation

> DORMAN ENGINEERED: Modulos are designed

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



### BLIND SPOT DETECTION MODULE

Detects objects and vehicle's in close proximity to the drivers blind spot

Failure Mode: Corrosion/ water intrusion

### 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

Ground



# CONVENIENCE

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### FREE GROUND SHIPPING Included with each order. Ships same

day if ordered by 3:30 p.m. EST.

**599-337** Chevrolet Silverado, Suburban 2012-07, GMC Sierra, Yukon XL 2012-07



**599-390** Cadillac 2002, Chevrolet 2002-00, GMC 2002-00



**599-806** NEW Chevrolet 2002-00, GMC 2002-00

#### **599-343** Chevrolet 2005-03, GMC 2005-03, Upgraded

### SWITCHES -POWER WINDOW

Easy plug-and-play installation, no programming required

Fully remanufactured and tested for quality assurance

Failure Mode: Electrical and mechanical failure





**901-291R** Chevrolet 2013-07, GMC 2013-07 **901-296R** Cadillac 2006-03, Chevrolet 2007-03, GMC 2007-03, Hummer 2007-03

901-299R

Chevrolet Trailblazer 2009-06,

Chevrolet Trailblazer EXT 2006

901-298R Cadillac 2006-03, Chevrolet 2006-03, GMC 2006-03, Hummer 2004-03

**901-295R** Chevrolet Trailblazer 2004-02, Chevrolet Trailblazer EXT 2004-0



**CONVENIENCE** 

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PASS

### 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





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

599-144

Buick Enclave 2012-08, Chevrolet Traverse 2012-09



Jeep Grand Cherokee 2004-02



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



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



NVFR

VAII ARI F



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

#### ALSO AVAILABLE

586-012 Chrysler 2000-97, Dodge 2002-97, Eagle 1997, Jeep 2002-96, Jeep 1993, Plymouth 2000-97

586-007 Ford 2005-98, Mazda 2003-99, Mercury 2001-98

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



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



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



# **POWERTRAIN & 4WD**



### 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

### ALSO AVAILABLE

**904-304** Dodge Sprinter 2500 2006-03, Dodge Sprinter 3500 2006-03

**904-282** Ford 2010-03, Ford 2001-00 **904-310** Sprinter, Freightliner, Jeep, Mercedes 3.0L Diesel 2015-05



**341-5001** Detroit Diesel Series 60, 16, 15, 13 Engines 2015-87

### THROTTLE BODY MOTOR

Completely remanufactured and tested for durability and performance

### **EXCLUSIVE**

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



**599-5001** Cummins ISX 15.0, Cummins ISM 10.8 2007-05

### 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

### **EXCLUSIVE**

Failure Mode: Carbon build-up on the plunger

601-016 NEW Grand Cherokee, Ram, Dakota 2007-00

### AUTO TRANS PRESSURE SENSOR TRANSDUCER

**PLUG AND PLAY:** Easy installation without the need for programming

Failure Mode: Original internal sensor fails



# **POWERTRAIN & 4WD**

917-030 BMW 2012-08

### 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

> 904-235 NEW GM 6.6L Diesel Vehicles 2015-06

904-219 Ford 6.0L Diesel Engines 2010-03

### **EGR VALVE**

100% New, not remanufactured **PLUG AND PLAY:** No programming required

Failure Mode: Carbon build up causes piston to seize



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# **POWERTRAIN & 4WD**

599-112 NEW

599

Cadillac Escalade 2007, Chevrolet Silverado 2007,

GMC Sierra, Yukon 2007



### 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



Failure Mode: Corrosion over time



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



mmmm

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



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





# **BODY CONTROL**

502-009

### 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



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



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



502-000 Cadillac 2011-07,

### Chevrolet 2011-07, GMC 2011-07

### **INTEGRATED CONTROL MODULES**

ALSO KNOWN AS: TOTALLY INTEGRATED POWER MODULE (TIPM)

Fully remanufactured and vehicle simulator tested for quality assurance

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

> 599-924 Dodge Ram 2500 2006, Dodge Ram 3500 2006

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

599-909 Chrysler PT Cruiser 2009-06



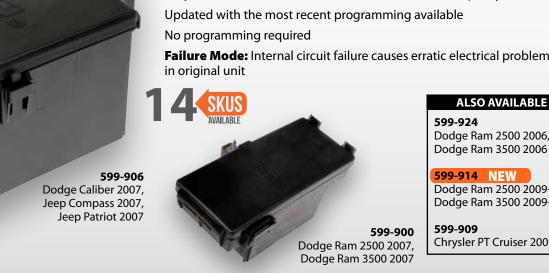
502-001

Chevrolet 2012-06,

Pontiac 2009-07, Saturn 2010-07

GMC 2012-07.

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



• NEW SINCE 1918

**COMPLEX ELECTRONICS •** THE LEADER IN FORMERLY "DEALER ONLY" PARTS

### HYBRID

### 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

**NEW 587-990** Toyota Prius 2003-01

### 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



587-900

Toyota Prius 2003-01

ALSO AVAILABLE

587-901 NEW Toyota Prius 2009-04

> **587-022** Lexus GS450h 2011-07, Toyota Camry 2011-07

### 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

**587-020** Lexus RX400h 2008-06, Toyota Highlander 2008-06, Toyota Prius 2003-01

**587-021** Lexus LS600h 2009-08, Toyota Prius 2009-04







**587-013** Ford Escape 2009-05, Mercury Mariner 2009-06

**587-010** Nissan Altima 2011-07



### **ALSO AVAILABLE FROM DORMAN**



QUALITY • INNOVATION • VALUE

### **DORMAN** 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** 

917-224

917-219

GM 2010-04

### **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 DORMAN QUALITY | PRECISION FIT | DURABILITY | PERFORMANCE



Acura 2006-02, Honda 2011-02





- BACKED BY DORMAN'S LIMITED LIFETIME WARRANTY -



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