## **SWITCHES AND RELAYS**

M	

NAPA<sup>®</sup> Echlin<sup>®</sup> offers nearly 10,000 high-quality Switches and Relays in hundreds of categories



Echlin®has more than 250 Oil Pressure Switches, representing 270M repair opportunities



Most switches and relays are entirely powertrain neutral, meaning they fit gas, diesel, hybrid and electric vehicles

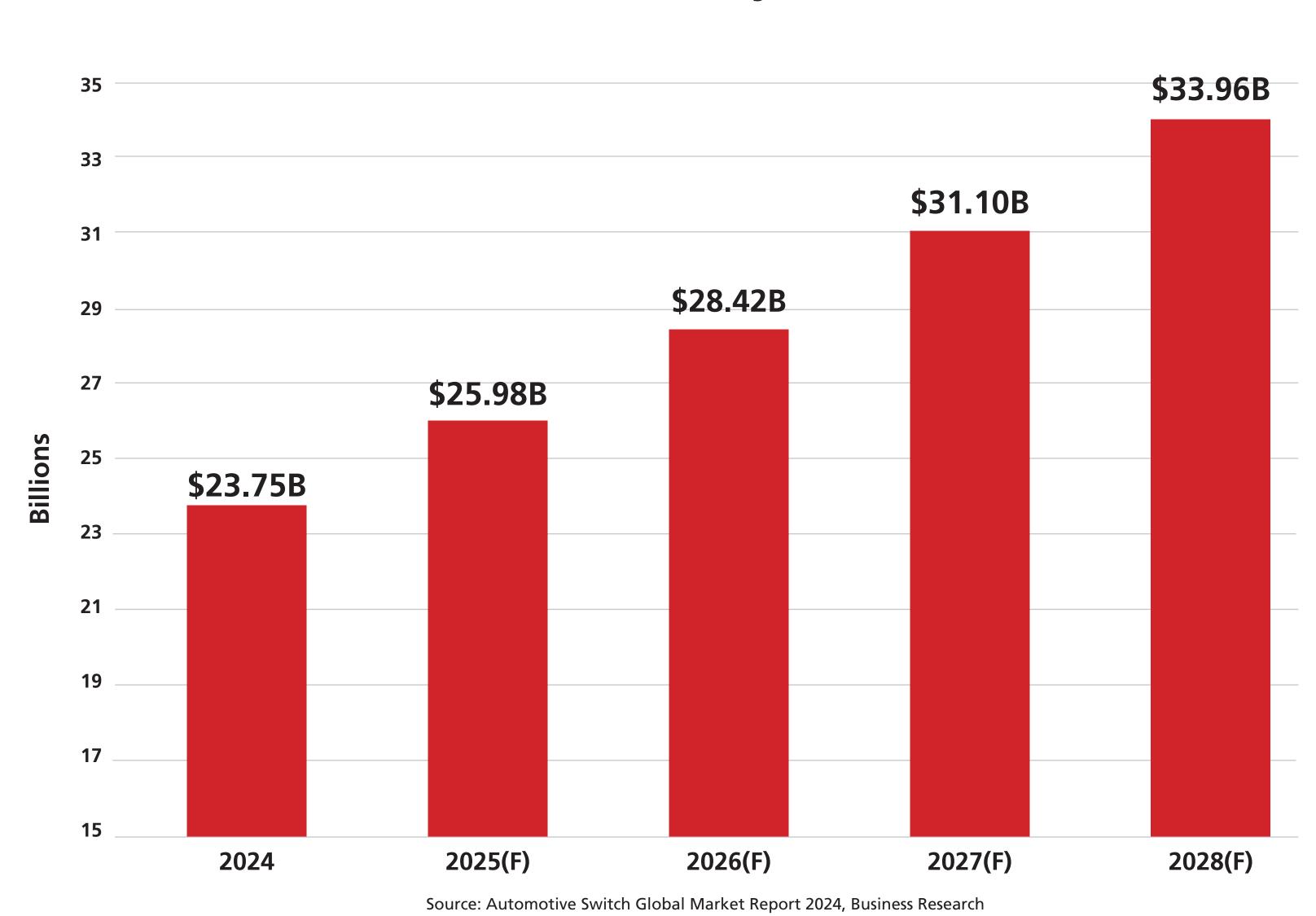
## What's in your box?<sup>™</sup> Here's what's in ours.

**ECHLIN** LOOKS RIGHT. FITS RIGHT. PERFORMS RIGHT.



## Growing Market

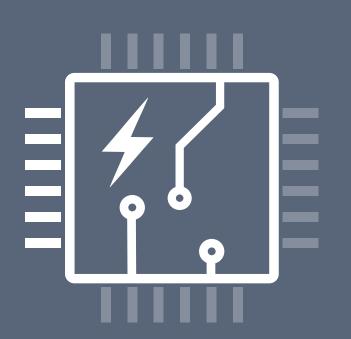
Driven by electronic safety systems, additional passenger comfort features and infotainment systems, the number and complexity of switches on vehicles continue to grow. These additional switches will help create more service opportunities for both traditional automotive repair facilities and collision repair shops.





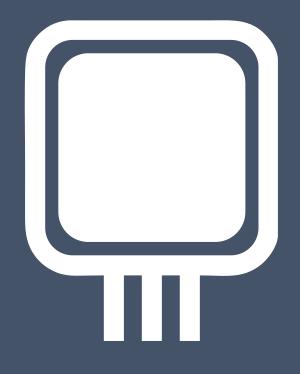
### The Automotive Switch Market is Forecasted to Grow 43% by 2028

## Impact on Vehicle **Systems**



If a switch shorts out, it may pull the reference voltage down with it and cause other sensors and components to not work properly





Any time a load-bearing electrical device fails, it is highly recommended to also replace the corresponding relay. It is good insurance on the new part



Newer brake switches are more than a simple on/ off switch, so they need to be calibrated after they are replaced. Failure to do so may affect starting, the start/stop system, ABS system, and electronic throttle control system



## Your Complete Program

Echlin<sup>®</sup> offers thousands of precisionengineered Switches across multiple categories. Our Switches are designed for both reliability and correct performance in all conditions.

Visit NAPAEchlin.com for more details on the Switches we offer for specific vehicles.

**Chassis and Drivet Clutch Starter Safety** Four Wheel Drive Act Four Wheel Drive Sel Fuel Pump Cut-Off Sv Neutral Safety Switcl Transfer Case Switch **Transmission Control** 

#### **Body Light Switch**

Back-Up Light Switch **Courtesy Light Switch** Hazard Light Switche Headlight Dimmer Sv Headlight Switches Instrument Panel Dir **Stoplight Switches** Turn Signal Switches



### **Echlin<sup>®</sup> Switch Program**

rain	<b>Switches</b>

#### **Interior Switches**

y Switches	Cruise Control Release Switches
ctuator Switches	Cruise Control Switches
elector Switches	Fuel Tank Selector Switches
Switches	Liftgate Release Switches
ches	Clock Spring Switches
nes	Parking Brake Switches
ol Switches	Power Door Lock Switches
	Power Seat Switches
les	Power Window Switches
hes	Remote Mirror Switches
ches	Windshield Wiper Switches
es	Fog Lamp Switches
Switches	Power Sunroof Switches
	Trunk Release Switches
mmer Switches	Vehicle Ride Height Switches

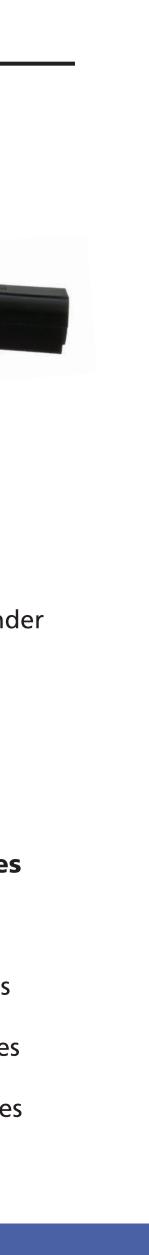


#### **Ignition Switches**

Ignition Switches with Lock Cylinder Ignition Push Button Switches Ignition Starter Switches

#### **Pressure and Vacuum Switches**

**Oil Pressure Switches** Power Steering Pressure Switches Transmission Oil Pressure Switches Valve Timing Oil Pressure Switches



## Your Complete Program

Echlin<sup>®</sup> has more than 1,300 Relays that cover more than 200 different categories. Our complete Relay program ensures that you find the part you are looking for, with the quality and performance you expect from Echlin<sup>®</sup>.

#### **Echlin<sup>®</sup> Pro Training Tip**

On NAPAEchlin.com, you can search "relay" and quickly filter by amperage and terminal type.

**ABS Relays** Accessory Relays **AC Compressor Clutch Relays** AC Relays Adjustable Pedal Relays Air Bag Relays All Wheel Drive Control Relays Automatic Headlight Relays Check Lamp Relays **Coolant Fan Relays** Daytime Running Lamp Relays **Electronic Brake Control Relays** 



### **Echlin® Relay Program**

**Engine Control Relays** 

Flashers

Headlight Dimmer Switch Relays

Heated Mirror Relays

Horn Relays

Ignition Control Module Relays

Ignition Relays

**Keyless Entry System Relays** 

Multi-function Relays

**Overdrive Relays** 

Power Door Lock Relays

**Power Window Relays** 

Rear Window Defogger Relays

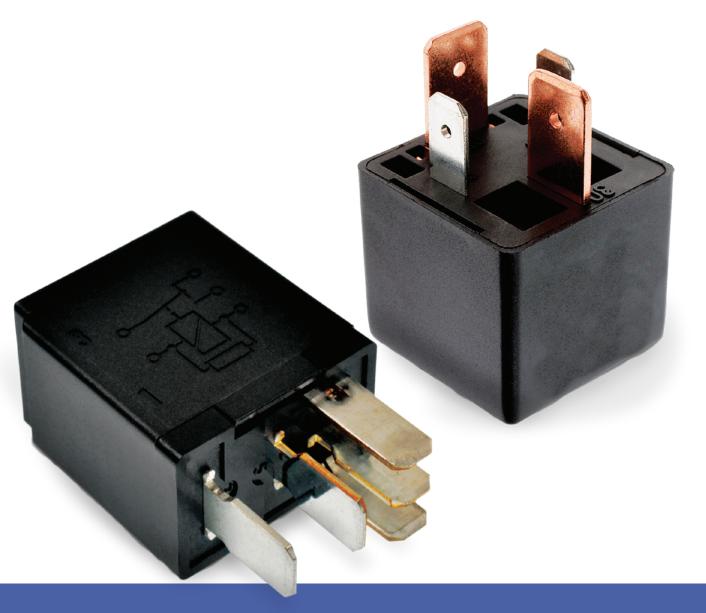
Rear Window Wiper Relays

Secondary Air Injection Pump Relays

Trailer Towing Package Relays

Wiper Relays

...and hundreds of more applications



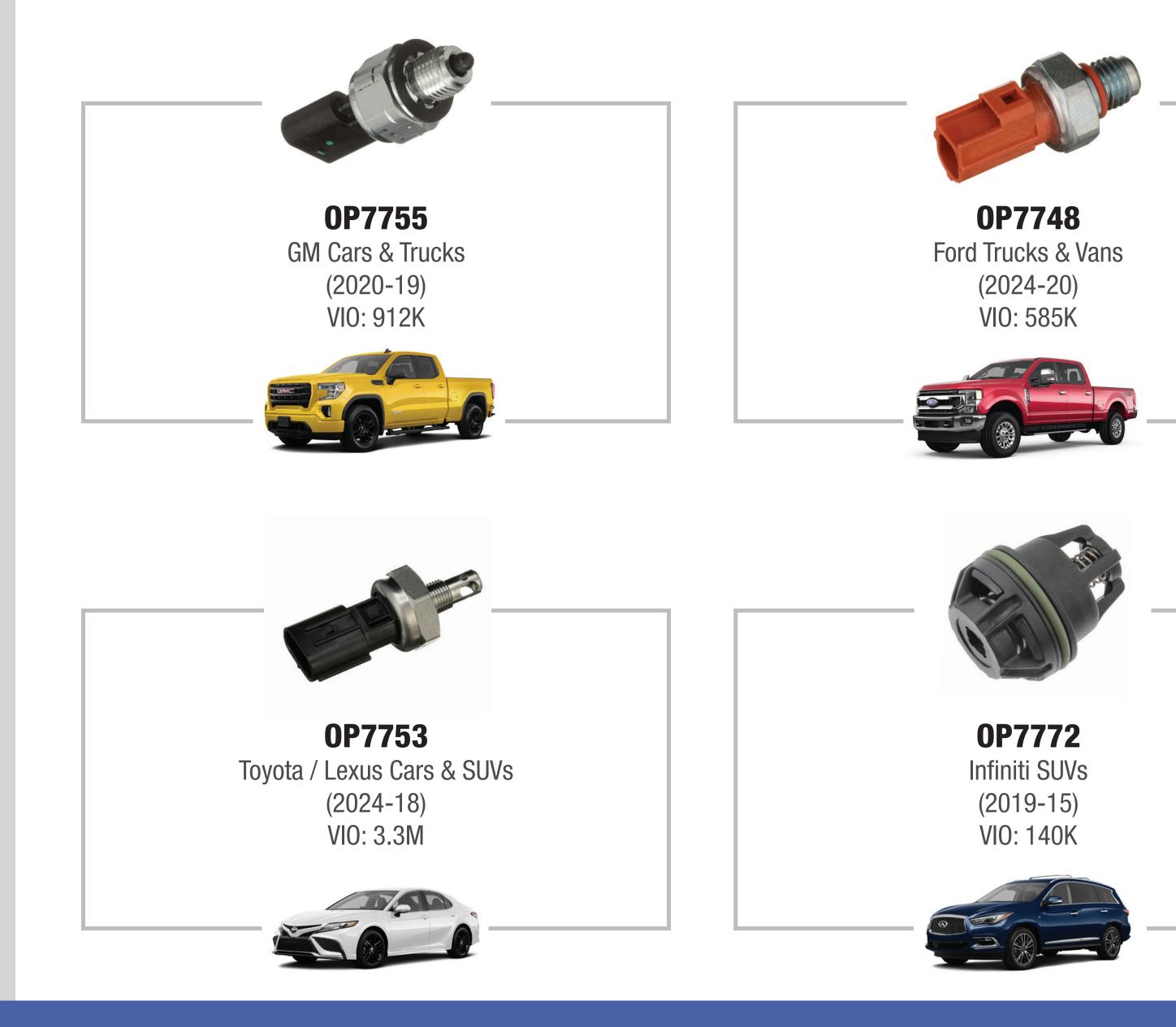


## What's New

### **Oil Pressure Switches**

Echlin<sup>®</sup> has over 250 Oil Pressure Switches representing almost 270 million repair opportunities. Our industry-leading coverage gets better all the time as we frequently release new Switches for import and domestic vehicles.

For the most recent applications, check the online catalog at NAPAEchlin.com.











## What's New

### **Power Window Switches**

Echlin<sup>®</sup> offers more than 1,500 Power Window Switches. New Power Window Switches, along with Cruise Control Switches, Power Seat Switches, and other interior Switches are being introduced regularly.

For the most recent applications, check the online catalog at NAPAEchlin.com.











Oil pressure switches are critical to monitoring the health of engine oiling systems. Echlin<sup>®</sup> Oil Pressure Switches undergo computercontrolled calibration to ensure precise performance in all conditions.

**Easier Installation** 

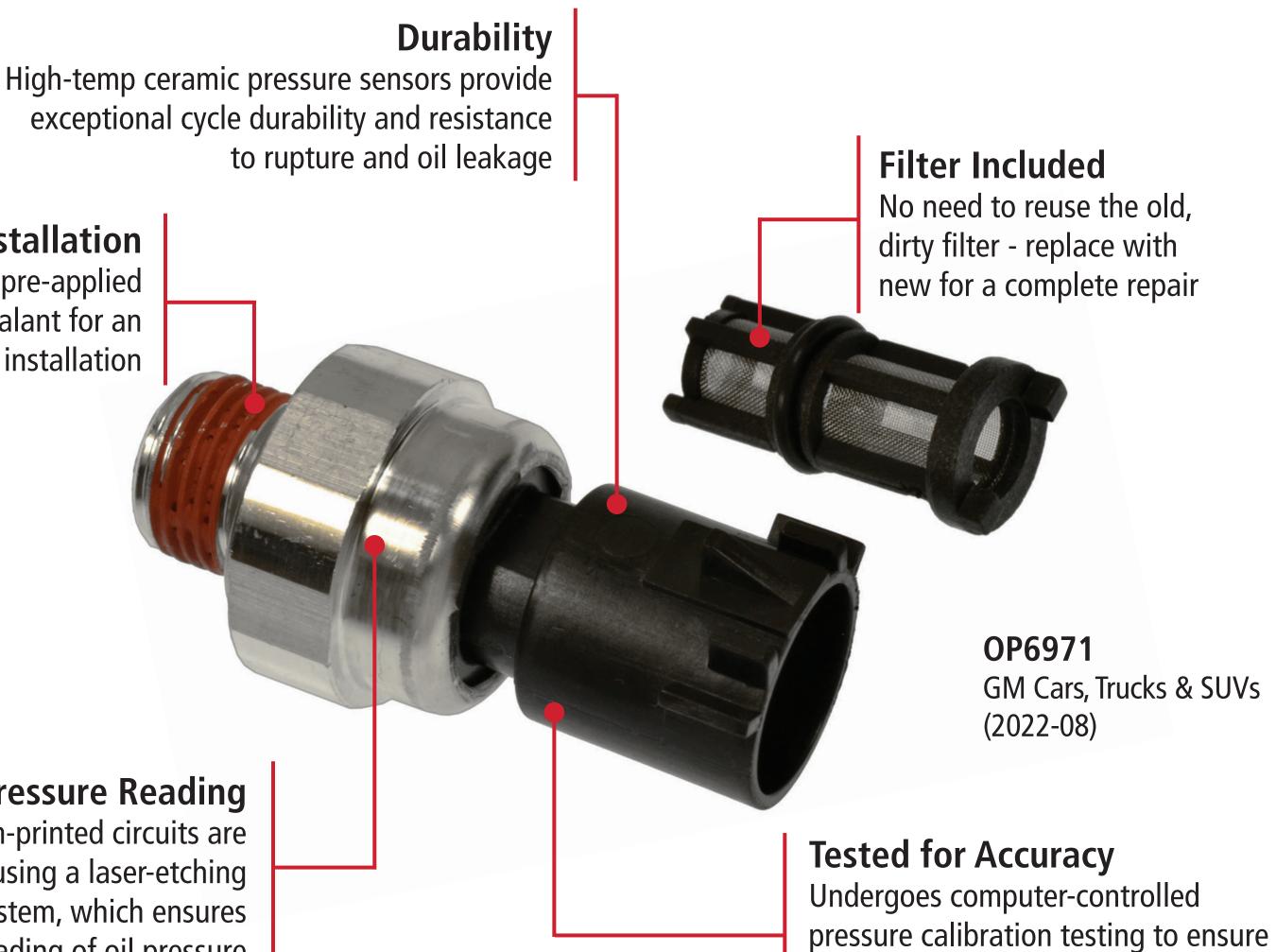
Includes pre-applied thread sealant for an easy installation

**Accurate Pressure Reading** 

Thick, film-printed circuits are calibrated using a laser-etching welding system, which ensures accurate reading of oil pressure

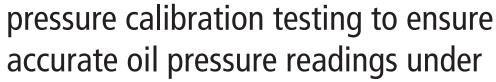


### **Echlin<sup>®</sup> Oil Pressure Switches**



NAPAEchlin.com

all operating conditions



## **Top Movers: Oil Pressure Switches**

### L V P O RT APPLICATIONS



**OP6730** Hyundai / Kia Cars & SUVs (2023-03)



**OP6163** Toyota / Lexus Cars, Trucks & SUVs (2024-92)

### DOMESTIC APPLICATIONS

(NAPA) ECHLIN.



**OP6196** GM Cars, Trucks, SUVs & Vans (2009-97)

**Oil Pressure Switches** 



**OP6971** GM Cars, Trucks, SUVs & Vans (2022-09)



**OP6612** Multiple Makes Cars, Trucks, SUVs & Vans (2020-70)



**OP6775** Honda / Acura Cars, Trucks & SUVs (2019-84)



**OP6115** Nissan / Infiniti Cars, Trucks, SUVs & Vans (2020-84)



**OP6889** Ford / Lincoln / Mercury Cars, Trucks, SUVs & Vans (2024-97)



**OP6185** Chrysler / Dodge / Jeep / RAM Cars, Trucks, SUVs & Vans (2017-99)



**OP6722** Chrysler / Dodge / Jeep / RAM Trucks, SUVs & Vans (2013-02)







Echlin<sup>®</sup> Ignition Switches are a direct replacement to the original. They are designed for precise function and easy installation.

Ignition Switches are also 100% powertrain neutral, meaning they will represent service opportunities for years to come.

#### Performs in **Extreme Conditions**

Copper alloy conductors ensure superior electrical conductivity with low resistive losses

> KS7515 Honda Cars & SUVs (2013-08)



### **Echlin® Ignition Switch with Lock Cylinder**

Constructed for Durability High-grade aluminum to ensure durability

**Designed and Tested** for Performance **Ensures superior mechanical** and electrical switching performance



## **Top Movers: Ignition Switches**

### **IMPORT** APPLICATIONS



**KS6830** Honda / Acura Cars & SUVs (2013-02)



KS7370 Hyundai / Kia Cars & SUVs (2023-10)

### DOMESTIC APPLICATIONS



KS6254 GM Trucks, SUVs & Vans (2011-01)



**KS6804** Ford / Lincoln / Mercury Cars, Trucks, SUVs & Vans (2019-00)





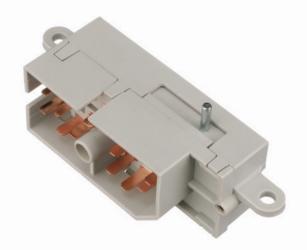
**KS6405** Nissan Cars, Trucks & SUVs (1997-86)



KS7354 Honda / Acura Cars (2014-08)



**KS7053** Hyundai / Kia Cars & SUVs (2014-05)



**KS6667** Ford / Lincoln / Mercury Cars, Trucks & SUVs (2005-90)



**KS7107** GM Trucks, SUVs & Vans (2020-07)

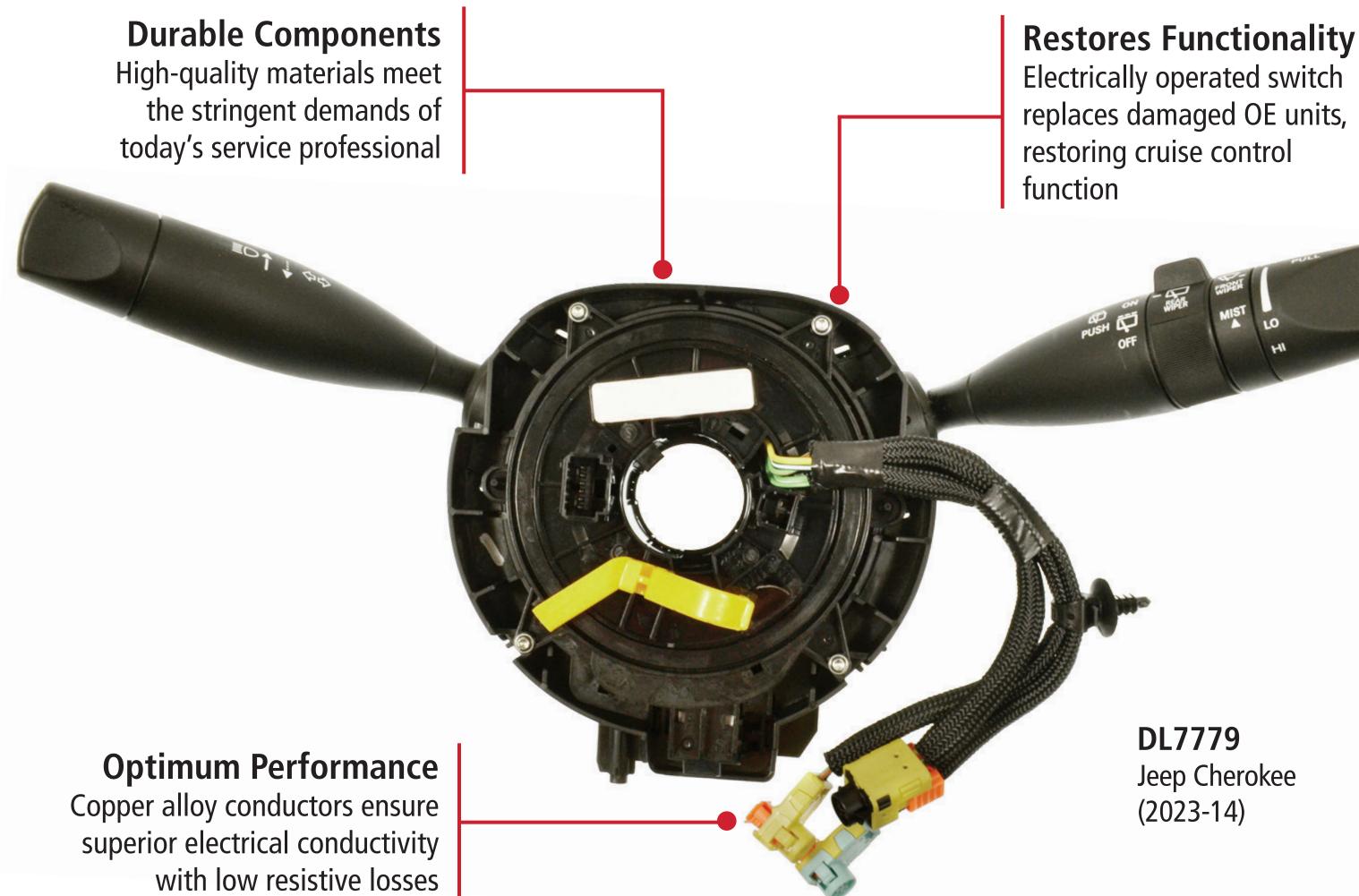


**KS6861** Chrysler / Dodge / Jeep Cars & SUVs (2018-01)





Echlin<sup>®</sup> offers thousands of directreplacement interior and driver/passengeroperated switches. All Echlin<sup>®</sup> interior Switches are designed and manufactured for a precise fit and correct on-vehicle performance. Interior Switches are also entirely powertrain neutral.





### **Echlin<sup>®</sup> Combination Switches**







## **Top Movers: Combination Switches**





**DL7194** Toyota Cars & SUVs (2015-05)



**DL7330 Nissan Sentra** (2012-07)

### DOMESTIC APPLICATIONS

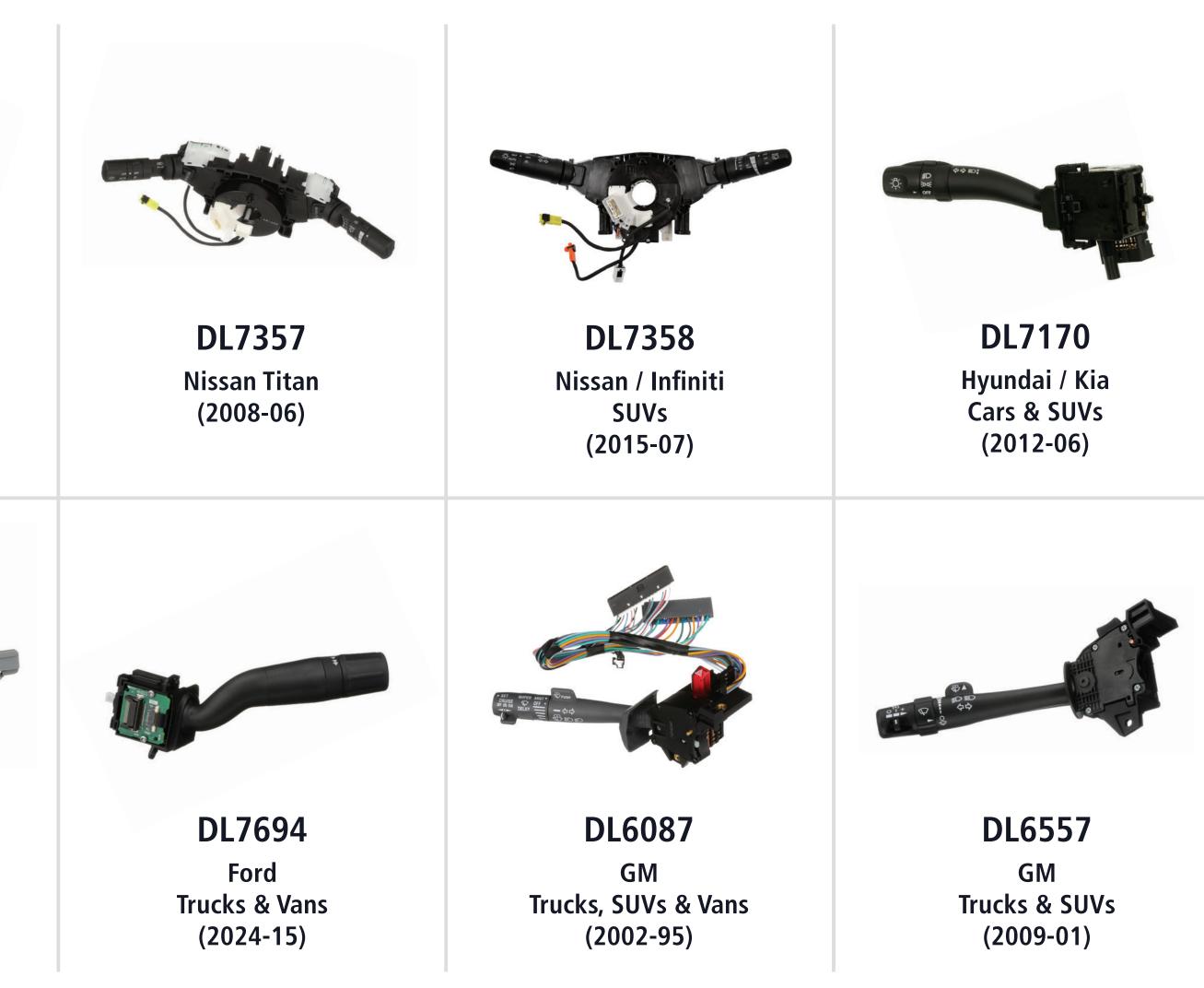


**DL6803** Ford Cars & Vans (2019-04)



**DL6739** Ford / Lincoln Trucks (2008-05)







### MPORT APPLICATIONS



PA5217 Kia Sportage (2017-11)



PA1697 Honda Civic (2011-06)

### DOMESTIC APPLICATIONS



PA1426 GM Trucks & SUVs (2017-07)



PA1510 GM Trucks & SUVs (2008-03)



## **Top Movers: Power Window Switches**



Echlin<sup>®</sup> Relays are the product of highquality design, manufacturing and testing. With over 1,300 different Relays available, Echlin<sup>®</sup> has the Relay you want with the quality and performance your customers need.

#### Withstands Electrical Over-stress

Circuitry is designed to withstand electrical overstress conditions such as reverse polarity, ESD transients, and jump start voltage extremes

**AR533** Dodge / Chrysler / Plymouth / Jeep / RAM (2023-94)

> **Corrosion-Resistant** Copper terminals with aluminum inlay keep electrical resistance low and provide wire bonding and corrosion protection





### **Echlin<sup>®</sup> Engine Cooling Fan Relay**

### **Current and** Voltage Tested

Tested for continuous current load, quiescent current, voltage drop, pull-in current, voltage and hysteresis

#### Durability

Provides excellent corrosion resistance and thermal conductivity

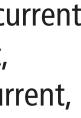




Accessory **Relays** 



Starter Relays



## **Related** Parts

In addition to over 50 different types of Switches, we also offer the highquality Connectors you need to get your customers back on the road.

To find the Connector you are looking for, visit NAPAEchlin.com.



Multi-function Switch Connectors **Door Jamb Switch Connectors Oil Pressure Switch Connectors Coolant Fan Switch Connectors** Heated Seat Switch Connectors Seat Belt Switch Connectors **Coolant Fan Switch Connectors** 



### **Echlin<sup>®</sup> Switch Connectors**





- **Door Cylinder Anti-Theft Switch Connectors**
- **Door Lock Position Switch Connectors**
- Four Wheel Drive Selector Switch Connectors
- Fuel Pump Cut-Off Switch Connectors
- **Fuel Door Release Switch Connectors**

**Backup Light Switch Connectors Clutch Pedal Switch Connectors** Shift Interlock Switch Connectors **Power Take-Off Switch Connectors** Torque Converter Lock-Up Switch Connectors A/C Cut-Off Switch Connectors **Axle Shift Switch Connectors** Fog Lamp Switch Connectors Four Wheel Drive Selector Switch Connectors **Choke Heater Switch Connectors** ...and more



## **Echlin**<sup>®</sup> **Pro Training Tech Tip**

As experienced ASE-certified automotive technicians themselves, Echlin<sup>®</sup> Pro Trainers are experts in engine and switch technology. Here's what they say to look out for during an install.

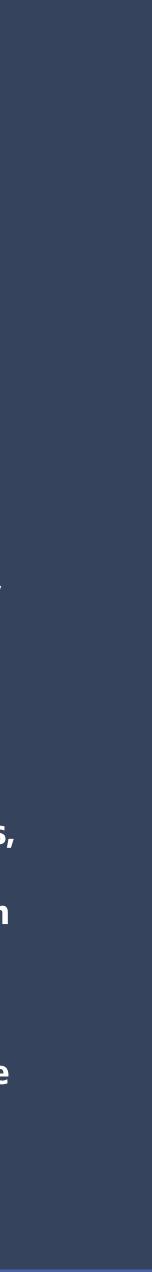




Some switches, such as power window switches, are actually a module and require programming and calibrating after replacement. Always refer to service information for complete repair instructions prior to ordering parts



Many modern switches are simply an input to a module. During the diagnostic process, technicians should scan for DTCs in all modules, use data to monitor the input from the switch, and bi-directionally control the driven device to ensure that it is functional



## Echin® Professional Training

### Award-Winning In-Person, Live Virtual, and Online Learning

Echlin<sup>®</sup> Pro Training delivers accredited classes that educate technicians in the latest automotive repair technologies, and techs can earn CEU credits.

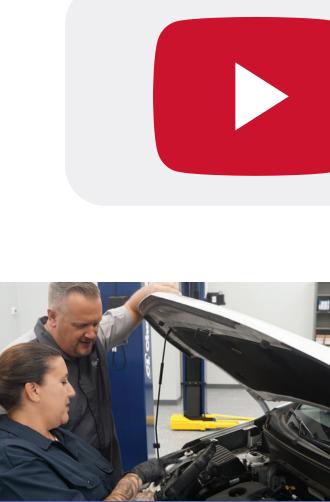
An extension of Echlin<sup>®</sup> training, our extensive YouTube video library has over 500 technical and installation videos.



**Available Classes** 

**Pump Controls** 

Lab Scope Setup









- A6 ASE Electrical Test Prep
- **Diagnosing Electronic 4WD Controls**
- **Diagnosing Electronic Fuel**
- **Relay Testing and Diagnosis**
- **Vehicle Electronic Fundamentals 1-7**

#### **Available Classes**

**Advanced Driveability Diagnostics Body Control Electronics Diagnosis Chassis Electronics Diagnosis Demystifying Electrical Diagnosis Domestic Anti-theft** Labscope Power User Unleash the Power of Your Scan Tool

For information on replacing switches, search "Switches" on the **NAPAEchlin** YouTube channel

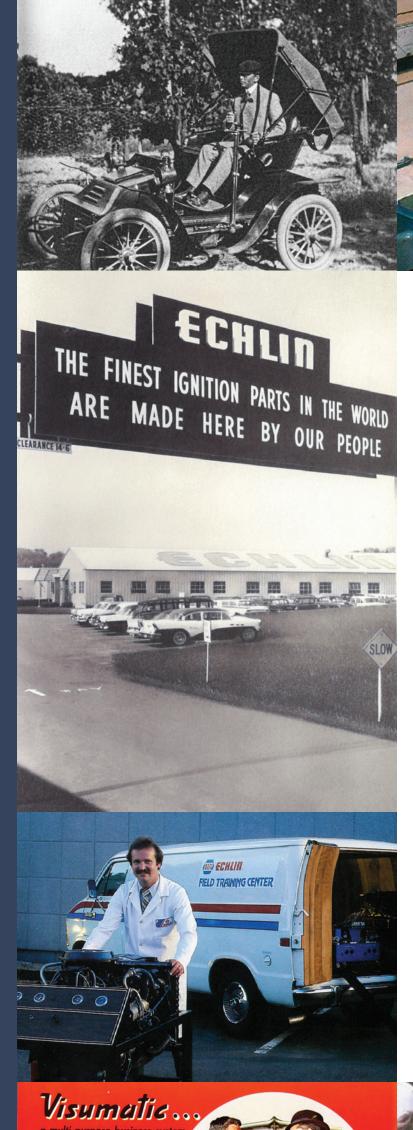




## **100 Years of** Excellence

For 100 years, marketing support materials and advertisements have been created to build Echlin<sup>®</sup> into a well-known, trusted, and reputable national brand.

Building brand loyalty and recognition with professional technicians takes decades. For 100 years, Echlin<sup>®</sup> has been supporting NAPA<sup>®</sup> with national advertising campaigns and more recently, effective technical training programs. Most importantly, the Echlin<sup>®</sup> brand has endured because generations of professional technicians know they can trust what's in the box.



FOR BRINGING IN REPE









Visumatic ... FOR BRINGING IN REPEAT BUSINESS

# **YEARS OF EXCELLENCE**



